

CAU

ANNUAL REPORT

2016-17



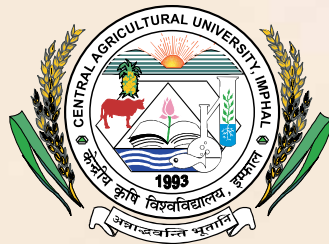
CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Iroisemba, Imphal 795 004, Manipur, India

CAU

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CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL
IROISEMBA, IMPHAL 795004, MANIPUR, INDIA

Annual Report 2016 - 2017 **(April, 2016 to March, 2017)**

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Foreword

The University's Annual Report highlight the institution's many and varied achievements in 2016-17, as well as giving us an opportunity to consider the challenges that lie ahead and outlining the promises of many more achievements yet to come. Ensuring that the Central Agricultural University, Imphal is the destination of choice for students is the key to the success of the University. During the year, the university has achieved commendable success. Two new colleges were established at Thenzawl, Mizoram (College of Horticulture) and at Jalukie Nagaland (College of Veterinary Sciences & Animal Husbandry). The ICAR Peer Review Team, National Agricultural Education Accreditation Board, ICAR, New Delhi has granted accreditation to the University for various academic programmes of UG/PG/Ph.D's from 28th March, 2016 to 27th March, 2021. The University was awarded ICAR-Junior Research Fellowship (JRF) Award for obtaining 2nd position under the programme category of Horticulture and Forestry among all the Agricultural Universities in India. The 1st rank in ICAR Junior Fellowship Exam-2016 for fisheries discipline was bagged by a student of our university. Miss Henuka Rai, a student of College of Horticulture and Forestry, Pasighat, Arunachal Pradesh cleared the UPSC Indian Civil Services Examination-2016. Our students participated at the 17th All India ICAR AGRUNIFEST, 2017, at RAJUVAS, Bikaner, Rajasthan and won two prestigious prizes viz. 1st position in collage and 2nd position in quiz competition. Four awards Mahindra Samridhhi India Agri Award-2017; Mahindra Dr. Daulat Singh Memorial Extension Education Excellence Award-2017; Pandit Deendayal Upadhyay Rashtriya Krishi Vigyan Protshahan Puruskar and Best Exhibition Stall Award at KrishiUnnati Mela-2017 were conferred to the university.

The university conducts region specific, basic and strategic research apart from quality agricultural education and is making efforts to provide solutions to the numerous challenges faced by agriculture sector of the north east region in general and the country in particular. Developing technologies for doubling of farmer's income and ensuring food and nutritional security to the teeming population of the country has been one of its top priorities. The University was successful in developing 86 location specific recommendations and research findings on agriculture and allied disciplines for the farmers and agri-entrepreneurs of the N.E.H. Region. To make our achievements reach the farming community, the university has made efforts to



CENTRAL AGRICULTURAL UNIVERSITY ANNUAL REPORT 2016-17

organize and execute certain important events at constituent colleges to have a technological interaction between scientists, stakeholders and farmers in the form of major events. Periodically all our activities and achievements are published by way of newsletters, farm magazines and books in hindi, english and other local languages and reached out to all the stakeholders.

My grateful thanks go to all our staff for the hard work that has gone during the last year and whose sincere dedication and untiring efforts has resulted in the achievements set out in this report. The extended support from State and Central Governments, esteemed Indian Council of Agricultural Research, National and International Funding Agencies for carrying out research and other activities are highly acknowledged. The cooperation and guidance provided by Hon'ble members of the Board of Management, Finance Committee, Academic Council, Research Council and Extension Education Council is also acknowledged with gratefulness. I wish to particularly acknowledge the editorial team of this progress report for their very valuable efforts which is highly appreciated. I am sure that all our stakeholders would be benefited by the information given in this report and will help them understand the sustained efforts taken by us.

Dated: 21 May 2018
Imphal

(M. Premjit Singh)
Vice Chancellor

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Executive Summary

Academic

The Central Agricultural University (CAU) was established under Department of Agricultural Research and Education (DARE) on 26th January, 1993 by Central Agricultural University Act, 1992 (No.40 of 1992) of Parliament with its headquarters at Imphal, Manipur. It is a fully residential university covering all the North-East Hill states under its jurisdiction except Assam. Like other Agricultural Universities of India, the CAU also has integrated programmes of teaching, research and extension education. With the addition of two new colleges established during the year *viz.* College of Horticulture at Thenzawl, Mizoram and College of Veterinary Sciences & Animal Husbandry at Jalukie, Nagaland, there are 13 constituent colleges under the university. On the recommendations of the ICAR Peer Review Team, the National Agricultural Education Accreditation Board, ICAR, New Delhi granted accreditation to various academic programmes (UG/PG/Ph.D's) of the Central Agricultural University, Imphal (Manipur) and its constituent colleges (College of Agriculture, Imphal, Manipur; College of Veterinary and Animal Sciences, Selesih, Aizawl, Mizoram; College of Horticulture and Forestry, Pasighat, Arunachal Pradesh; College of Fisheries, Lembucherra, Tripura; College of Home Science, Tura, Meghalaya; College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim and College of Post Graduate Studies, Barapani, Meghalaya) from 28th March, 2016 to 27th March, 2021.

The new academic session started from 1st July,

2016 for both UG and Master's courses except College of Veterinary Sciences and Animal Husbandry which is governed by the Minimum Standard for Veterinary Education (MSVE) Regulations 2008 of Veterinary Council of India (VCI), where it started from 1st August, 2016. Ph. D. Programmes for all the colleges started from the 2nd Sept 2016.

As per mandate, the university continues to excel in its commitment to teaching, learning and research with 9 Undergraduate degree programme, 38 Masters and 18 Ph.D in different subjects/disciplines through its 13 constituent colleges. A total of 430, 182 and 40 students were admitted in the under graduate, post graduate and Ph.D. programmes, respectively, during the academic year 2016-17. A total of 222 UG and 107 PG students completed their degrees and 8 students were awarded Ph.D's during this period. Out of the total students' strength of 1756 in the university, 282 belonged to general category, 118 SC, 917 ST and 439 OBC's. Genderwise, out of the total students, 796 students were male and 960 were female with a Male: Female ratio as 0.83:1.

In spite of its remoteness and other location related disadvantages, the university maintained excellent academic environment in its constituent college campuses for professional success of the students. Special coaching programme was arranged in all the constituent colleges to facilitate good performance of students in the national level examinations. The University was awarded ICAR-Junior Research Fellowship (JRF) Award for obtaining 2nd position under the programme



category of Horticulture and Forestry among all the Agricultural Universities. Ms. Bullo Angkha, a student of College of Fisheries, Tripura bagged 1st rank in ICAR Junior Fellowship exam-2016. A total of 55 students have qualified in different national level exams like CAT/JRF/ASRB/GATE/NET/etc. Miss Henuka Rai, a student of College of Horticulture and Forestry, Pasighat, Arunachal Pradesh cleared the UPSC Indian Civil Services Examination-2016 securing national ranking of 931. Students from different constituent colleges of the University were granted more than 516 NTS/ICAR, University and other Merit Scholarships in the year under report. Mr. Naveen Kumar K.L, Ph.D student at College of Post Graduate Studies, Barapani, Meghalaya was granted Jawaharlal Nehru Scholarship for Doctoral Studies.

Student Welfare and Co-curricular Activities

To inculcate the sense of competitiveness among the students in a camaraderie atmosphere, the constituent colleges organized the co-curricular activities in the form of annual college week, sports and games and social/cultural meets. To provide a common platform for the students of constituent colleges located in different states of the region, the University organized annual Inter-Collegiate Games & Sports Meet and Youth Festival on shifting venue basis. The university students participated at the 17th All India ICAR AGRIUNIFEST, 2017, at RAJUVAS, Bikaner, Rajasthan, during 22nd to 25th March 2017 and won two prestigious prizes viz 1st position in Collage and 2nd position in quiz competition. On 2nd October, 2016, all the constituent colleges of the university organized Swachh Bharat Abhiyaan programme to create awareness among the CAU community, the sense of sanitation, hygiene and healthy living in tune with clean environment. The university also organized the International Day of Yoga to inculcate a sense of nationalism through

different community services. The university availed National Social Service (NSS) Scheme by opening NSS cells in all the constituent colleges and organized programmes like blood donation camp, tree plantation, water harvesting, sanitation, health and hygiene activities, eco-environmental conservation and preservation etc. The university also organized animal health camps, field visits, seminar on stress management, communal harmony weeks with poster campaigns and other community service related activities at regular intervals. The first group level 13th National Youth Parliament Competition was conducted on 30th August 2016 at the College of Agriculture CAU, Imphal amongst which six students were selected for the second round. Two Days Documentary Film Festival on Fisheries and Allied Sectors were also organized at College of Veterinary Sciences and Animal Husbandry, Mizoram, during 6th -7th Jan, 2017 in which six educational films were screened.

Research and Development

The University research aims to develop need based research projects through sustainable and eco-friendly scientific and technical approaches for developing agricultural technologies/practices/agricultural machines and equipments which can bring about a far reaching impact on productivity and profitability of crops, animals and fishes and develop new products for value addition, enhance income generation and in turn the socio-economic up-liftment of the people of North Eastern Hills Region. During the reporting year, the University carried out 87 Intramural Research Projects (IRPs) under University Funded Research Programmes, out of these, 20 have been completed and 67 are still ongoing. It has also undertaken 172 Externally Funded Research Projects including 35 All India Co-ordinated Research Projects (AICRPs) and 6 All India Network Research

EXECUTIVE SUMMARY

Projects (AINRPs). Out of the total EFRP's, 57 have been completed and 115 are ongoing. A prestigious project entitled "Enhancing Socio-economic Status and Livelihood Security of Tribal Farmers of NE States through Agricultural Intervention" under Tribal Sub Plan was granted to CAU, Imphal during the year. Under the project, quality seeds, planting materials, animal breeds, fish and improved agricultural tools and implements were distributed which will help to enhance the production and productivity of tribal farmers. Moreover, to generate additional income and to develop entrepreneurship among the trained tribal farmers, they were provided with low-cost poly houses, mushroom houses and vermicompost pits. The intervention of agriculture and allied components like improved breeds of poultry, piggery, goatery, dairy cattle and fish fingerlings will help double the farm income and support their livelihood.

Extension Education

In an effort for popularization of modern innovative and sustainable agriculture and agro based allied activities in the hill states, farmers' education is being extended to the farming communities and technical staffs of line departments from time to time. The Directorate of Extension Education organized 9 training programmes for extension functionaries working in the KVK's and benefitted 218 personals. The directorate organized 15 capacity building training programmes for the farmers/farm women and benefitted 729 persons of the seven NEH states. In an effort for greater outreach among the rural farmers, the directorate also organized CAU Regional Agriculture Fair 2016 at Imphal and benefitted 4700 farmers including women coming from different states of NEH. A total of 57 On Campus and 133 Off Campus trainings for farmers were organized under the three KVKs in which

9068 farmers participated in the trainings. 14 trainings for extension functionaries were organized for knowledge enhancement and 313 personals have been trained for furthering the cause of outreaching the farmers in remote places, including male, female and youths belonging to SC/ST/OBC categories. Further, the directorate also organized 33 on farm trials and 27 Front Line Demonstrations (FLD) under the three KVK(s). The three KVKs of the University produced and distributed 3.7 tonnes of seeds of different field crops and 2,90,000 planting materials of different horticultural crops to the farmers. Moreover, 2400 kg of Rapeseed-Mustard seed was produced in the farms of the university and were distributed to the farmers and different agencies. The directorate also published the CAU Research Newsletter.

Under special farmers welfare oriented programmes like *Unnat Bharat Abhiyan/Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojna*, 18 skill oriented trainings were organized in four states of Manipur, Meghalaya, Mizoram and Tripura and benefitted 542 trainees. *Farmers FIRST Programme* and *Mera Gaon Mera Gaurav (MGMG)* launched in different constituent colleges and KVK's of the university has helped the farmers to increase farm production and supplement their income in the field of agriculture and allied activities. The directorate also published Report on CAU Regional Agri-Fair, 2016-17; Souvenir CAU Regional Agri-Fair, 2016-17; CAU Newsletter – 2017 Vol-1(4); Compendium: Water Harvesting Technology and its Management for *Rabi* Crops; CAU Calendar – 2017; CAU Kisan Diary 2017 (in three languages – English, Hindi and Manipuri versions) and CAU Farm Magazine (in different languages-English, Hindi, Manipuri, Mizo, Bengali and Khasi versions).

Four national awards were conferred to the University: (i) Mahindra Samriddhi India Agri Award-2017 by Mahindra and Mahindra Co. Ltd.



in recognition of purposeful and noteworthy contribution in the field of agriculture, having a positive impact on the farming communities, thus enabling them to rise through successful large scale demonstration on “Zero tillage cultivation of rapeseed-mustard with bee pollination and non-chemical method of plant protection” in more than 1000 ha in rice fallow: (ii) Dr. Daulat Singh Memorial Extension Education Excellence Award-2017 has been conferred to the Prof. M. Premjit Singh, Vice-Chancellor, CAU, Imphal, by Society of Extension Education, Agra for his outstanding contribution in the field of Teaching, Research and Extension Management, (iii) Krishi Vigyan Kendra, East Siang, Arunachal Pradesh under Central Agricultural University, Imphal received the prestigious Pandit Deendayal Upadhyay Rashtriya Krishi Vigyan Protshahan Puruskar for Zone-VI. The KVK has mobilized farmers for adopting innovative technologies in the region and (iv) Best Exhibition Stall Award at Krishi Unnati Mela-2017 has been conferred to KVK, East Siang, Arunachal Pradesh by ICAR, New Delhi.

Human Resource Development

The university has total staff strength of 1021 including 22 administrative, 270 teaching and 729 non-teaching positions. At the headquarters, there are 11 executive officers in the administrative positions supported by 29 technical and 81 non-technical staffs. In the constituent colleges of the university, there are 8 Deans, 270 teaching and 622 non teaching staffs. During the year, 6 personals were newly appointed at headquarter and 131 at constituent colleges. 8 staff members were transferred and 12 superannuated and 8 resigned from the service during the year under report. A total of 109 trainings, workshops, conferences, seminars, summer schools etc were organized at different constituent colleges

of the university. Amongst the teaching staff, 5 teachers went for higher studies. Faculty members were deputed for participation in 13 international, 22 national conferences, 40 seminars, 21 workshops and 6 staff members were deputed for long term training courses and 18 for short term training programmes. Staff members have delivered 123 lectures at various trainings, workshops and other programmes. 32 faculties served as external examiners at various institute and 3 faculties were awarded Ph. D degrees. 17 guest lectures were delivered by reputed scientist/ faculties from other institutes at different constituent colleges of the university. A total of 18 faculties of the university were also recognized for their excellence in research and developmental works and 3 MOU's were signed with reputed institutes during the period for cooperative relationship through mutual assistance in the areas of education, research and extension activities.

Infrastructure Development

Various civil construction works were taken up during the year for meeting the required infrastructural facilities of the university. It included University Headquarter Campus Premises and other corresponding construction works, college buildings, laboratories, hostels, staff quarters, auditorium, information centres, canteen, post office, bank and security barracks etc. Work for establishment of multi technology testing centers and vocational training centers in all the existing constituent colleges is under progress.

University Publications

Faculties of constituent colleges of the university have published 486 research literatures including 208 full length research and digital object identifier (DOI) articles, 36 seminar proceedings, 66 papers presented

EXECUTIVE SUMMARY

in seminars, symposia, 80 popular articles, 11 books, 30 book chapters and 55 manuals/pamphlets.

Visitors

The university witnessed the visits of 85

eminent visitors in different college campuses located in seven states of the north east hill region of India during the reporting year. The visitors included eminent administrators, scientists, faculties, meritorious students and progressive farmers of varied experiences.





1



The University



CENTRAL Agricultural University (CAU), Imphal was established in the year 1993 under the Central Agricultural University Act, 1992 of the Parliament (Act No. 40 of 1992). The act authorized CAU to establish need based Educational Institutions in Agriculture in the North-Eastern Hill (NEH) Region of India. The Central Agricultural University, Imphal has thirteen constituent colleges, viz. the College of Agriculture (Iroisemba, Imphal, Manipur), College of Fisheries (Lembucherra, Agartala, Tripura), College of Home Science (Tura, Meghalaya), College of Horticulture & Forestry (Pasighat, Arunachal Pradesh), College of Veterinary Science & Animal Husbandry (Selesih, Aizawl, Mizoram), College of Agricultural Engineering & Post Harvest Technology (Ranipool, Gangtok, Sikkim), College of Post Graduate Studies, (Barapani, Meghalaya), College of Food Technology (Lamphelpat, Manipur), College of Agriculture (Kyrdemkulai, Meghalaya and Pasighat, Arunachal Pradesh), College of Horticulture (Bermiok, Sikkim) and two newly established colleges, College of Horticulture (Thenzawl, Mizoram) and College of Veterinary Sciences & Animal Husbandry (Jalukie, Nagaland) to carry out teaching, research and extension education programmes in agriculture and allied disciplines in the NEH region.

I.I Mandates, Mission, Goals and Objectives

1.1.1 Mandates

The mandate of the University as stipulated in the Act are:

- To impart education in different branches of agriculture and allied sciences as it may deem fit,
- To further the advancement of learning and prosecution of research in agriculture and allied sciences,
- To undertake programmes of extension education in the states under its area of jurisdiction and
- To undertake such other activities as it may determine from time to time.

1.1.2 Mission

Keeping the mandate in view, the mission of the university is to be a Centre of Excellence in Teaching, Research and Extension Education in the field of Agriculture and Allied Sciences.

1.1.3 Goals

To fulfill the mission, the university has set the following goals:

- To produce globally competitive graduates and postgraduates in agriculture and allied sciences.
- To develop sustainable and profitable farming systems for enhancing productivity, production and profitability in agriculture and allied sectors.
- To educate the extension functionaries for effective dissemination of agro-technologies to the farmers, entrepreneurs and agro-industries.
- To be an important link in the chain for transforming agriculture and allied vocations into profitable enterprises and ensuring food and nutritional security to the people of NEH region.

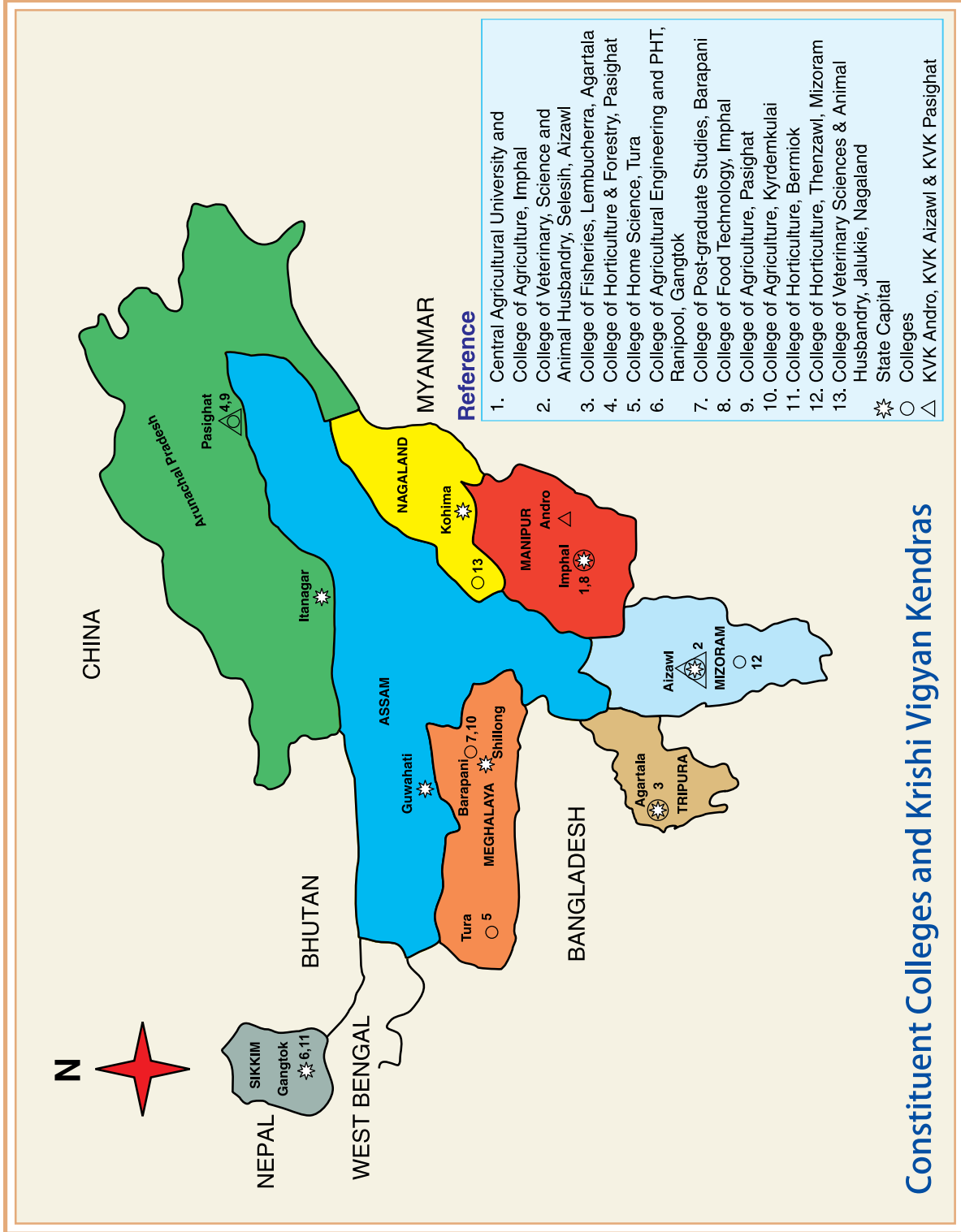
1.1.4 Objectives

To meet the goals, the University has laid down the following objectives:

- To establish and develop excellent constituent colleges that offer undergraduate and postgraduate education in various states of the NEH Region under the area of jurisdiction of the university in the fields of agriculture, agricultural engineering, food technology, fisheries, home science, horticulture, forestry and veterinary sciences and animal husbandry.
- To impart quality education so as to produce globally competitive graduates and post-graduates in different areas of agriculture and allied sciences including interdisciplinary areas, who are confident and capable of working as scientists, entrepreneurs, managers, agro-industrial workers and progressive farmers.
- To establish research stations and specialized research laboratories for taking up basic and applied research by the scientists and postgraduate students.
- To develop and demonstrate alternative farming systems which help the farmers to improve their productivity and profitability while preserving and improving the environment.
- To establish transfer of technology centers including Krishi Vigyan Kendras (Farm Science Centers) for developing effective extension methodologies and training the trainers in information dissemination.
- To popularize improved farming systems, technologies and equipment on pilot basis as a model for other extension agencies.
- To offer short-term refresher and vocational courses and training programmes to the officials of state government departments, farmers, entrepreneurs and agro-industrial houses.
- To have collaborations in the field of teaching, research, transfer of technology and developmental activities with the development departments of the state as well as national and international institutions including industrial and business houses.
- To provide consultancy services to progressive farmers, agro-industries and others involved in agriculture and allied sectors.
- To act as documentation and information center on agricultural education, research, extension methodology and rural development.

1.2 Area of Jurisdiction

The Central Agricultural University, Imphal has its area of jurisdiction over North-Eastern Hill (NEH) Region of India. It encompasses the states of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim, Tripura and Nagaland. The states of Arunachal Pradesh and Sikkim are located in the Biodiversity Hotspot of Eastern Himalayan region while the states of Manipur, Meghalaya, Mizoram, Tripura and Nagaland are located in the Indo-Burma Biodiversity Hotspot region. There are camp offices of the Hon'ble Vice Chancellor in every constituent college for routine stay at regular intervals. It provides students and employees easy access to the competent authority and can discuss any issues, grievances etc for amicable solution. To avoid any administrative constraints, all the constituent colleges are well connected digitally and can communicate at any time.



Constituent Colleges and Krishi Vigyan Kendras

THE UNIVERSITY



College of Agriculture, Imphal



College of Veterinary Sciences & Animal Husbandry, Aizawl

1.2.1 Constituent Colleges of the University

1.2.1.1 College of Agriculture, Iroisemba, Imphal, Manipur

The College of Agriculture, Imphal was established as first constituent College of Central Agricultural University, Imphal after taking over the erstwhile Manipur Agricultural College from Manipur University in November, 1993. The College is situated in an extensive area of Iroisemba, at a distance of about 6 kms from Imphal city. The picturesque campus of College, covering an area of about 44 acres of land is surrounded by Langol Hilllocks to its Western and Northern sides.

1.2.1.2 College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram

The College of Veterinary Sciences & Animal Husbandry, was established through the promulgation of an Ordinance (No. M-2 of 1995; dated 20th February 1995) and became functional with the admission of first batch of 10 students to B.V.Sc. & A.H. degree programme in the year 1997-98. The college is located at Selesih, North Aizawl, 12 km away from Aizawl, the capital city of Mizoram. The campus is spread over 168.61 acres of land, mostly of hilly terrain at an altitude of 965 meter above the mean sea level.

1.2.1.3 College of Fisheries, Lembuchera, Tripura

The College of Fisheries, Lembuchera, Tripura was established on 3rd October, 1998 and is located at Lembucherra, at a distance of 12 km north of Agartala, having a total area of 22.5 ha. The College of Fisheries has been working on generating qualified human resources besides imparting research and training needs to the thurst area of fisheries and aquaculture in the entire NE region.



College of Fisheries, Lembuchera

1.2.1.4 College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

The College of Horticulture and Forestry, was established on March 7, 2001, at Pasighat, Arunachal Pradesh. It is located on the banks



College of Horticulture & Forestry, Pasighat

of the river 'Siang' spreading over 54.1 ha of land.

1.2.1.5 College of Home Science, Tura, Meghalaya

College of Home Science, Tura, was established with a goal to refine and promote the skills of rural and tribal women and to improve the quality of life of families in the North-East Region with an objective to cater to women's education, bearing in mind the key role that they play in their homes, and farm and allied activities. Meghalaya, being a state which follows a matrilineal system, was perhaps thought of as the most suitable place to start a college that imparts education in Home Science to girl students by refining their visible roles as home makers and income generators. The College of Home Science started its first academic session from 24th September, 2004.



College of Home Science, Tura

1.2.1.6 College of Agricultural Engineering & Post Harvest Technology, Ranipool, Gangtok, Sikkim

The College of Agricultural Engineering and Post-Harvest Technology, Gangtok was established by CAU, Imphal in May 2006. The college is situated at Ranipool, at a distance of 10 kms from Gangtok, the capital city of Sikkim. The College campus is spread over an area of 4.25 ha of land at an altitude of 2438.4 m above the mean sea level, mostly hilly terrain comprising of terraces, hill slopes and valley land.



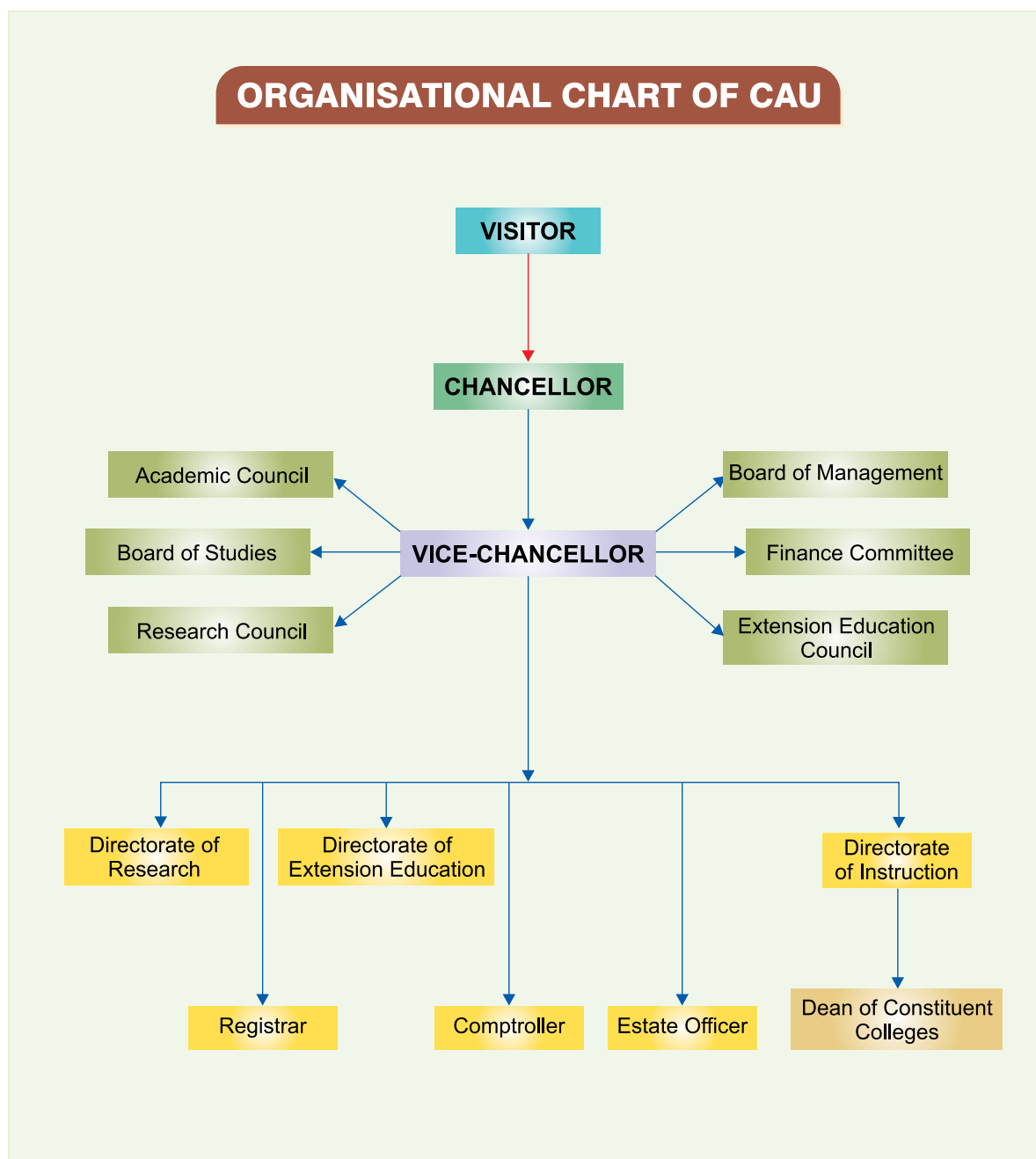
College of Agricultural Engineering & Post Harvest Technology, CAU, Ranipool

1.2.1.7 College of Post Graduate Studies, Umiam (Barapani), Meghalaya

The College of Post Graduate Studies (CPGS), Barapani was established in 2007 at Umiam (Barapani) in Ri-bhoi District at a distance



College of Post Graduate Studies, Umiam



of 20 kms from Shillong, the capital city of Meghalaya.

1.2.1.8 College of Food Technology, Lamphelpat, Imphal, Manipur

The College of Food Technology was recently established at Lamphelpat, Imphal and started

its first academic session from July, 2015. The college is temporarily operating from the campus of College of Agriculture, Iroisemba, Imphal.

1.2.1.9 College of Agriculture, Pasighat, Arunachal Pradesh

The College of Agriculture was also established



recently at Pasighat, Arunachal Pradesh and started its first academic session from July, 2015. The college is temporarily operating from the campus of College of Horticulture and Forestry, Pasighat.

1.2.1.10 College of Agriculture, Kyrdemkulai, Meghalaya

The College of Agriculture at Kyrdemkulai, Meghalaya is temporarily operating from the campus of College of Post Graduate Studies, Barapani, Meghalaya and started its first academic session from July, 2015.

1.2.1.11 College of Horticulture, Bermiok, Sikkim

The College of Horticulture was recently established at Bermiok, Sikkim and is temporarily operating from the campus of College of Agricultural Engineering and Post Harvest Technology, Ranipool, Gangtok, Sikkim. The college started its first academic session from July, 2015.

1.2.1.12 College of Horticulture, Thenzawl, Mizoram

Foundation Stone for College of Horticulture, Thenzawl was laid by Hon'ble Union Agriculture & Farmers Welfare Minister Shri Radha Mohan Singh in the presence of Hon'ble Home & Agriculture Minister, Govt. of Mizoram,



College of Horticulture, Thenzawl

Shri R. Lalzirliana on 18th June 2016. The 1st academic session was started on 15th July, 2016 with 17 students who were admitted in the first batch of B.Sc. Horticulture. Currently classes are held at Krishi Vigyan Kendra (ATIC), Selesih, Aizawl until the construction is fully ready in Thenzawl.

1.2.1.13 College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland

College of Veterinary Sciences and Animal Husbandry, Jalukie, Peren District, Nagaland was inaugurated by the Union Minister of Agriculture and Farmers Welfare, Shri Radha Mohan Singh on 6th August 2016 and became functional with the admission of first batch of students to BVSc & AH degree programme on 15th September 2016. The College is located at Jalukie town under Peren District which is about 71.1 kms away from Dimapur, Nagaland. The campus of the College is spread over 266 acres of land which is mostly semi slope area.



College of Veterinary Sciences & Animal Husbandry, Jalukie

I.3 Statutory Authorities and Officers of the University

The Board of Management, Academic Council, Research Council, Extension Education Council, Finance Committee, Board of Studies and such

other authorities as prescribed by the statute are the statutory authorities of the university.

The statutory officers of the university are the Chancellor, Vice-Chancellor, Director of Instruction, Director of Research, Director of Extension Education, Dean of Colleges, Registrar, Comptroller and Estate officer.

I.4 Highlights of Academics and Student Welfare

1.4.1 Academic Activities

On the recommendations of the ICAR Peer Review Team, the National Agricultural Education Accreditation Board, ICAR, New Delhi granted accreditation for various academic programmes (UG/PG/Ph.D's) to the Central Agricultural University, Imphal (Manipur) and its constituent colleges (College of Agriculture, Imphal, Manipur; College of Veterinary and Animal Sciences, Selesih, Aizawl, Mizoram; College of Horticulture and Forestry, Pasighat, Arunachal Pradesh; College of Fisheries, Lembucherra, Tripura; College of Home Science, Tura, Meghalaya; College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim and College of Post Graduate Studies, Barapani, Meghalaya) from 28th March, 2016 to 27th March, 2021.

The new academic session started from 1st July, 2016 for both UG and Master's courses except College of Veterinary Sciences and Animal Husbandry where it started from 1st August, 2016. The Ph. D. Programmes for all the colleges started from 2nd Sept 2016. A total of 430, 182 and 40 students were admitted to the under graduate, post graduate and Ph. D. programmes, respectively, during the academic year 2016-17. A total of 222 UG and 107 PG students completed their degrees and 8 students were also awarded Ph.Ds during this period. Out of the total students' strength of 1756 in the university, 282 belonged to general category,

118 SC, 917 ST and 439 OBC's. Out of them, 796 students were male and 960 were female amounting to Male: Female ratio as 0.83:1. A total of 55 students have qualified in different national level exams like CAT/JRF/ASRB/GATE/NET/etc. during the year. Students from different constituent colleges of the University were granted more than 516 NTS/ICAR, University and other Merit Scholarship in the year under report.

1.4.2 Students' Welfare

The university offers excellent opportunities to young minds and facilitates the accomplishment of their creative talent with emphasis on character building. The university provides a very healthy and conducive environment for co-curricular and extra-curricular activities for all round development of moral and physical health of students. The university has good play grounds/gymnasium, information centre and placement cell in constituent colleges. Each college has good auditorium with all facilities, health center, canteen, ATM and post office. All colleges celebrated the college week where students competed in various sports, games and cultural activities. All colleges have either N.C.C. or N.S.S. units under which students are engaged in actual social works in and around college campuses to develop a sense of service, team spirit and dignity of labour.

The university has an exemplary record of placement through campus interviews during last couple of years in a number of private and public sector organizations, government undertakings. The students of the university showed excellent performance at national level competitive examinations such as JRF and admissions in national/premier institutes of higher studies.

I.5 Highlights of Research and Developmental Activities

The university has a separate Directorate of



Research to coordinate, supervise, monitor and evaluate all the research activities. The university research aims at developing technologies which can bring about far reaching impact on production, productivity and profitability of crops, animals and fish through sustainable and eco-friendly scientific and technological approaches for socio-economic up-liftment of the people of N.E.H. Region.

In order to fulfill the research objectives of the university, a number of need based location specific problem solving, internally and externally funded basic, strategic and applied research projects are being taken up in all the constituent colleges and Directorate of Research.

During the year under report, University carried out 87 (eighty seven) Intramural Research Projects (IRPs) under University Funded Research Programmes, out of these, 20 have been completed and 67 are still ongoing. It has also undertaken 172 (one hundred seventy two) Externally Funded Research Projects including 35 (thirty five) All India Co-ordinated Research Projects (AICRPs) and 6 (six) All India Network Research Projects (AINRPs). Out of the total EFRP's, 57 have been completed and 115 are ongoing. The University was successful in developing 86 location specific recommendations and research findings on agriculture and allied disciplines for the farmers and agri-entrepreneurs of the N.E.H. Region. A number of recommendations have been made that helped in the development of agro based crop improvement, plant protection, and economically sustainable technologies specific for agro based activities.

I.6 Highlights of Extension Education

Dissemination of information through field

days, fairs, training programmes are the significant ways to popularize any new pioneer technologies to the farming community. The university has made efforts to organize and execute certain important events at various colleges to have a technological interaction between scientists, stakeholders and farmers in the form of major events.

The Directorate of Extension Education organized 9 training programmes for extension functionaries working in the KVK's which benefitted 218 persons. The directorate organized 15 capacity building training programmes for the farmers/farm women and benefitted 729 persons of the seven NEH states. In an effort for greater outreach among the rural farmers, the directorate also organized CAU Regional Agriculture Fair 2016 and benefitted 4700 farmers including women coming from different states of NEH.

The Directorate of Extension Education monitors the activities of the three KVKs' under CAU. The major activities of the KVK's are including Vocational Training of the Farmers, Frontline Demonstration of newly developed Agricultural Technology Packages etc. Further, 2400 kg seed of Rapeseed-Mustard produced in the farms of the university were distributed to the farmers. In addition, the three KVKs of the University produced and distributed 3.7 tonnes of seeds of different field crops and 2,90,000 planting materials of different horticultural crops to the farmers.

A total of 57 On Campus and 133 Off Campus trainings for farmers were organized under the three KVKs. Altogether, 9068 farmers participated in these activities and were benefitted from the trainings. Fourteen trainings were organized for extension functionaries for knowledge enhancement and 313 personals have been trained for furthering the cause of outreaching the

farmers in remote places, including male, female and youths belonging to SC/ST/OBC categories. Further, it also organized thirty three on farm trials and twenty seven Front Line Demonstrations (FLD) under the three KVK(s). Moreover, the directorate also published Report on CAU Regional Agri-Fair, 2016-17; Souvenir CAU Regional Agri-Fair, 2016- 17; CAU Newsletter – 2017 Vol-1(4); Compendium: Water Harvesting Technology and its Management for Rabi Crops; CAU Calendar – 2017; CAU Kisan Diary 2017 (in three languages – English, Hindi and Manipuri versions) and CAU Farm Magazine (in different languages–English, Hindi, Manipuri, Mizo, Bengali and Khasi versions).

Special Farmers Welfare Oriented Programmes were also conducted by the directorate. Under *Unnat Bharat Abhiyan / Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojna*, a special, innovative and farmers welfare oriented programme sponsored by Ministry of Agriculture & Farmers' Welfare, Govt. of India, 18 skill oriented trainings were organized in four states of Manipur, Meghalaya, Mizoram and Tripura and benefitted 542 trainees. *Farmers FIRST Programme* and *Mera Gaon Mera Gaurav (MGMG)* launched in different constituent colleges and KVK's of the university has helped the farmers to increase farm production and supplement their income in the field of agriculture and allied activities. Four projects were also undertaken during the period viz. (i) Sustainable Livelihood Development of Farmers in Manipur through Participatory Technology Application (ii) Integrated Beekeeping Development Centre under Centre of Excellence (iii) Assistance to the Tribal Farmers of Manipur for income generation & livelihood security and (iv) Augmenting Rapeseed-Mustard Production by Tribal Farmers of NE State for Sustainable livelihood Security.

I.7 Highlights of Human Resource Development

The overall performance of the staff and officers of the university improved through updating and upgrading their knowledge by allowing them to participate in advanced trainings, workshops, and conferences, symposia of national and international levels. The University encourages and supports all the colleges by deputing the staff and faculty members for higher studies. Each college arranges distinct on-campus and off-campus trainings of common interests by inviting the experts from outside the institution.

I.8 Highlights of Works and Infrastructure Development

Best possible efforts have been made to improve the infrastructural facilities in all the constituent colleges of the university. Nevertheless, significant achievements were made on various infrastructure development works in all the constituent colleges including the college buildings, laboratories, hostels, staff quarters, auditoriums, information centers, canteen, bank and post office buildings and also other buildings required for smooth running of the colleges.

I.9 New and On-going Initiatives

The following new and ongoing initiatives were continued as envisaged in the annual plan:

- i) Location specific problem solving Intramural Research Projects.
- ii) Extension Demonstration and Exhibition of New Technologies.
- iii) Innovative Extension Programmes in Colleges and KVKs.
- iv) Informal/Vocational Education Programmes for farmers/college dropouts.
- v) Experiential Learning Programmes of students.



- vi) Soft Skills and Personality Development Programmes.
- vii) Formal Training Programmes for Line Departments.

I.IO Significant achievements of the University

The university continues to excel in the areas of teaching, research and extension activities:

- ICAR-Junior Research Fellowship (JRF) Award for obtaining 2nd position under the programme category of Horticulture and Forestry among all the Agricultural Universities.
- A student of College of Fisheries, Lembucherra, Tripura, Ms. Bullo Angkha, bagged 1st rank in ICAR Junior Fellowship Exam-2016.
- Miss Henuka Rai, a student of College of Horticulture and Forestry, Pasighat, Arunachal Pradesh cleared the UPSC Indian Civil Services Examination-2016 securing national ranking of 931.
- Mr. Naveen Kumar K.L, Ph.D student at College of Post Graduate studies, Barapani, Meghalaya was granted Jawaharlal Nehru Scholarship for Doctoral Studies.
- Mahindra Samridhi India Agri Award-2017 (National Award) has been conferred to the Central Agricultural University, Imphal by Mahindra and Mahindra Co. Ltd. in recognition for its purposeful and noteworthy contribution to the field of agriculture, having a positive impact on the farming communities, thus enabling them to rise through successful large scale demonstration on “Zero tillage cultivation of rapeseed-mustard with bee pollination and non-chemical method of plant protection” in more than 1000 ha in rice fallow.
- Dr. Daulat Singh Memorial Extension Education Excellence Award-2017 has been conferred to Prof. M. Premjit Singh, Vice-Chancellor, CAU, Imphal, by Society of Extension Education, Agra for his outstanding contribution in the field of Teaching Research and Extension Management.
- Krishi Vigyan Kendra, East Siang, Arunachal Pradesh under Central Agricultural University, Imphal received the prestigious Pandit Deendayal Upadhyay Rashtriya Krishi Vigyan Protshahan Puruskar for Zone-VI on March 15, 2017 at New Delhi. The KVK has mobilized farmers for adopting innovative technologies in the region.
- Best Exhibition Stall Award at Krishi Unnati Mela-2017 has been conferred to KVK, East Siang, Arunachal Pradesh by ICAR, New Delhi

2



Academics & Student Welfare



T HE Central Agricultural University offered 9 Undergraduate, 38 Masters and 18 Ph.D. Degree Programmes in different subjects/disciplines through its 13 constituent colleges. The university maintains common Academic Calendar for all courses except B.V.Sc. & AH, which is governed by the Minimum Standards for Veterinary Education (MSVE Regulations of 2008, Veterinary Council of India). Admission in all the courses is made on the basis of rules framed by the admission committee of the University and Constituent Colleges. The Selection/Nomination of candidates is made through Competitive Entrance Test conducted by the concerned state and All India JEE conducted by Indian Council of Agricultural Research (ICAR), Krishi Anusandhan Bhawan, Pusa New Delhi and concerned member states located within the jurisdiction of CAU, Imphal. Candidates seeking admission should be a permanent resident or domicile of any of the seven states of the NE Region, covered under the jurisdiction of the University. However, this condition is not applicable to the nominees of ICAR/VCI or any special category of nominees as decided by the University and Department of Agricultural Research and Education, Government of India.

2.1 Academic Activities of the University

All the colleges have well qualified experienced faculty members catering to the academic needs of the students. The comfortable staff to student ratio creates an engaged and interactive teaching environment. The university follows student advisory system where each faculty is allotted student to help him/her with academic or other personal problems during their degree programme. Classrooms are well secured, adequately furnished and equipped with the latest state of art technology including smart class room facilities and close circuit camera etc. Sanitary lavatories for both the boys & girls and teaching and non teaching staffs are also attached with the classrooms. All the laboratories are well furnished and equipped with high tech equipments for classroom, research and extension activities. Every college has computer laboratory which is connected with high speed internet facilities which can be accessed 24 x 7 hour's.

On the recommendations of the ICAR Peer Review Team, the National Agricultural Education Accreditation Board, ICAR, New Delhi granted accreditation to the Central Agricultural University, Imphal (Manipur) and its following constituent colleges up to March 27, 2021. The details of the accredited academic programmes of Central Agricultural University, Imphal (Manipur) are given below:

College/Faculty/School	Period of Accreditation	Bechelor Degree Programmes	Master Degree Programmes	Ph.D. Pro-grammes
College of Agriculture, Imphal, Manipur	28.03.2016 to 27.03.2021	B.Sc. (Agriculture)	M.Sc. (Agriculture) in Agronomy, Horticulture, Plant Breeding and Genetics, Plant Pathology, Entomology, Soil Science and Chemistry, Agricultural Extension, Agricultural Economics	-

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College/Faculty/School	Period of Accreditation	Bechelor Degree Programmes	Master Degree Programmes	Ph.D. Pro-grammes
College of Veterinary and Animal Sciences, Selesih, Aizawl, Mizoram	28.03.2016 to 27.03.2021	B.V.Sc. & AH	M.V.Sc & AH in Veterinary Surgery and Radiology, Livestock Production and Management, Veterinary Medicine, Animal Nutrition, Veterinary Microbiology, Veterinary Pathology, Animal Gynecology and Obstetrics, Animal Genetics and Breeding, Veterinary Biochemistry, Livestock Products Technology, Veterinary Public Health & Epidemiology	Ph.D. in Veterinary Pathology, Veterinary Microbiol-ogy
College of Horticulture and Forestry, Pasighat, Arunachal Pradesh	28.03.2016 to 27.03.2021	B.Sc. (Horticulture), and B.Sc. (Forestry)	M.Sc. (Horti) in Fruit Science, Vegetable Science	-
College of Fisheries, Lembucherra, Tripura	28.03.2016 to 27.03.2021	B.F.Sc.	M.F.Sc. in Aquaculture, Fish Processing Technology, Fish Genetics and Breeding, Aquatic Animal Health Management, Fisheries Extension	-
College of Home Science, Tura, Meghalaya	28.03.2016 to 27.03.2021	B.Sc. (Home Science)	-	-
College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim	28.03.2016 to 27.03.2021	B.Tech. (Agril Engineering), and B.Tech. (Food Technology)	M.Tech. (Agril Engg) in Soil & Water Conservation Engineering, Farm Machinery & Power Engineering, Food Process Engineering	-
College of Post Graduate Studies, Barapani, Meghalaya	28.03.2016 to 27.03.2021		M.Sc. in Agriculture, Agricultural Extension, Agricultural Economics, Agronomy, Soil Science, Entomogy, Plant Pathology, Genetics & Plant Breeding, Plant Molecular Biology & Biotechnology	Ph.D. in Agriculture, Agricultural Extension, Agricultural Economics, Agronomy, Soil Sci-ence, Plant Pathology, Genetics & Plant Breeding, Plant Mo-lecular Biol-ogy & Bio-technology



2.1.1 Teaching

The details of state wise seats allocated to different UG programmes in constituent colleges during 2016-17 are given in Table 2.1.1.

Table 2.1.1: Students allocation during 2016-17, from different states of North-Eastern Hill Region for UG programme

Sl. No.	Name of College	Degree Programme	States										Total
			Arunachal Pradesh	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	ICAR/ VCI	Others (J&K migrant)		
1.	College of Agriculture, Imphal, Manipur	B.Sc.(Hons) Agriculture	12	16	14	09	-	09	16	13	-	89	
2.	College of Food Technology, Lamphelpat, Manipur	B.Tech (Food Tech)	02	05	03	02	-	01	04	03	-	20	
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	B.Tech. (Agricultural Engineering)	06	08	06	05	-	05	08	07	-	45	
		B.Tech. (Food Technology)	02	04	02	02	-	03	04	03	-	20	
4.	College of Horticulture, Bermiok, Sikkim	B.Sc. (Hons.) Horticulture	02	04	03	01	-	04	03	03	-	20	
5.	College of Fisheries, Lembucherra, Tripura	Bachelor of Fisheries Science (B.F.Sc.)	04	09	03	03	-	03	09	05	-	36	
6.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Horticulture	07	07	06	06	04	06	07	07	-	50	
		B.Sc. (Hons) Forestry	04	05	03	04	-	03	04	04	-	27	
7.	College of Agriculture, Pasighat, Arunachal Pradesh	B.Sc. (Hons) Agriculture	05	03	02	02	-	02	03	03	-	20	
8.	College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Mizoram	B.V.Sc & A.H.	08	09	09	12	04	06	11	11	02	72	
9.	College of Home Science, Tura, Meghalaya	B.Sc. (Hons) Community Science	05	06	07	03	-	03	05	05	-	34	
		B.Sc. (Hons) Nutrition & Dietetics	02	03	05	02	-	02	03	03	-	20	
10.	College Of Horticulture Thenzawl, Mizoram	B.Sc. (Hons.) Horticulture	02	04	02	04	-	01	04	03	-	20	

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Sl. No.	Name of College	Degree Programme	States									
			Arunachal Pradesh	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	ICAR/ VCI	Others (J&K migrant)	Total
11.	College of Agriculture, Kyrdem Kulai, Ri-Bhoi, Meghalaya	B. Sc. (Hons.) Agriculture	02	04	04	02	-	01	04	03	-	20
12.	College of Post Graduate Studies, Umiam, Meghalaya	No UG programme	-	-	-	-	-	-	-	-	-	-
13.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	B.V.Sc. & A.H	03	04	03	03	06	02	04	05	-	30
TOTAL			66	91	72	60	14	51	89	78	02	523

2.1.2 Intake capacity and number of students admitted in 2016-17

The new academic session started from 1st July, 2016 for both UG and Master's courses except College of Veterinary Sciences and Animal Husbandry where it started from 1st August, 2016. Ph. D. Programmes for all the colleges started from the 2nd Sept 2016. A total of 430, 182 and 40 students were admitted in various Under-graduates, Masters and Ph.D programmes, respectively. The college wise break-up of intake capacity, number of students admitted and number of students graduated are given in Table 2.1.2.

Table 2.1.2: Intake capacity admitted and passed out students during the academic session, 2016-17.

A. Under Graduate programme

Sl. No.	Name of College	Degree Programme	Intake Capacity	No. of Students Admitted	No. of Students Graduated
1.	College of Agriculture, Imphal, Manipur	B.Sc. (Hons.) Agriculture	89	82	49
2.	College of Food Technology, Lamphelpat, Manipur	B. Tech (Food Tech)	20	15	-
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	B. Tech. (Agricultural Engineering)	45	44	29
		B. Tech. (Food Technology)	20	09	07
4.	College of Horticulture, Bermiok, Sikkim	B.Sc. (Hons.) Horticulture	20	17	-
5.	College of Fisheries, Lembucherra, Tripura	B.F.Sc.	36	29	24
6.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Horticulture	50	49	37
		B.Sc. (Hons.) Forestry	27	22	14



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Sl. No.	Name of College	Degree Programme	Intake Capacity	No. of Students Admitted	No. of Students Graduated
7.	College of Agriculture, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Agriculture	20	19	-
8.	College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Mizoram	B.V.Sc & A.H.	72	64	48
9.	College of Home Science, Tura, Meghalaya	B. Sc. (Hons.) Community Science	34	05	14
		B.Sc. (Hons.) Food Nutrition & Dietetics)	20	14	-
10.	College of Horticulture Thenzawl, Mizoram	B.Sc. (Hons.) Horticulture	20	17	-
11.	College of Agriculture, Kyrdem Kulai, Ri-Bhoi, Meghalaya	B.Sc. (Hons.) Agriculture	20	17	-
12.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	B.V.Sc. & A.H	30	27	-
Total			523	446	222

B. Master's programme

Sl. No.	Name of College	Degree Programme	Discipline	Intake Capacity	No. of Students Admitted	No. of Students awarded
1.	College of Agriculture, Imphal, Manipur	M.Sc. (Agriculture)	Agronomy	07	07	04
			Ag. Economics	04	04	03
			Extn. Education	07	07	03
			Entomology	07	07	03
			Horticulture	07	07	03
			Plant Pathology	05	05	05
			Genetics & Plant Breeding	07	07	05
			Soil Science & Agricultural Chemistry	07	07	04
			Sub Total	51	51	30
2.	College of Post-Graduate Studies, Umiam, Meghalaya	M.Sc. (Agriculture)	Agronomy	07	06	05
			Soil Science & Agricultural Chemistry	07	07	05
			Genetics & Plant Breeding	07	07	04
			Plant Molecular Biology & Biotechnology	07	06	03
			Entomology	07	07	05
			Plant Pathology	07	07	04
			Agricultural Economics	07	07	04
			Agricultural Extension	07	07	04
			Sub Total	56	54	34

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Sl. No.	Name of College	Degree Programme	Discipline	Intake Capacity	No. of Students Admitted	No. of Students awarded
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	M. Tech.	Farm Machinery & Power Engineering	05	01	-
			Soil & Water Engineering	05	01	-
			Food Engineering	03	02	-
			Sub Total	13	04	-
4.	College of Fisheries, Lembucherra, Tripura	M.F.Sc.	Aquatic Animal Health (AAH)	05	05	04
			Fish Processing Technology (FPT)	03	03	04
			Aquaculture (AQU)	05	05	05
			Fisheries Extension (FEX)	05	05	01
			Fisheries Resource Management (FRM)	05	05	04
			Fish Genetics & Breeding (FGB)	05	05	04
Sub Total	28	28	22			
5.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	M.Sc. Horticulture	M.Sc. (Hort.) Vegetable Science	05	05	04
			M.Sc. (Hort.) Fruit Science	05	05	05
			M.Sc. (Hort.) Forestry	03	03	-
Sub Total	13	13	09			
6.	College of Agriculture, Pasighat, Arunachal Pradesh	-	-	-	-	-
7.	College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Mizoram	Master of Veterinary Sciences	Animal Genetics & Breeding	04	03	-
			Animal Nutrition	04	02	-
			Veterinary Gynaecology & Obstetrics	04	04	01
			Veterinary & Animal Husbandry & Extension	03	01	03
			Veterinary Anatomy & Histology	03	02	01
			Livestock Production Management	04	02	-
			Livestock Products Technology	04	03	-
			Veterinary Medicine	04	04	01
			Veterinary Microbiology	04	03	01
			Veterinary Parasitology	02	01	-
			Veterinary Pathology	04	03	01
Veterinary Public Health	04	01	01			



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Sl. No.	Name of College	Degree Programme	Discipline	Intake Capacity	No. of Students Admitted	No. of Students awarded
			Veterinary Surgery & Radiology	04	02	02
			Veterinary Physiology	03	-	01
			Veterinary Biochemistry	04	-	-
			Sub Total	55	31	12
8.	College of Home Science, Tura, Meghalaya	M.Sc. Community Science	Community Science (Food and Nutrition)	02	01	-
	Sub Total			02	01	-
	Grand Total			218	182	107

C. Ph. D. Programme

Sl. No.	Name of the Constituent College	Degree Programme	Discipline	Intake Capacity	No. of Students Admitted	No. of Students awarded
1.	College of Agriculture, Imphal, Manipur	Ph.D. (Agriculture)	i) Agronomy	03	03	-
			ii) Plant Pathology	02	02	-
			iii) Plant Breeding & Genetics	03	03	-
			iv) Soil Science & Agricultural Chemistry	03	03	-
			Sub Total	11	11	-
2.	College of Post-Graduate Studies, Umiam, Meghalaya	Ph.D. (Agriculture)	i) Agronomy	03	03	02
			ii) Soil Science & Agricultural Chemistry	03	01	-
			iii) Genetics & Plant Breeding	03	03	-
			iv) Plant Molecular Biology & Biotechnology	03	03	01
			v) Plant Pathology	03	03	-
			vi) Agricultural Economics	03	03	03
			vii) Agricultural Extension	03	03	02
			Sub Total	21	19	08
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	Ph.D.	Farm Machinery & Power Engineering	02	01	-
			Sub Total	02	01	-
4.	College of Fisheries, Lembucherra, Tripura	Ph.D.	Aquatic Animal Health (AAH)	03	02	-
			Sub Total	03	02	-

ACADEMICS AND STUDENTS WELFARE

Sl. No.	Name of the Constituent College	Degree Programme	Discipline	Intake Capacity	No. of Students Admitted	No. of Students awarded
5.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	Ph.D.	Vegetable Science	02	02	-
			Fruit Science	02	02	-
Sub Total				04	04	-
6.	College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram	Ph.D.	i) Animal Nutrition	02	-	-
			ii) Livestock Production Management	02	-	-
			iii) Veterinary Biochemistry	01	01	-
			iv) Veterinary Microbiology	02	-	-
			v) Veterinary Pathology	01	-	-
			vi) Veterinary Medicine	02	01	-
			vii) Veterinary Gynaecology & Obstetrics	01	01	-
Sub Total				11	03	-
Grand Total				52	40	08

2.1.3 Students Strength in 2016-17

Table 2.1.3: Students Strength in 2016-17

A. Under Graduate Programmes

Sl. No.	Name of College	Degree Programme	Year wise students strength					Total	No. of Students Graduated in 2016-17
			1 st	2 nd	3 rd	4 th	5 th		
1.	College of Agriculture, Imphal, Manipur	B.Sc. (Hons.) Agriculture	82	53	69	63	-	267	49
2.	College of Agriculture, Kyrdem Kulai, Ri-Bhoi, Meghalaya	B.Sc. (Hons.) Agriculture	17	16	-	-	-	33	-
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	B.Tech. (Agril. Engg.)	44	27	24	26	-	121	29
		B.Tech. (Food Tech.)	09	11	06	09	-	35	07
4.	College of Horticulture, Bermiok, Sikkim	B.Sc. (Hons.) Horticulture	17	14	-	-	-	31	-
5.	College of Fisheries, Lembucherra, Tripura	B.F.Sc.	29	25	22	23	-	99	24
6.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	B.Sc (Hons.) Horticulture	49	35	43	32	-	159	37
		B.Sc (Hons.) Forestry	22	16	18	20	-	76	14
7.	College of Agriculture, Pasighat, Arunachal Pradesh	B.Sc (Hons.) Agriculture	19	19	18	18	-	74	-



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Sl. No.	Name of College	Degree Programme	Year wise students strength					Total	No. of Students Graduated in 2016-17
			1 st	2 nd	3 rd	4 th	5 th		
8.	College of Veterinary Sciences and Animal Husbandry, Central Agricultural University, Selesih, Aizawl, Mizoram	Bachelor of Veterinary Sciences and Animal Husbandry	64	49	60	41	43	257	48
9.	College of Home Science, Tura, Meghalaya	B.Sc. (Hons.) Community Science	21	28	17	21	-	87	14
		B.Sc. (Hons.) Food Nutrition & Dietetics	14	10	12	-	-	36	-
10.	College of Horticulture, Thenzawl, Mizoram	B.Sc. (Hons.) Horticulture	17	-	-	-	-	17	-
11.	College of Food Technology, Lamphelpat, Manipur	B. Tech (Food Tech)	15	08	-	-	-	23	-
12.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	B.V.Sc.&A.H	27	-	-	-	-	27	-
Grand Total			446	311	289	253	43	1342	222

B) Master's programmes

Sl. No.	Name of College	Degree Programme	Departments/Disciplines	Intake Capacity	Students Strength (M.Sc./M.V.Sc./M.F.Sc./M.Tech.)			No. of Students awarded in 2016-17
					Prev.	Final	Total	
1.	College of Agriculture, Imphal, Manipur	M. Sc. (Agriculture)	a) Agronomy	07	07	06	13	04
			b) Agricultural Economics	04	04	03	07	03
			c) Extension Education	07	07	04	11	03
			d) Entomology	07	07	05	12	03
			e) Horticulture	07	07	06	13	03
			f) Plant Pathology	05	05	06	11	05
			g) Genetics & Plant Breeding	07	07	05	12	05
			h) Soil Science & Agricultural Chemistry	07	07	04	11	04
Sub Total				51	51	39	90	30

ACADEMICS AND STUDENTS WELFARE

Sl. No.	Name of College	Degree Programme	Departments/Disciplines	Intake Capacity	Students Strength (M.Sc./M.V.Sc./M.F.Sc./ M.Tech.)			No. of Students awarded in 2016-17
					Prev.	Final	Total	
2.	College of Post-Graduate Studies, Umiam, Meghalaya	M.Sc. (Agri)	1. School of Natural Resource Management					
			a) Agronomy	07	06	07	13	05
			b) Soil Science & Agricultural Chemistry	07	07	04	11	05
			2. School of Crop Improvement					
			a) Genetics & Plant Breeding	07	07	06	13	04
			b) Plant Molecular Biology & Biotechnology	07	06	06	12	03
			3. School of Crop Protection					
			a) Entomology	07	07	06	13	05
			b) Plant Pathology	07	07	06	13	04
			4. School of Social Sciences					
			a) Agricultural Economics	07	07	04	11	04
			b) Agricultural Extension	07	07	06	13	04
			Sub Total	56	54	45	99	34
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	M. Tech.	a) Farm Machinery & Power Engineering	05	01	-	01	-
			c) Soil & Water Engineering	05	01	03	04	-
			d) Food Engineering	03	02	02	04	-
			Sub Total	13	04	05	09	-
4.	College of Fisheries, Lembucherra, Tripura	Master of Fisheries Science (M.F.Sc.)	a) Aquatic Animal Health	05	05	04	09	04
			b) Fish Processing Technology	03	03	04	07	04
			c) Aquaculture	05	05	05	10	05
			d) Fisheries Extension	05	05	01	06	01
			e) Fisheries Resource Management	05	05	04	09	04
			f) Fish Genetics & Breeding	05	05	04	09	04
			Sub Total	28	28	22	50	22
5.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	M.Sc. (Horticulture)	a) M.Sc.(Horticulture)	10	10	07	17	09
		M.Sc. (Forestry)	b) M.Sc.(Forestry)	03	03	01	04	-
		Sub Total	13	13	08	21	09	



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Sl. No.	Name of College	Degree Programme	Departments/Disciplines	Intake Capacity	Students Strength (M.Sc./M.V.Sc./M.F.Sc./ M.Tech.)			No. of Students awarded in 2016-17
					Prev.	Final	Total	
6.	College of Veterinary Sciences & A.H., Selesih, Mizoram	Master of Veterinary Sciences	a) Animal Genetics & Breeding	04	03	03	06	-
			b) Animal Nutrition	04	02	02	04	-
			c) Veterinary Gynaecology & Obstetrics	04	04	03	07	01
			d) Veterinary & Animal Husbandry & Extension	03	01	02	03	03
			e) Veterinary Anatomy & Histology	03	02	01	03	01
			f) Livestock Production Management	04	02	03	05	-
			g) Livestock Products Technology	04	03	03	06	-
			h) Veterinary Medicine	04	04	03	07	01
			i) Veterinary Microbiology	04	03	03	06	01
			j) Veterinary Parasitology	02	01	01	02	-
			k) Veterinary Pathology	04	03	02	05	01
			l) Veterinary Public Health	04	01	03	04	01
			m) Veterinary Surgery & Radiology	04	02	04	06	02
			n) Veterinary Physiology	03	-	-	-	01
			o) Veterinary Biochemistry	04	-	-	-	-
		Sub Total	55	31	33	64	12	
7.	College of Home Science, Tura, Meghalaya	M.Sc. (Community Science)	Food & Nutrition	02	01	-	01	-
			Sub Total	02	01	-	01	-
Grand Total				218	182	152	334	107

ACADEMICS AND STUDENTS WELFARE

C) Ph.D. Programmes

Sl. No	Name of College	Departments/ Disciplines	Intake Capacity	Students Strength (Ph. D.)				No. of Students awarded in 2016-17
				1 st year	2 nd year	3 rd year	Total	
1.	College of Agriculture, Imphal, Manipur	i) Agronomy	03	03	02	-	05	-
		ii) Plant Pathology	02	02	02	-	04	-
		iii) Plant Breeding and Genetics	03	03	02	-	05	-
		iv) Soil Science & Agricultural Chemistry	03	03	01	02	06	-
		Sub Total	11	11	07	02	20	-
2.	College of Post-Graduate Studies, Umiam, Meghalaya	1. School of Natural Resource Management						
		i) Agronomy	03	03	02	-	05	02
		ii) Soil Science & Agricultural Chemistry	03	01	04	02	07	-
		2. School of Crop Improvement						
		i) Genetics & Plant Breeding	03	03	02	01	06	-
		ii) Plant Molecular Biology & Biotechnology	03	03	01	-	04	01
		3. School of Crop Protection						
		i) Pl. Pathology	03	03	02	02	07	-
		4. School of Social Sciences						
		i) Agricultural Economics	03	03	02	01	06	03
ii) Agricultural Extension	03	03	03	02	08	02		
	Sub Total	21	19	16	08	43	08	
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	Farm Machinery & Power Engineering	02	01	-	-	01	-
		Sub Total	02	01	-	-	01	-
4.	College of Fisheries, Lembucherra, Tripura	Ph.D. in Aquatic Animal Health (AAH)	03	02	-	-	02	-
		Sub Total	03	02	-	-	02	-
5.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	Ph.D (Horticulture)	04	04	03	01	08	-
		Sub Total	04	04	03	01	08	-



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SI. No	Name of College	Departments/ Disciplines	Intake Capacity	Students Strength (Ph. D.)				No. of Students awarded in 2016-17
				1 st year	2 nd year	3 rd year	Total	
6	College of Veterinary Sciences & Animal Husbandry	Animal Nutrition	02	-	01	-	01	-
		Livestock Production Management	02	-	-	-	-	-
		Veterinary Biochemistry	01	01	-	-	01	-
		Veterinary Microbiology	02	-	-	01	01	-
		Veterinary Pathology	01	-	-	-	-	-
		Veterinary Medicine	02	01	-	-	01	-
		Veterinary Gynaecology & Obstetrics	01	01	01	-	02	-
Sub Total	11	03	02	01	06	-		
Grand Total	52	40	28	12	80	08		

2.1.4 Category-wise Students' Strength

The details of category wise break-up of students' strength in various UG, PG & Ph.D. programmes of the university are given in Table 2.1.4.

Table 2.1.4: Category wise student strength during 2016-17

SI. No.	Name of College	Degree programme	Students Strength				
			Gen.	SC	ST	OBC	Total
1.	College of Agriculture, Imphal, Manipur	B. Sc. (Hons.) Agriculture	62	11	139	55	267
		M. Sc. (Agriculture)	18	07	32	33	90
		Ph.D. (Agriculture)	06	02	03	09	20
		Sub Total	86	20	174	97	377
2.	College of Post Graduate Studies, Umiam, Meghalaya	M.Sc. (Agriculture)	15	17	39	28	99
		Ph.D	07	09	04	23	43
		Sub Total	22	26	43	51	142
3.	College of Agriculture, Kyrdem Kulai, Ri-Bhoi, Meghalaya	B.Sc. (Agriculture)	03	02	19	09	33
		Sub Total	03	02	19	09	33
4.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	B. Tech. (Agricultural Engineering)	25	09	54	33	121
		B. Tech. (Food Technology)	07	03	14	11	35
		M. Tech (FMPE/SWE/FE)	01	-	02	06	09
		Ph.D	-	-	-	01	01
		Sub Total	33	12	70	51	166

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Sl. No.	Name of College	Degree programme	Students Strength				
			Gen.	SC	ST	OBC	Total
5.	College of Horticulture, Bermiok, Sikkim	B. Sc. (Hons.) Horticulture	02	01	13	15	31
		Sub Total	02	01	13	15	31
6.	College of Fisheries, Lembucherra, Tripura	B.F.Sc.	21	06	47	25	99
		M.F.Sc.	13	04	11	22	50
		Ph.D	01	-	-	01	02
		Sub Total	35	10	58	48	151
7.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Horticulture	09	07	107	36	159
		B.Sc (Hons.) Forestry	06	05	47	18	76
		M.Sc. (Horticulture/Forestry)	02	02	12	05	21
		Ph.D	01	-	05	02	08
		Sub Total	18	14	171	61	264
8.	College of Agriculture, Pasighat, Arunachal Pradesh	B.Sc (Hons.) Agriculture	05	07	52	10	74
		Sub Total	05	07	52	10	74
9.	College of Veterinary Sciences & Animal Husbandry, Selesih, Mizoram	BVSc. & A.H.	36	08	168	45	257
		MVSc.	15	03	39	07	64
		Ph.D	02	-	03	01	06
		Sub Total	53	11	210	53	327
10.	College of Home Science, Tura, Meghalaya	B.Sc. (Hons.) Community Science.	13	08	49	17	87
		B.Sc. (Hons.)Food Nutrition & Dietetics	05	0	22	09	36
		M.Sc. Community Science (Food & Nutrition)	0	0	01	0	01
		Sub Total	18	08	72	26	124
11.	College of Horticulture, Thenzawl, Mizoram	B.Sc. (Hons.) Horticulture	01	02	09	05	17
		Sub Total	01	02	09	05	17
12.	College of Food Technology, Lamphelpat, Imphal	B. Tech (Food Tech)	03	03	08	09	23
		Sub Total	03	03	08	09	23
13.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	B.V.Sc. & A.H	03	02	18	04	27
		Sub Total	03	02	18	04	27
		GRAND TOTAL	282	118	917	439	1756



2.1.5 Male to Female students' ratio

During the academic year, 2016-17, 1756 students including 796 (45.30%) male and 961 (54.70%) female, respectively, were enrolled in different degree programmes at constituent colleges. There was a marginal increase in the number of female students during the year and male: female student ratio was 0.83:1. The college wise break-up of male and female students enrolled in various courses is given in Table 2.1.5.

Table 2.1.5: Enrolled Male and Female students and their ratio during the academic session 2016-17

Sl. No.	Name of College	Degree Programme	Total students	Male students		Female Students		M : F
				No.	%	No.	%	
1.	College of Agriculture, Imphal, Manipur	B.Sc. (Agriculture)	267	127	47.57	140	52.43	0.91:1
		M. Sc. (Agriculture)	90	44	48.89	46	51.11	0.96:1
		Ph.D. (Agriculture)	20	09	45.00	11	55.00	0.82:1
		Sub Total	377	180	47.75	197	52.25	0.92:1
2.	College of Post Graduate Studies, Umiam, Meghalaya	M.Sc. (Agriculture)	99	60	60.61	39	39.39	1.54:1
		Ph.D (Agriculture)	43	19	44.19	24	55.81	0.79:1
		Sub Total	142	79	55.63	63	44.37	1.25:1
3.	College of Agriculture, Kyrdem Kulai, Ri-Bhoi, Meghalaya	B.Sc. (Hons.) Agriculture	33	12	36.37	21	63.63	0.57
		Sub Total	33	12	36.37	21	63.63	0.57:1
4.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	B. Tech. (Agricultural Engineering)	121	73	60.33	48	39.67	1.53:1
		B. Tech. (Food Technology)	35	23	65.71	12	34.29	1.92:1
		M. Tech. (FMPE/SWE/FE)	09	07	77.8	02	22.22	3.5:1
		Ph. D (FMPE)	01	01	100	-	-	1:0
		Sub Total	166	104	62.65	62	37.35	1.67:1
5.	College of Horticulture, Bermiok, Sikkim	B. Sc. (Hons.) Horticulture	31	09	29.03	22	70.96	0.41:1
		Sub Total	31	09	29.03	22	70.96	0.41:1
6.	College of Fisheries, Lembucherra, Tripura	B.F.Sc.	99	49	49.49	50	51.50	0.98:1
		M.F.Sc.	50	33	66.00	17	34.00	1.94:1
		Ph.D.	02	01	50	01	50	1:1
		Sub Total	151	83	54.97	68	45.03	1.22:1

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Sl. No.	Name of College	Degree Programme	Total students	Male students		Female Students		M : F
				No.	%	No.	%	
7.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Horticulture	159	55	34.6	104	65.4	0.53:1
		B.Sc. (Hons.) Forestry	76	35	46.0	41	54.0	0.85:1
		M.Sc (Horticulture/Forestry)	21	10	47.62	11	52.38	0.91:1
		Ph.D.	08	03	37.5	05	62.5	0.6:1
		Sub Total	264	103	39.02	161	60.98	0.64:1
8.	College of Agriculture, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Agriculture	74	29	39.2	45	60.8	0.64:1
		Sub Total	74	29	39.2	45	60.8	0.64:1
9.	College of Veterinary Sciences & Animal Husbandry, Mizoram	BVSc. & A.H.	257	126	49.03	131	50.97	0.96:1
		MVSc.	65	36	55.38	29	44.61	1.24:1
		Ph.D	06	04	66.00	02	34.00	2:1
		Sub Total	328	166	50.61	162	49.39	1.02:1
10.	College of Home Science, Tura, Meghalaya	B.Sc. (Hons.) Community Science/ Home Science	87	-	-	87	100	0:87
		B.Sc. (Hons.) Food Nutrition & Dietetics/ Nutrition & Dietetics	36	-	-	36	100	0:36
		M.Sc. Community Science (Food & Nutrition)	01	-	-	01	100	0:1
		Sub Total	124	-	-	124	100	0:124
11.	College of Horticulture, Thenzawl, Mizoram	B.Sc. (Hons.) Horticulture	17	11	64.7	06	35.3	1.8:1
		Sub Total	17	11	64.7	06	35.3	1.8:1
12.	College of Food Technology, Lamphelpat, Manipur	B. Tech (Food Technology)	23	13	56.5	10	43.5	1.3:1
		Sub Total	23	13	56.5	10	43.5	1.3:1
13.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	B.V.Sc. & A.H	27	07	26	20	74	0.35:1
		Sub Total	27	07	26	20	74	0.35:1
		Grand Total	1756	796	45.30	960	54.70	0.83:1



2.1.6 Rank Holders of U.G. and P.G. Programmes, 2016-17

Table 2.1.6(a): First Rank Holders under UG Programmes in different Colleges during the year 2016-17

Sl. No	Name of Colleges	Degree Offered	Names of Students	OGPA
1.	College of Agriculture, Imphal, Manipur	B.Sc. (Agriculture)	Ms. T. Malemnganbi	8.77
2.	College Of Agricultural Engineering & Post Harvest Technology, Gangtok, Sikkim	B. Tech. (Food Technology) B. Tech. (Agricultural Engineering)	Mr. Laldanmawia Mr. Pintu Kumar Gupta	8.34 8.95
3.	College of Fisheries, Tripura	B.F.Sc. M.F.Sc.	Ms. Yumnam Joshi Devi Mr. Siddhnath	8.89 9.00
4.	College of Horticulture & Forestry, Pasighat	B.Sc (Horticulture) B.Sc. (Forestry)	Ms. Damyanti Prajapati Mr. Sunil Ningombam	8.92 8.67
5.	College of Veterinary Sciences & Animal Husbandry, Selisih, Mizoram	B.V.Sc. & A.H.	Mr. Sidhant Pradhan	8.48
6.	College of Home Science, Tura	B.Sc. (Home Science)	Ms. S. Kholthianpui	8.88

Table 2.1.6(b): Subject wise first rank holders in Master's Programmes during the year, 2016-17

Sl. No.	Name of College	Subject	Names of Students	OGPA
1.	College of Agriculture, Imphal, Manipur	Agronomy	Mr. Kh. Sundeep Singh	8.86
		Agricultural Economics	Mr. Badondor Khongshei	7.85
		Entomology	Mr. M. Vignesh	8.20
		Extension Education	Ms. Deepa Thangjam	8.55
		Horticulture	Ms. Devika Thangjam	8.90
		Plant Breeding & Genetics	Ms. T. Julia	8.79
		Plant Pathology	Ms. N. Olivia	8.38
2.	College of Post-Graduate Studies, Umiam, Meghalaya	Soil Science	Ms. Kh. Manorama	8.58
		Agronomy	Mr. Joy Kumar Dey	8.55
		Soil Science & Agricultural Chemistry	Ms. Labuhty Giri Mawlong	8.76
		Genetics and Plant Breeding	Ms. Backiyalakshmi C.	8.28
		Plant Molecular Biology and Biotechnology	Mr. Limasunep Longkumer	7.48
		Entomology	Ms. K. Lalruatsangi	8.50
		Plant Pathology	Ms. Rimikini Laloo	8.82
Agricultural Economics	Ms. Singyala Chiphang	8.34		
Agricultural Extension	Mr. Pankaj Kumar Meghwal	8.65		

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Sl. No.	Name of College	Subject	Names of Students	OGPA
3.	College of Fisheries, Lembucherra, Tripura	Aquatic Animal Health	Ms. Mukta Singh	8.93
		Aquaculture	Mr. Satyajit Das	8.73
		Fish Processing Technology	Mr. Shubam Gupta	8.53
		Fisheries Extension	Ms. Bonani Laskar	8.49
		Fish Genetics & Breeding	Mr. Biswaranjan Rath	8.79
		Fisheries Resource Management	Mr. Khanindra Bhuyan	8.34
4.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh.	M.Sc. (Horticulture)	Ms. Esther Lalruatsangi	8.75
5.	College of Veterinary Sciences & Animal Husbandry, Selisih, Mizoram	M.V. Sc.	Miss VanglaIngilneii Ralte	8.45

Table 2.1.6(c): Students awarded Ph.D degree in different colleges during the year, 2016-17

Sl. No.	Name of College	Subject	Names of Students	OGPA
1.	College of Post-Graduate Studies, Umiam, Meghalaya	Agronomy	Mr. Sanjenbam Dayananda Singh	8.17
			Ms. Yanglem Sofia Devi	7.96
		Plant Molecular Biology and Biotechnology	Mr. Sudip Das	7.63
			Agricultural Economics	Mr. Pallab Debnath
			Ms. Dayohimi Rymbai	8.40
			Mr. Leishangthem Geetarani Devi	7.14
		Agricultural Extension	Ms. Suchiradipta Bhattacharjee	8.64
			Ms. Khumukcham Stina	8.25

2.1.7 Scholarship awarded to students during 2016-17

The college-wise number of students who received various scholarship during the year, 2016-17 is given in Table 2.1.7:

Table 2.1.7: Scholarship awarded to students, 2016-17 (NTS/University Merit Scholarship/Others)

Sl. No.	Name of the College	Degree programme	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/ Univ. Institutional Fellowship	Other Scholarships
1.	College of Agriculture, Imphal, Manipur	B.Sc. (Hons.) Agriculture	1 st yr	04	01 (Merit scholarship)	-
			2 nd yr	01	01 (Merit scholarship)	-
			3 rd yr	01	01 (Merit scholarship)	-
			4 th yr	03	01 (Merit scholarship)	-



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Sl. No.	Name of the College	Degree programme	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/ Univ. Institutional Fellowship	Other Scholarships	
2.	College of Post-Graduate Studies, Umiam, Meghalaya	M. Sc. (Agriculture)	1 st yr	11	32 (UIF)	-	
			2 nd yr	-	37 (UIF)	-	
		Ph. D.	1 st yr	-	10 (UIF)	-	
			2 nd yr	-	06 (UIF)	-	
			3 rd yr	-	02 (UIF)	-	
		M.Sc. (Agriculture)	1 st yr	14	39	-	
			2 nd yr	-	42	01 ICAR JRF	
			Ph.D	1 st yr	-	13	-
				2 nd yr	-	04	08 (UGC Scholarship)
			3 rd yr	-	03	01 (ICAR SRF)	
4 th yr	-	-	01 (Jawaharlal Nehru Scholarships for Doctoral Studies)				
3.	College of Agriculture, Kyrdem Kulai, Ri-Bhoi, Meghalaya	B.Sc. (Hons.) Agriculture	1 st yr	-	-	-	
			2 nd yr	01	-	-	
4.	College of Agricultural Engineering and Post Harvest Technology, Gangtok	B. Tech. (Agril. Engg.)	1 st yr	06	-	-	
			2 nd yr	04	-	-	
			3 rd yr	04	-	-	
			4 th yr	01	01	-	
		B. Tech. (Food Tech.)	1 st yr	--	01	-	
			2 nd yr	02	-	-	
			3 rd yr	01	-	-	
			4 th yr	--	01	-	
		M. Tech (SWE)	1 st yr	--	01	-	
			2 nd yr	--	03	-	
		M. Tech. (FMPE)	1 st yr	-	-	-	
			2 nd yr	-	01	-	
		M. Tech. (FE)	1 st yr	-	02	-	
2 nd yr	-		01	-			
Ph. D (FMPE)	1 st yr	-	01	-			
5.	College of Horticulture, Bermiok, Sikkim	B. Sc.(Hons.) Horticulture	1 st yr	02	01	-	
			2 nd yr		02	-	

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Sl. No.	Name of the College	Degree programme	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/ Univ. Institutional Fellowship	Other Scholarships
6.	College of Fisheries, Tripura	B.F.Sc.	1 st yr	-	01	-
			2 nd yr	-	01	-
			3 rd yr	-	01	-
			4 th yr	-	01	-
		M.F.Sc.	1 st yr	06	18	-
			2 nd yr	04	22	1 (ICAR-JRF)
7.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Horticulture	1 st yr	02	01	-
			2 nd yr	02	01	-
			3 rd yr	01	01	-
			4 th yr	02	01	-
		B.Sc. (Hons.) Forestry	1 st yr	02	01	-
			2 nd yr	01	01	-
			3 rd yr	-	01	-
			4 th yr	-	01	-
8.	College of Agriculture, Pasighat, Arunachal Pradesh	B.Sc. (Hons.) Agriculture	1 st yr	-	01	-
			2 nd yr	02	01	-
			3 rd yr	-	01	-
			4 th yr	-	01	-
9.	College of Veterinary Sciences & Animal Husbandry, Selisih, Mizoram	BVSc. & A.H.	1 st yr	01	01	-
			2 nd yr	01	01	-
			3 rd yr	-	01	-
			4 th yr	02	01	-
			5 th yr	03	01	-
		MVSc.	1 st yr.	06	19	-
			2 nd yr.	05	19	-
			Ph.D	1 st yr	-	03
2 nd yr	-	02		-		
3 rd yr	-	01		-		
10.	College of Home Science, Tura, Meghalaya	B.Sc. (Hons.) Community Science	1 st yr	-	01	UGC-11, ST-5, National Portal-01
			2 nd yr	-	01	UGC-02, ST-10
			3 rd yr	-	01	UGC-02, ST-04
			4 th yr	-	01	NEC-01, ST-09, National Portal-01



CENTRAL AGRICULTURAL UNIVERSITY ANNUAL REPORT 2016-17

Sl. No.	Name of the College	Degree programme	Year	No. of Students receiving NTS	No. of Students receiving Univ. Merit Scholarship/ Univ. Institutional Fellowship	Other Scholarships
		B.Sc. (Hons.)	1 st yr	-	01	UGC-06, ST-06
		Food Nutrition & Dietetics	2 nd yr	-	01	ST-05,
			3 rd yr	-	01	UGC-02, ST-02, Minority-01
		M.Sc. Community Science	1 st yr	-	01	-
11.	College of Horticulture, Thenzawl, Mizoram	B.Sc. (Hons.) Horticulture	1 st yr	01	-	02 (UGC-IssannUday), 05 (ST/ SC Scholarship)
12.	College of Food Technology, Lamphelpat, Manipur	B.Tech. (Food Technology)	1 st yr	04	01 (Merit scholarship)	-
13.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	B.V.Sc. & A.H	1 st yr	-	01	-

Table 2.1.8: National level examinations qualified during the year 2016-17

Sl. No.	Name of College	Name of Exam	No. of students qualified
1.	College of Agriculture, Imphal, Manipur	JRF	Qualified: 38 Secured: 05
		SRF	Qualified: 05 Secured: Nil
2.	College of Post Graduate Studies, Umiam, Meghalaya	ASRB-NET	20
		UGC -NET	02
		JRF	Qualified: 07 Secured: Nil
3.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	GATE	05
		CAT	04
		JRF	Qualified: 10 Secured: 04
4.	College of Fisheries, Tripura	NET	04

ACADEMICS AND STUDENTS WELFARE

Sl. No.	Name of College	Name of Exam	No. of students qualified
5.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	JRF	Qualified: 05 Secured: 05
6.	College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram	JRF	Qualified: 31 Secured: 06
7.	College of Home Science, Tura, Meghalaya	JRF	Qualified: 08 Secured : Nil

Table 2.1.9: Placement of passed out students in different positions/organizations during 2016-17

Sl. No.	Name of College	Name of student	Year of passing from college	Positions/Organizations joined
1.	College of Post-Graduate Studies, Umiam, Meghalaya	Mr. Ningombam Anandkumar Singh Ph.D. Agriculture Economics	2016-17	Teaching Associate, College of Horticulture and Forestry, Pasighat
		Ms. Binalata Kangjam Ph.D. Plant Pathology	2016-17	Assistant Plant Protection Officer, Directorate of Plant Protection Quarantine and Storage, Faridabad, Ministry of Agriculture and Farmer's Welfare
		Ms. Jina Kongbrailatpam Ph.D. Plant Pathology	2016-17	Assistant Plant Protection Officer, Directorate of Plant Protection Quarantine and Storage, Faridabad, Ministry of Agriculture and Farmer's Welfare
		Mr. Sapam Rajesh Kumar Singh Ph.D. Genetics and plant Breeding	2016-17	Teaching Associate Mizoram
2.	College of Fisheries, Tripura	Mr. Biswajyoti Bordoloi	2014	Scientist, Assam Agricultural University, Assam
		Mr. Khanindra Bhuyan	2016	Fishery Extension Officer/ Fishery Dept., Assam
		Ms. Silpika Gogoi	2016	Fishery Extension Officer/ Fishery Dept., Assam
		Mr. Rasidamad Bogi	2016	Fishery Inspector, Fishery Dept., Manipur
		Mr. Maringmei Makuchung	2016	Fishery Inspector, Fishery Dept., Manipur
		Ms. C. Mate	2015	Farm Manager, Fishery Dept., Manipur



Sl. No.	Name of College	Name of student	Year of passing from college	Positions/Organizations joined
		Ms. Anisha Kar	2016	Fishery Officer, Fishery Dept., Tripura
		Mr. Tarikul Islam	2016	Fishery Officer, Fishery Dept., Tripura
		Mr. Satyajit Das	2016	Fishery Officer, Fishery Dept., West Bengal
3.	College of Home Science, Tura, Meghalaya	Tanushree Saha	2013 (Appointed in 2016)	Dietician, Govt. Hospital, Govt. of Tripura
		Dorjee Yodon Thungon	2013 (Appointed in 2016)	SMS/ KVK, Arunachal Pradesh
		Okram Abemsana Devi	2013 (Appointed in 2016)	Dietician/Mission hospital, Durgapur
		Brighty A. Sangma	2014 (Appointed in 2016)	Guest Lecturer /College of Home Sc., CAU, Tura
		Dorjee Dema Khemu	2014 (Appointed in 2016)	SMS/ KVK, Arunachal Pradesh

2.2 Library Services

All the constituent colleges of the university have well equipped libraries which provides its services to scholars, teachers and staff of the college. Library has e-resources including KOHA Online Library, IP-based academic e-journals, e-books and other e-literature, etc. The Library provides circulation and reference services. All the in-house operations of the Library are fully computerized using the networked version of the software LibSys – 4 with OPAC facilities. The Library also has access to CeRA and India Agri Stat Consortium. Photocopying facility is also available in the Library. The detail of books, theses, journals, magazines and other reading material alongwith its expenditure is furnished as under.



2.2.1 College of Agriculture, Imphal, Manipur

Sl. No	Library Collections	No.	Expenditure (₹)
i.	Books (Total holdings)	21301	NA
ii.	Theses (Reference Section)	1043	NA
iii.	Journals		NA
	a. Indian Journals	40	
	b. International Journals	21	
	c. Total Bound Volume Journals	1190	
iv.	Popular Magazines	No new edition	NA
v.	Newspapers		NA
	a. National Newspapers	No new edition	
	b. Local Newspapers	No new edition	
vi.	Miscellaneous		NA
	a. Books/Journals sent for binding during 2016-17 (83 bound volumes)	Nil	

No. of Academic Books purchased during 2016-17

Sl. No.	No. of Titles	No. of Copies	Expenditure (₹)
1.	306	893	14.28

2.2.2. College of Post Graduate Studies, Umiam, Meghalaya

Sl. No	Library Collections	Nos.	Expenditure (₹)
i.	Books (Total holdings)	5151	5000.00
ii.	Thesis (Reference Section)	221-Msc, 12-PhD	-
iii.	Journals		
	a. Indian Journals	52	41960.00
	b. International Journals	03	2,70,896.00
	Total Bound Volume Journals	Nil	-
iv.	Popular Magazines	06	7680.00
v.	Newspapers		
	a. National Newspapers	05	15570.00
	b. Local Newspapers	02	
	Total amount spent on newspapers & magazines		23,250.00
vi.	Miscellaneous	01 statistical database (annual subscription)	86,250.00
	a. Books/Journals sent for binding during 2016-17	-	-

No. of Academic Books purchased during 2016-17

Sl. No.	No. of Titles	No. of Copies	Expenditure (₹)
1.	Hundred years of agriculture sciences in India	01	5000.00



2.2.3. College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram

Sl.	Library Collections	Nos	Expenditure (₹)
i.	Books (Total holdings)	10162	493581.00
ii.	Thesis (Reference Section)	91	-
iii.	Journals		
a.	Indian Journals (subscribed during 2016-17)	19	48,625.00
b.	International Journals(subscribed during 2016-17)	nil	-
c.	Total Bound Volume Journals	nil	-
iv.	Popular Magazines (subscribed during 2016-17)	04	10300.00
v.	Newspapers (subscribed during 2016-17)		
a.	National Newspapers	04	36638.00
b.	Local Newspapers	03	5280.00
	<i>Total exp. Spent on newspapers & magazines</i>		52218.00
vi.	Misc.		
a.	Books / Journals sent for binding during 2016-17	-	-
b.	No. of CD/DVD purchase during 2016-2017	05	10,000.00
c.	Books Purchased under Imprest Money 1 copy in Library (Acc. No. 10034) 4 copies in Hostel Library (Acc. No. 302-305)	05	650.00

No. of Academic Books purchased during 2016-17

Sl. No.	No. of Titles	No. of copies	Expenditure (₹)
1.	38	128	4,93,581.00

Facilities (existing, Developed and Upgraded) during 2016-17

Sl.	Facilities Available	Qty
a.	No. of Computers (Office)	03
b.	Xerox machine	01
c.	Printer	01
d.	E-resources	DelCon
e.	Internet	Yes

2.2.4. College of Agricultural Engineering and Post Harvest Technology, Gangtok , Sikkim

Sl. No.	Library Collections	Nos.	Expenditure (₹)
i.	Books (Total holdings)	7203	81,92,467
ii.	Thesis (Reference Section)	184	-
iii.	Journals		
a.	Indian Journals (Subscribed during 2016-17)	-	-

ACADEMICS AND STUDENTS WELFARE

SI. No.	Library Collections	Nos.	Expenditure (₹)
b.	International Journals (Subscribed during 2016-17)	-	-
c.	Total Bound Volume Journals	-	-
iv.	Popular Magazines (Subscribed during 2016-17)	05	11585
v.	Newspapers (Subscribed during 2016-17)	05	9435
a.	National Newspapers	03	5,779.5
b.	Local Newspapers	02	3,665
	Total amount Spent on newspapers & magazines		9,435
vi.	Miscellaneous		
a.	Books / Journals sent for binding during 2016-17	-	-

No. of Academic Books purchased during 2016-17

SI. No.	Titles	No. of Copies	Expenditure (₹)
1.	41	83	227074.5.00

2.2.5. College of Home Science, Tura, Meghalaya

SI. No.	Library collection	Nos.	Expenditure (₹)
i.	Books (Total holdings)	6650	10,000
ii.	Thesis (Reference section)	Nil	Nil
iii.	Journals		
a.	Indian Journals (print)	17	43,720
b.	International Journals (print)	01	5,000
c.	Total bound volume journals	Nil	Nil
iv.	Popular Magazines	10	538
v.	Newspapers		
a.	National newspapers	02	427
b.	Local newspaper	01	120
	Total amount spent on newspapers and magazines		1085
vi.	Miscellaneous		
a.	Books / Journals sent for binding	Nil	Nil

No. of Academic Books purchased during 2016-17

SI.No	Titles	No. of Copies	Expenditure (₹)
1.	08	47	11,515.00



2.2.6. College of Horticulture, Bermiok, Sikkim

Sl.	Library Collections	Nos.	Expenditure (₹)
i.	Books (Total holdings)	248	3,33,361
ii.	Thesis (Reference Section)	Nil	Nil
iii.	Journals		
a.	Indian Journals (Subscribed during 2016-17)	Nil	Nil
b.	International Journals (Subscribed during 2016-17)	Nil	Nil
c.	Total Bound Volume Journals	Nil	Nil
iv.	Popular Magazines (Subscribed during 2016-17)	Nil	Nil
v.	Newspapers (Subscribed during 2016-17)	Nil	Nil
a.	National Newspapers	Nil	Nil
b.	Local Newspapers	Nil	Nil
	Total amount Spent on newspapers & magazines		
vi.	Miscellaneous		
a.	Books / Journals sent for binding during 2016-17	Nil	Nil

No. of Academic Books purchased during 2016-17

Sl.No	Titles	No. of Copies	Expenditure (₹)
1.	50	204	3,33,360.00

2.2.7. College of Fisheries, Lembucherra, Tripura

Sl. No	Library Collections	Nos.	Expenditure (₹)
i.	Books (Total holdings)	8465	1,38,94,278.00
ii.	Thesis (Reference Section)	75	-
iii.	Journals		
a.	Indian Journals	51	
b.	International Journals	17	
	Total Bound Volume Journals	68	36,11,973.00
iv.	Popular Magazines	19	2680 per month(approx.)
v.	Newspapers		
a.	National Newspapers	03	990 per month(approx.)
b.	Local Newspapers	02	
	Total amount spent on newspapers & magazines		2,44,868.00
vi.	Miscellaneous		-
a.	Books/Journals sent for binding during 2016-17		-

No. of Academic Books purchased during 2016-17

Sl.No	Titles	No. of Copies	Expenditure (₹)
1.	03	04	41,278.00

ACADEMICS AND STUDENTS WELFARE

2.2.8. College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

Sl. No.	Library collection	Nos.	Expenditure (₹)
i.	Books (Total holdings)	15419	
	College of Horticulture and Forestry - Expenditure YEAR 2016-17	-	(Rs. 29674)
	College of Agriculture Total Holdings of Books Expenditure year 2016-17	977	-
ii.	Thesis (Reference Section) M.Sc. (P.G. theses)	36	-
iii.	Journals		
	a. Indian Journals (2016-17)	25	60650.00
	b. International journals (2016-17)	48	1994560.00
	c. Horticultural Science Abstracts 2013 to 2016		
	- Back Vol. Foreign Journals,	19 Vol.	
	- Acta-Horticulture total No.	134	
	Horticulture Science Abstract - 2006 to 2011 2	72	
	CAB CD Rom Data from 1972 to March 2005	48	
	Total bound Volume Journals	278	
iv.	Popular Magazines	04	
v.	Newspapers		
	a. National Newspapers	03	
	b. Local Newspapers	03	
	Total amount spent on newspapers & magazines		17323.00
vi.	Miscellaneous	N.A.	
	Books/Journals sent for binding during 2016-17	N.A.	

No. of Academic Books purchased during 2016-17

Sl.No	Titles	No. of Copies	Expenditure (₹)
1.	11	24	29,674.00

2.2.9. College of Horticulture, Thenzawl, Mizoram

Sl. No	Library Collections	Nos.	Expenditure (₹)
i.	Books (Total holdings)	108	86322.53
ii.	Thesis (Reference Section)	NIL	
iii.	Journals	NIL	
	a. Indian Journals		
	b. International Journals		
	Total Bound Volume Journals		
iv.	Popular Magazines	NIL	
v.	Newspapers	NIL	



Sl. No	Library Collections	Nos.	Expenditure (₹)
	a. National Newspapers		
	b. Local Newspapers		
	Total amount spent on newspapers & magazines	NIL	
vi	Miscellaneous	NIL	
	c. Books/Journals sent for binding during 2016-17	NIL	

No. of Academic Books purchased during 2016-17

Sl.No	Titles	No. of Copies	Expenditure (₹)
1.	32	96	86,322.53

2.2.10. College of Food Technology, Lamphelpat, Manipur

Sl.No	Titles	Expenditure (₹ in Lakhs)
1.	110	1.35

2.2.11. College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland

Sl. No.	Library collection	Nos.	Expenditure (₹)
i.	Books (Total Holding)	261	242699
ii.	Thesis (Reference Section)	Nil	-
iii.	Journals	Nil	-
iv.	Popular Magazines	Nil	-
v.	Newspapers		-
	a) National	Nil	-
	b) Local Newspapers	2	2200
	Total amount spent on newspaper & magazines		
vi.	Miscellaneous	Nil	
	Total		244899

2.3 Computer Facilities

2.3.1 College of Agriculture, Imphal, Manipur

The college has well established computer laboratory with 26 computers. This laboratory provides statistical computing with statistical packages, internet facility for searching of research materials, etc. These facilities are being used by the students, researchers and faculty members.



2.3.2 College of Post Graduate Studies, Umiam, Meghalaya

The computer laboratory has 20 computers with latest statistical packages like SAS and SPSS. The lab has 20 seating capacity. White board and over head projector have been placed for conducting classes of UG, PG and Ph D relevant to computer requirement. The Local Area Network (LAN) facility in CPGS (CAU) has been designed to centrally distribute Internet, e-resources (including KOHA Online Library, IP-based academic e-journals, e-books and other e-literature, etc.) and other e-facilities from the server room to each computer, within the College campus. The CAU and CPGS Website Servers, Firewalls, Management Servers, etc., make up the IT Server Farm which are linked to the ISP BSNL via a dedicated 10 Mbps Leased Line Circuit and a backup 2 Mbps line. All the computers in various schools, sections and hostels are linked to the server room, via wired and/or wireless connections.

2.3.3 College of Veterinary Sciences & Animal Husbandry, Selisih, Aizawl, Mizoram

The College provides the computing facilities to all teaching staff, administrative staff and Students. There are two Computer Labs in this College. Both are well equipped with internet facilities to all the 27(17+10) PCs. It is extending its service in maintaining the Bio-informatics Centre of the college. It provides services to the host faculty and other neighboring institutions of higher education in terms of Internet connectivity, retrieval of online and offline biological databases, bioinformatics software and tools for facilitating biological research particularly in the area of sequence and phylogenetic analysis, database development, molecular modeling and drug design, etc. It also periodically organizes hands-on trainings on various aspects of application of

bioinformatics tools and molecular techniques in biological research. It is also looking after DeLCON, CERA, e-journal consortium, DBT in the college.

The College supports a wide High Speed fiber optic and Wireless network Bridge that connects administrative Building, all the Departments, library, Hostels, Residential Quarters and other central facilities to the Computer Centre. The College procured 10 Mbps s with uploading speed of 1:1 lease line connection from Bharat Sanchar Nigam Limited (BSNL), Aizawl, Mizoram for internet connectivity. Computer Centre has a power back up through a 10 KVA UPS and a 300 KVA generator set. E-mail login is provided to all faculty and staff members for accessing college Mail service. Computer Center maintains college website (www.cvsccauaizawl.edu.in), DNS server, Intranet website etc. The College website is updated by this Centre time to time.

2.3.4 College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim

The Computer Laboratory is equipped with 20 Computers with the facilities of LAN connection to each and every computer. Latest software's of different courses has been installed as per requirement of the concern subject. It is having a back-up of 10 KVA UPS to provide uninterrupted power supply. From time to time practical training session to students and staffs on new software is being provided.

2.3.5 College of Home Science, Tura, Meghalaya

The college has internet connection (leased line) provided by BSNL with a speed of 2 mbps. The IT Lab has 15 computers for students' practical classes and for their other requirements. The classrooms are well-equipped with a computer and LCD projector each, for teaching



and students' presentation. Besides these, all the departments have computers, printers and scanning facilities.

2.3.6 College of Fisheries, Lembucherra, Tripura

16 MBPS leased line LAN connectivity from BSNL is set up for the entire college. In the computer lab, presently 16 numbers of computers are provided to facilitate the computation/analytical need of the students for their research activities. Statistical Package for Social Sciences (SPSS-22) was recently procured (total 10 number of users) and has been installed in two computers in the lab. The college website www.cofcau.nic.in is used for regular uploading of necessary information/events and the e-mail ID of College is: cofcau.agt_tr@gov.in; cofcau@rediffmail.com.



2.3.7 College of Horticulture & Forestry, Pasighat

The college has well furnished air-conditioned Computer Laboratory which houses 20 numbers of Desktop Computers with Internet facility. The college has 2 Mbps Leased line Internet connection from BSNL. The College provides unlimited Internet facility to the staff and students. Wi-Fi Internet hotspot facility has been provided at Academic building, Old College building, VC Camp, Guest House and

Daisy Girls' Hostel. The college has plan to connect with National Knowledge Network (NKN) which is a Pan India high speed Internet network connecting premier Academic and R&D Institutions.

2.4 Students' Welfare & Extra Curricular Activities

2.4.1 Hostel facilities

The hostels are located inside the college campuses that ensure close proximity and connectivity. The academic programmes of the university are purely residential and co-education except College of Home Science, Tura, Meghalaya where only girl students are admitted. Hostels are well furnished with telephone, TV, computers with free wi-fi facilities, kitchens, indoor games (TT board, carom, chess etc.), gymnasium, newspapers, first aid box & medical facility, inverter and generator systems and other basic facilities. There are separate hostels for boys and girls as well as under graduate, post graduate and doctoral research scholar also. Wardens monitored the hostels 24x7 hour's pattern. Student clubs run their mess in their respective hostels. 24 hours security is provided by security guards in the hostel.

2.4.2 Canteen Facilities

All the constituent colleges are having well organized hygienic canteens located within the



campus. The food prepared is available for the students and staff of the college at the nominal rate. A committee monitors the hygienic and nutritional food prepared in the canteen.

2.4.3 Medical Facilities

Each constituent college has well equipped medical unit for regular health check-up of staff and students. These 24X7 hours medical facilities are available in all campuses with well qualified resident medical officers assisted by compounder cum dresser, trained nurses and attendants. Ambulance services are also provided for the students and staffs for emergencies and effective health care management.



2.4.4 Placement Cell

The University has placement cell in each campus which facilitates placement for the students in different agri allied sectors including banks, private establishments, NGO's, industry etc. Pass out students of the university also qualified for UPSC/ State Civil Services examination and many of them are working in the ICAR State Agricultural Universities, Technical Institutes of Higher Education, Krishi Vigyan Kendra (s), and Research Institutes of High Repute etc. We have students doing Doctoral Degree Research in famous International Research Institutes' as well as in the Universities in India and abroad.

2.4.5 Extra-curricular activities

The university promotes co-curricular activities and encourages students participation in all aspects of campus life. All constituent colleges of the universities have well managed games and sports infrastructures including all season indoor facilities, auditorium and gymnasium. A separate cell for cocurricular activities was opened in the Directorate of Instruction w.e.f. 1st November, 2013 to co-ordinate and improve various Games and Sports & Cultural activities of the University. To inculcate the sense of competitiveness among the students, the constituent colleges organized co-curricular activities in the form of annual college week, sports & games and social/cultural meets. To provide a common platform for the students of constituent colleges located in different states of the region, the University organized annual Inter Collegiate Games & Sports Meet and Youth Festivals on shifting venue basis. The university shines in the All India ICAR Inter Agricultural Universities Games and Sports Meet (s), All India University Tournaments and Championships as well as AIU Youth Festivals and ICAR Youth Festivals etc. All constituent colleges of the university organized Swachh Bharat Abhiyaan programme to create awareness among the CAU community, the sense of sanitation, hygiene and healthy living in tune with clean environment. It also organized International Day of Yoga to inculcate the students, a sense of nationalism through different community services. Further, it also has National Social Service (NSS) activities monitored by NSS cells in all the constituent colleges and organized programmes like blood donation, tree plantation, water harvesting, sanitation, health and hygiene activities, eco-environmental conservation and preservation etc. It organizes animal health camps, field visits, seminar on stress management, communal harmony weeks with poster campaigns and



other community service related activities on regular intervals.

2.4.5.1 Glimpses of Athletics, sports and games, cultural and other student activities

College Week

All the constituent colleges organize the Annual College Week in which the students within the college take part in Games and Sports events (both indoor and outdoor) and in literary and cultural events like fine arts, theatre, music and dance etc. Based on the performance at college level, the students are selected and prepared for participation in the Inter-Collegiate Sports and Games and Inter-Collegiate Youth Festival held annually at the university level.

4th Inter-Collegiate Sports and Games Meet, CAU, Imphal

The Directorate of Instruction, CAU, Imphal,

organized the 4th Inter Collegiate Sports and Games Meet, CAU, Imphal at the College of Fisheries, Lembucherra, Tripura during 16th-19th February, 2017. Altogether 150 plus participants including S.W.O participated in the four days meet.

Participation of CAU, Imphal, team at the 17th All India ICAR AGRIUNIFEST, 2017

The CAU, Imphal participated at the 17th All India ICAR AGRIUNIFEST, 2017, at RAJUVAS, Bikaner, Rajasthan, during 22nd to 25th March 2017. Twenty two students (boys & girls) participated in the festival and won two prestigious prizes in 1st position in Collage, 2nd position in quiz.

Two Days' Documentary Film Festival on Fisheries and Allied Sectors.

The Directorate of Instruction, CAU, Imphal headquarters has initiated a Two Days' Documentary Film Festival on Fisheries and



ACADEMICS AND STUDENTS WELFARE



National Youth Parliament inaugurated by Dr. T. Meinya Singh, Member of Parliament and the 13th National Youth Parliament Competition in session on 30th August, 2016

Allied Sectors in collaboration with Film and Cultural Society, North East & Indian Documentary Producers' Association in the College of Veterinary Sciences and Animal Husbandry, Selesih, Aizawl, Mizoram, during 6th-7th Jan, 2017. Altogether six educational films were screened during the two days programme.

National youth parliament competition

The first group level 13th national youth parliament competition was conducted on 30th August, 2016 at the Assembly hall of College of Agriculture CAU, Imphal. Sixty students from the College of Agriculture participated in the competition out of which, six students were selected for the second round.





3



Research and Development



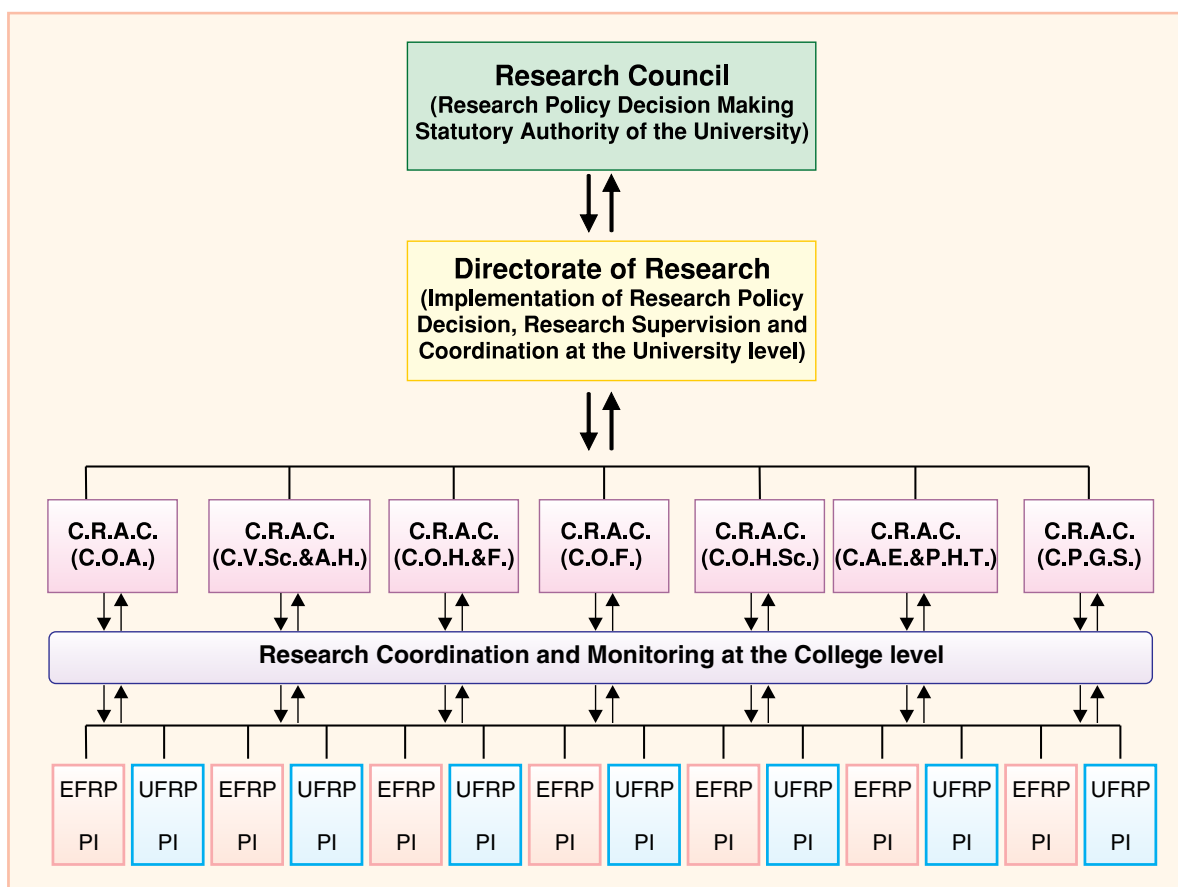
THE Central Agricultural University aims to develop need based research projects through sustainable and eco-friendly scientific and technical approach for developing agricultural technologies/practices/agricultural machines and equipments which can bring about a far reaching impact on productivity and profitability of crops, animals and fishes and developing new products for value addition, enhance income generation and in turn the socio-economic upliftment of the people of North Eastern Hills Region. The research components of the university included basic, strategic, applied and adoptive research in the field of agriculture, horticulture, animal sciences, fisheries, home science, agricultural engineering, food technology, post harvest technology and others. The Central Agricultural University research focussed on the location specific and problem solving approaches through its constituent colleges located in the states of the North Eastern Hills Region through external funded research projects viz. AICRP's, AINP, DBT, TSP and other, IRP's as internally funded projects to faculty in its constituent colleges.

The present research report covers the ongoing and completed research projects in agriculture and allied sciences conducted by our faculty members and scientists in the North-Eastern Hill States under the area jurisdiction of the university during the year, 2016-17. The report includes the research results obtained from colleges viz., College of Agriculture (COA), CAU, Imphal (Manipur), College of Veterinary Sciences & Animal Husbandry (COVSc & AH), Selesih (Mizoram), College of Fisheries (COF), Lembucherra (Tripura), College of Horticulture & Forestry (CHF), Pasighat (Arunachal Pradesh), College of Home Science (COHSc), Tura (Meghalaya), College of Agricultural Engineering & Post Harvest Technology (CAE & PHT), Gangtok (Sikkim), College of Post Graduate Studies (CPGS), Uiam (Meghalaya) and Agricultural Experimental-cum-Demonstration Farm, CAU, Andro, Imphal East (Manipur) where both internal and external funded research projects are being undertaken.

3.1 CAU Research administration and linkages

In order to facilitate research administration and linkages between researchers and research managers in the university, a time tested research management and linkage system has been developed in the university as depicted in the flow diagram as presented in Fig. 1.

The Directorate of Research, CAU, Lamphelpat, Imphal with its mandatory responsibility to supervise, co-ordinate and monitor all the research activities under the University aims at developing technologies which can bring about a far reaching impact on the productivity and profitability of crops, animals and fishes through sustainable and eco-friendly technological and scientific approaches and with mechanization and post harvest activities for the value addition and reduction of human drudgery for socio-economic upliftment of the people of NEH Region. With a view to fulfil the research objectives of the University, a number of need based location and climate, topography and its soil specific internally and externally funded basic, applied and adaptive research projects were undertaken to provide the solution and new short and medium duration varieties resistant to insects, pests, suitable to all climatic conditions and with high yields in all the constituent colleges of the University.



N.B.: CRAC= College Research Advisory Committee, EFRP = Externally Funded Research Project, UFRP = University Funded Research Project, PI = Principal investigator

Fig. 1 Flow diagram of C.A.U. research administration and linkage system

3.2 CAU Research strategies

a) Intramural Research Project (IRP)

The Central Agricultural University, Imphal has neither agro-climate nor commodity based Agricultural Research Stations/Farms to solve the immediate location specific needs and problems related to agricultural and allied sciences, hence the university conceptualised and initiated discipline based short/medium term University Funded Research Programmes (UFRPs) in all the constituent colleges under the name “Intramural Research Project (IRP)” with the following objectives:

1. To tackle location specific priority research

problems (basic, applied and adaptive) of immediate concern.

2. To strengthen research based teaching programme in the university.
3. To build up research capabilities of young teachers/scientists of the university.

b) Extramural Research Project (ERP)

The University also attempted for Externally Funded Research Programmes (EFRPs) under the name Extramural Research Project (ERP) on the identified research thrust areas of each constituent college under the university. All the faculty members were encouraged for applying externally funded research



programmes on agriculture and allied disciplines in the identified research thrust areas of the University for solving basic, strategic and applied research problems of NEH region.

c) Adaptive Research Projects (ARP)

With the continuation of the present strategies of discipline based basic, strategic and applied research approaches through internal and external funding in all the constituent colleges of the university on pre-identified research thrust areas and prioritized researchable issues of immediate concern, the university is now to take up “Adaptive Research Projects (ARPs)” for testing, verification and refinement for those research recommendations and findings generated from each constituent college to all the states of NEH Region.

d) Monitoring and Evaluation of Research Projects

The Directorate of Research, CAU, Imphal with its mandatory responsibility to supervise, co-ordinate and monitor all the research activities under the University, the research work conducted by faculty of the constituent colleges of CAU have to be monitored and evaluated at regular interval for smooth functioning and fruitful results. The Research Review Meeting of all internally and externally funded projects

is being conducted for all the constituent colleges quarterly i.e. every three months. The Quarterly Research Review Meeting is being held at the constituent college by the concerned Dean and Chairman, CRAC along with the Members of CRAC. Half yearly Research Review Meeting is being conducted by the Director of Research, CAU, Imphal as Chairman along with the concerned Dean and Members of CRAC of the constituent college. Further, the Research Council Meeting will be held yearly and detailed research review will be made by the Hon’ble Vice-Chancellor and Chairman, CAU, Research Council along with all the Members of the Research Council including Co-opted Members.

3.3. CAU Research and Development Achievements, 2016-17

During the year under report, The university carried out 87 (eighty seven) Intramural Research Projects (IRPs) under University Funded Research Programmes and 172 (one hundred seventy two) Externally Funded Research Projects including 35 (thirty five) All India Co-ordinated Research Projects (AICRPs) and 6 (six) All India Network Research Projects (AINRPs) as detailed below in the Table 1 and Table 2.

Table 3.3.1 Intra-mural Research Projects (IRPs) under University Funded Research Programmes as on 31.3.2017

Sl. No.	Directorate/ College	No. of IRP Completed	No. of IRP ongoing	Total no. of IRP
1.	College of Agriculture, CAU, Imphal, Manipur	2	25	27
2.	College of Vety. Sc. & A.H., CAU, Selesih, Aizawl, Mizoram	8	20	28
3.	College of Fisheries, CAU, Lembucherra, Tripura	Nil	5	5
4.	College of Horticulture & Forestry, CAU, Pasighat, Arunachal Pradesh	Nil	4	4

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Sl. No.	Directorate/ College	No. of IRP Completed	No. of IRP ongoing	Total no. of IRP
5.	College of Home Sciences, CAU, Tura, Meghalaya	4	4	8
6.	College of Agril. Engg. & Post Harvest Technology, CAU, Ranipool, Gangtok, Sikkim	1	8	9
7.	College of Post Graduate Studies, CAU, Umiam, Meghalaya	5	3	8
	Total	20	67	87

Table 3.3.2 Externally Funded Research Projects (EFRPs) as on 31.3.2017

Sl. No.	Directorate/College	No. of EFRP completed	Ongoing 2016-17 (AICRP + AINP + EFRP)			Total no. of EFRP Colum no. (3+6)
			AICRP (Co-ordinated Research Projects)	AINP (Network projects)	No. of EFRP	
1	2	3	4	5	6	7
1.	Directorate of Research, CAU, Imphal, Manipur	1	9	Nil	13	14
2.	College of Agriculture, CAU, Imphal, Manipur	3	6	Nil	17	20
3.	College of Vety. Sc. & A.H., CAU, Selesih, Aizawl, Mizoram	8	2	1	16	24
4.	College of Fisheries, CAU, Lembucherra, Tripura	4	Nil	Nil	14	18
5.	College of Horticulture & Forestry, CAU, Pasighat, Arunachal Pradesh	20	11	5	21	41
6.	College of Home Sciences, CAU, Tura, Meghalaya	5	1	Nil	5	10
7.	College of Agril. Engg. & Post Harvest Technology, CAU, Ranipool, Gangtok, Sikkim	3	4	Nil	14	17
8.	College of Post Graduate Studies, CAU, Umiam, Meghalaya	13	2	nil	15	28
	Total	57	35	6	115	172

3.4 Deliverable Research based agricultural technologies and practices for the NEH Region

As an outcome of the internally and externally funded research endeavours, the university was successful in developing location specific deliverable achievements, recommendations and research findings of 2016-17.

A. Agriculture

- Identified putative pod-specific upstream region from pigeon pea (under the ICAR funded project on “Development of pod borer resistant chickpea and pigeon pea”).



Sequence confirmation of tissue specific putative region from pigeon pea

- Development of mutant population in *Brassica campestris* and screening of mutant population for high yielding a) early maturing and b) moisture stress tolerant genotypes is in progress.



Field evaluation of selected M3 lines in M 27 background at two different locations

- Four rice endophyte (strains 1WE, 12WE, 22WE and 28WE) and four rice rhizobacteria (strains 1R, 12R, 48R and 79R) were identified as efficient antagonists against five major rice pathogens viz. *Rhizoctonia solani* (sheath blight), *Bipolaris oryzae* (Brown spot), *Magnaporthe grisea* (blast), *Ustilagonoida virens* (false smut) and *Sarocladium attenuatum* (sheath rot) form

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a collection of 121 rice endophytes. The wild rice endophyte *Serratia marsescens* strain 22WE was identified as promising bioinoculants which can provide habitat fitness benefits to host plant against aluminium toxicity tolerance.

- Liquid formulation of microbial consortium (CAU *Jhum* Bioenhancer) was developed for application to mixed crops of *jhum* fields of North East India and tested in four *jhum* fields at Lengpui village, Mizoram. The effect of combined application of CAU *Jhum* Bioenhancer and rock phosphate on growth of *jhum* rice against the traditional *jhum* practice were compared.
- Comparative performance of seedling root-dip (SRD) in SSP amended soil slurry + CAU-Bioenhancer + rock phosphate (@30 kg P₂O₅ ha⁻¹) against the recommended doses of fertilizers (100% RDF) evaluated



Growth of rice (CAU R1) in MS medium treated with endophyte (*Serratia marsescens* strain 22WE) inoculation and untreated (without endophyte inoculation)



CAU *Jhum* Bioenhancer and CAU Bioenhancer



Performance of CAU Bioenhancer evaluated on transplanted rice in farmers' field of Kakching, Manipur



on transplanted rice in farmers' field of Kakching, Thoubal, Manipur. Seedling root-dip in SSP and CAU Bioenhancer amended soil slurry+Foliar application of Zn and Si+50% RDP could produce comparable yield with that of 100% RDP and also involved 50% lesser input cost on phosphatic fertilizers.

- Stream discharge including emitter discharge was recorded to evaluate the performance of Gravity-fed Drip Irrigation System (GDIS). The dripper discharges were recorded for the dripper numbered from 1 to 15 along the slope. The discharge variation in the drippers is more than 20% when travelled from upper end of the sloppy land to the lower end. The discharge increases along the slope steadily due to availability of virtual pressure head at the lower end of the sloppy land.
- Based on mean performance for three continuous years under Manipur condition, soybean variety MACS 1460 is identified as the high yielding genotype with an average yield of 2300 kg/ha which was 35% higher than the locally recommended variety JS 335 and this variety is recommended for North Eastern Hill Zone during the 47th Annual Group Meet of AICRP (Soybean) held at GBPUA&T, Pantnagar, May 2017.
- Soybean genotypes DSb 21, DSb 28-3 and MACS 1460 have also been identified as sources for resistance against pest complex of soybean in North East hill region based on three years of continuous entomological screening trials and are recommended for breeding programme. Suitable chemical insecticides are also identified for management of insect – pests of soybean in North Eastern Hill

region based on consistency in three years' field trials which are listed below:

Insect	Insecticide
Bihar hairy caterpillar	Chlorantraniliprole 18.5SC@ 100ml/ha, Indoxacarb 15.8SC@ 300ml/ha, Quinalphos 25EC @ 1500ml/ha
Tobacco caterpillar	Quinalphos 25EC @ 1500ml/ha
Leaf webber	Quinalphos 25EC @ 1500ml/ha, Indoxacarb 15.8SC @ 300ml/ha
Aphids	Thiacloprid 21.7SC @650ml/ha, Thiamethoxam 30FS@10ml/ha, Indoxacarb 15.8SC @ 300 ml/ha

- Soybean processing and value addition under AICRP-Soybean:
 - Biscuits prepared with supplementation of soy flour 20-25% along with 5% level of scented black rice (having high antiooxidant activity) have a great impact on human health. This biscuit is nutritionally more superior to that of whole wheat flour biscuit.
 - Soy incorporated soy papad prepared using seeds of JS-335 and medium seeded local variety by blending of soy flour and black gram flour in the ratio of 20:80 was found to be superior than traditionally prepared papad from black gram dal/flour with respect to nutritional and ultimately the consumer acceptability.
- Recommended Technologies of Rapeseed & Mustard:
 - Identified JD-6, an early mustard variety as the best variety sown during November under conventional as well as zero tillage rice field and gave significantly higher seed yield of 751 kg/ha over local cultivar.
 - Broadcasting of mustard seeds just after rice harvest followed by light planking

was found to be promising option to optimize the yield. However, with the introduction of more productive varieties of early mustard i.e. “Pusa Mustard 28” was found to be more productive than JD-6.

- A variety of Indian mustard NRCHB-101 was found to be promising under both zero tillage and conventional tillage conditions over a period of four to five years with average seed yield of 1000 kg/ha under zero tillage and 1500 kg/ha under conventional tillage respectively. The variety matures in 135 days when it is sown by October and 125-130 days if it is sown by end of November or early December.
- Another variety DRMR-150-35 developed by the Directorate of Rapeseed and Mustard Research, Bharatpur was found to be a good performing variety under Manipur valley conditions under rice fallow with potential yield of 1800 kg/ha under conventional tillage and 1400 kg/ha zero tillage.
- The foliar application of Thio-urea @ 0.05% twice at 50% flowering and 50% pod filling stage accompanied with 100% RDF (40-24-20-15 kg of N-P-K-S/ha) produced the maximum seed yield and oil recovery as well as monetary return in slightly acidic soils under limited water condition. Similarly, it gave 37.9%, 21.8% and 14.9% higher yield advantage over control, two foliar application of 1% urea and 1% KNO₃, respectively at both stages, 50% flowering + 50% pod filling stage.
- Early maturity and high yielding variety of mustard (44 S 01 and DRMR 150-35) performed extremely well and produced significantly higher seed yield than the national check “JD 06” irrespective of fertility levels under limited resources.
- Among the fertility levels however, application of 125% of recommended dose of fertilizer i.e. 40 kg of nitrogen, 24 kg of P₂O₅, 20 kg of K₂O and 16 kg of sulphur /ha significantly exhibited to be the best for commercial cultivation at Manipur foothills and similar situations of NEH region.
- The yellow sarson “Pitambari” produced the maximum seed yield (1538.79 kg/ha), though, recorded statistically non-significant with “TS-36” but proved to be significantly superior over rest of varieties (Benoy, Rajendra Suflam, NRCHB-101, YSH-401 and NDRE-7) during the course of study. It also gave 4.73% additional seed yield over an existing variety (YSH-401) under yellow sarson of the region.
- Combination of the Pitambari and first date of sowing (October 13th) produced the maximum seed yield of 1875 kg/ha and showed its distinct superiority over any combinations of variety and date of sowing.
- To achieve significant seed yield as well as monetary advantage, the Indian mustard variety “NRCHB-101” could possibly be sown latest by first week of November at spacing of 30x10 cm accompanied with 100% RDF (60 kg N, 32 kg P₂O₅, 20 kg K₂O and 24 kg sulphur per ha) under protected irrigation beyond that significant reduction occurred.
- Indian mustard “NRCHB 101” be applied at 80 kg nitrogen, 40 kg phosphorus, 30 kg potassium per ha for better



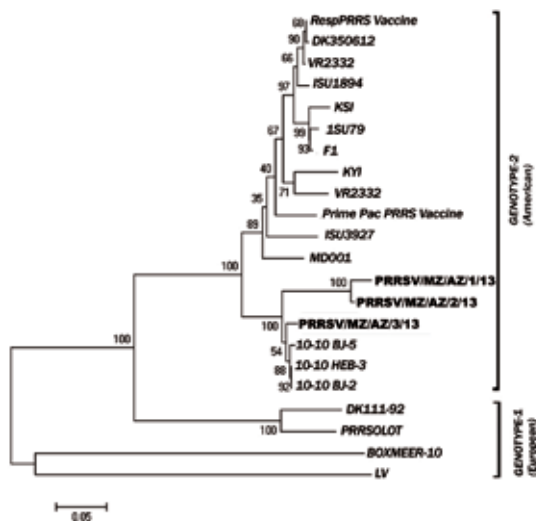
productivity and profitability under rainfed and late sown condition.

- Identified two yellow sarson varieties “Pitambari & YSH-401, which were the most promising varieties under valley conditions of Manipur producing seed yield of 1500 kg/ha within 110-115 days. These varieties can also be grown under zero tillage conditions wherever possible.
- Growing of fodder oat successfully for green fodder and seed purpose has been recommended for Manipur and similar situations of NEH region.

- Quality Seed Production of CAU-R1 (*Tamphaphou*).
- During the year 2016-17, 173.86 tonnes of quality seed of CAU-R1 (*Tamphaphou*) was produced. The processed seed was made available to the farmers of the Manipur and NEH region.

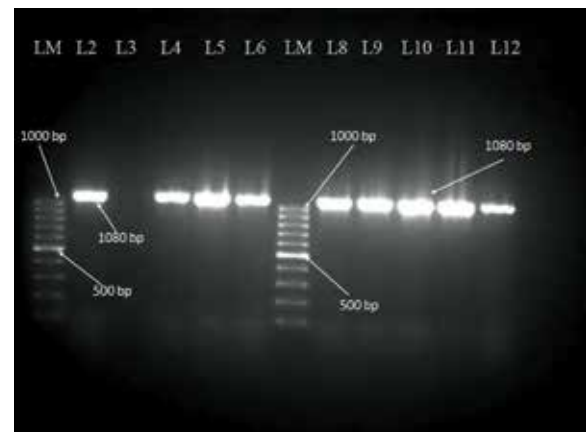
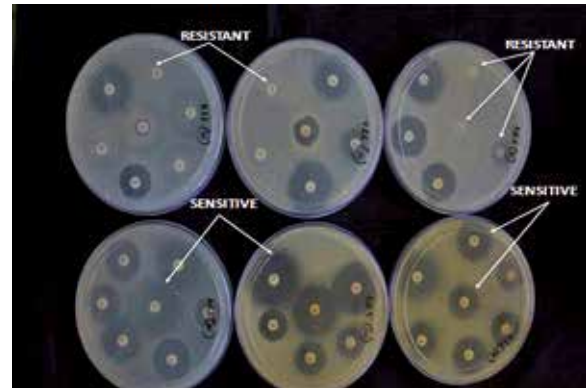
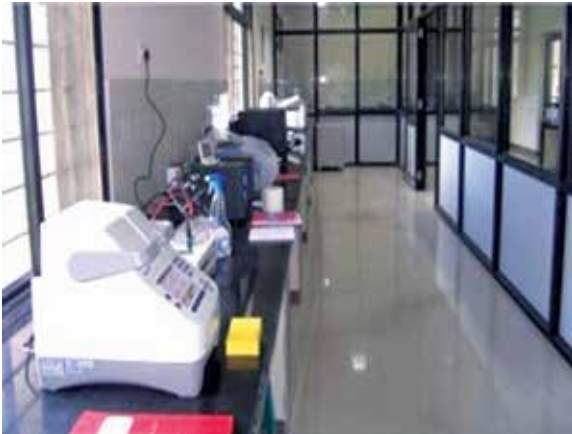
B. Veterinary Sciences

- Characterization of Indigenous Cattle of Manipur and Mizoram has been done.
- Outbreak of PRRS in Mizoram was studied and reported through cloning and sequencing of PRRS virus ORF4, ORF5 & ORF7 genes.



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- Established specialized diagnosis laboratory for trans-boundary Animal Diseases using molecular and serological techniques.
- Detection of Multi Drug Resistance (MDR) bacterial infection (veterinary) based on genotypic characterization of the isolates.





- Improvement in the growth of local pigs (Zovawk) by cross breeding with exotic LWY.
 - Up-gradation of local pig (Zovawk) using Large White Yorkshire (LWY) up to 75% blood level of LWY has been achieved. Accession number (India_Pig_2700_Zovawk_09007) has been given by NBAGR.
 - Seventy pigs of 75% LWY germplasm have been generated.
 - Improvement in the growth of 75% LWY (61.7 ± 2.40 kg at 8 months of age) have been noticed compared to 23.51 ± 1.25 kg in pure Zovawk.



Pure Zovawk (Gilt)



75% LWY (Gilt)

- Two plant extracts were identified from Mizoram with wound healing property *byinvivo* assessment.



Ageratum



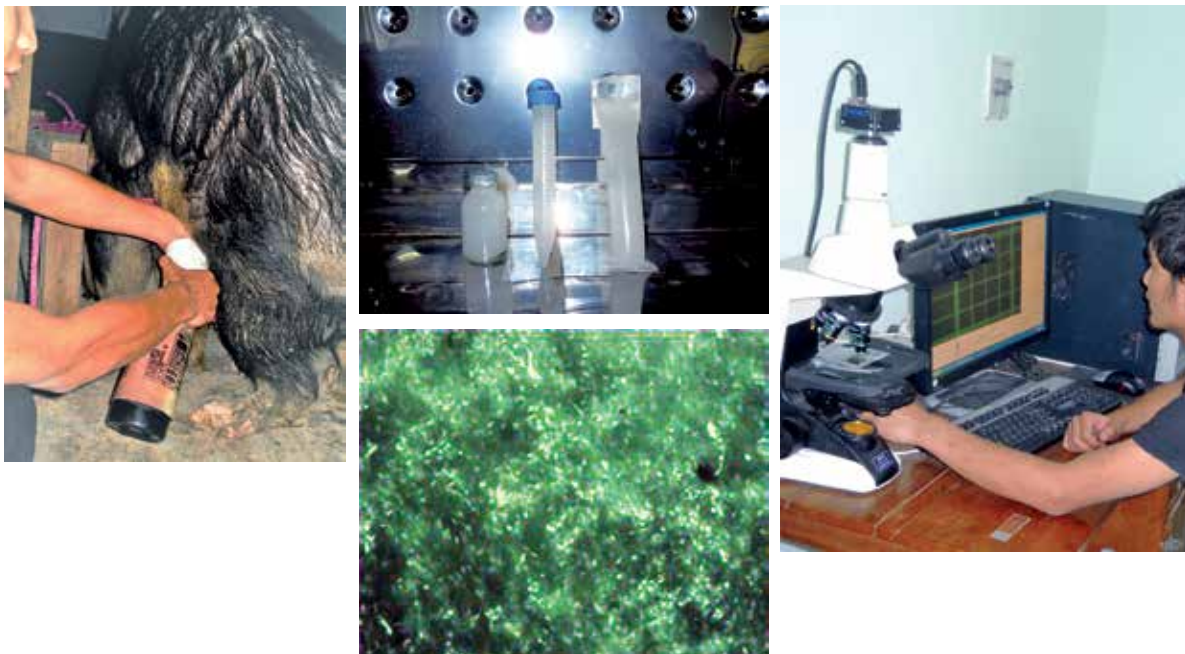
Mikania

RESEARCH AND DEVELOPMENT

- *In vitro* and *in vivo* horizontal transmission of beta lactamase genes amongst different genus of enteric bacteria established.



- An improved diagnostic technique (LAMP) developed for rapid and specific detection of EPEC in pigs.
 - Initially designed to detect the enteropathogenic *E. coli* (EPEC).
 - Highly specific isothermal *in vitro* assay.
 - Does not require sophisticated equipments like, PCR, Gel Doc, Electrophoresis etc.
 - Can be applied for other frequently encountered diseases in animals.
- Techniques of ejaculation, quality evaluation and preservation of liquid semen of Zovawk standardized for introduction of AI in pigs.





- The weaning age of piglets was standardized at 28-35 days against standard age of 42 days for better performance of sows.



- Developed protocol for preparation of Functional Chicken Nuggets and Patties by Incorporating French Bean and Chickpea Flour.
 - Chicken nuggets and patties formulated by incorporating chickpea flour and French bean to increase the dietary fiber content.
 - Storage life is > 12 months when vacuum packaged.
 - Could decrease the fat content up to 15%.
 - Technology has been transferred among the local people for preparation of the products through training in the department.



- Preparation of vawksa-rep (dried pork) with extended shelf life up to 3 months under room temperature.
 - Traditional products produced by the local producers by smoking the pork and remain stable for max. 3 days.

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- Vawksa-rep prepared under controlled oven and vacuum packaged sustain 15 days under RT and 2 months under refrigeration.



- Preparation of herbal ointment using locally available herbs for effective treatment of demodectic mange of pigs.
 - Developed one Poly herb ointment “NIL SRM-PIG” which is 98% effective against sarcoptic mange infestation in pig.



- Under Advanced Animal Disease Diagnosis and Management Consortium, the corelab-III has processed the clinical specimens and diagnosed the following diseases in Mizoram:
 - Diagnosed enteropathogenic *E. coli* (EPEC) associated piglet diarrhea.
 - Diagnosed virulent *Salmonella miami* and *Salmonella infants* associated piglet diarrhea.
 - Reported greasy pig disease caused by *Staphylococcus hyicus* in pigs in Mizoram.
 - Diagnosed and confirmed the outbreak of PRRS in pig population in Mizoram.
 - Diagnosed outbreak of goat pox in wild goats of Mizoram.
 - Screened ser samples of goats of Mizoram for PPR infection and recorded as negative for PPR antigen and antibody.
- Under Viral metagenomic profiling of native and migratory aquatic birds of North-



eastern states to unravel influenza virus ecology harboured in them, a total of 753 samples were collected which include 441 oropharyngeal swab and 312 cloacal swab from native and migratory water fowls mostly goose species from Assam and Manipur. All the samples were processed for purification of viromes by Ultracentrifugation and isolation of Influenza and other viruses by Embryonated Chicken Egg inoculation. Total 24 pools of virome were purified in set of 8 viromes from 3 different water bodies. First batch of processed samples were sent for viral DNA and RNA sequencing by Illumina NextSeq platform 150x2bp. Total 15 Influenza A viruses of H3N8 subtypes were isolated. Novel H3N8 Influenza Viruses were isolated from Migratory Rudysshell Ducks as well as Barheaded Goose. This is the first isolation from migratory species of birds from NER region and India.

- Prevalence of both clinical and sub-clinical mastitis of which sub-clinical mastitis is of major concern as its prevalence is very high as compared to clinical mastitis. The sequencing information obtained for *spa* typing revealed that all the isolates belong to *spa* type t267. It was also evident that the *S. aureus* is one of the major mastitis causing organism carrying pathogenic and antibiotic resistant genes which is a matter of grave concern.
- Wound healing properties of herbal plant extracts by employing various relevant *in vitro* and *in vivo* model systems observed that the plant extracts promote the proliferation, migration and pro-angiogenic properties which might contribute to the enhancement of wound healing process. Further, studies with these extracts in *in vivo* wound

models demonstrated an accelerated wound healing potential of these extracts. The plants extract which we identified were traditionally used for wound healing in the north eastern region and showed promising wound healing and angiogenesis activity.

C. Fisheries

- **Development of breeding protocol and optimization of stocking density during seed nursing and rearing of Minor carps**
 - Seed Production of *Cirrhinus reba*
 - ◆ Induced with ovatide @0.4 (Male) – 0.5 (Female) ml / kg body wt.
 - ◆ Average fertilization rate of 86% and average hatching rate of 83%.
 - ◆ Average survival from spawn to fry was 13.6% (2014-15) at stocking density of 3-3.5 million ha⁻¹ but 55.8±0.81% during 2015-16.
 - ◆ Average survival of rearing of fry to fingerling was 26% (2014-15) and 88.3±2.68% in the year 2015-16 @1.0 lakh/ha for 45 days.
 - Seed Production of *Osetobrama belangeri*
 - ◆ Induced with ovatide @0.4 (Male) – 0.5 (Female) ml / kg body wt.
 - ◆ Average fertilization rate of 90% and hatching rate of 86%.
 - ◆ Survival from spawn to fry @70.67±13.00 was achieved with stocking density of 3 million/ha of spawns.
 - ◆ Survival during rearing of fry to fingerling was 87.28±4.88% was achieved when fry were stocked @1.0 lakh/ha for 45 days.
- **Optimization of larval and fry stocking density on growth performance of butter**

- catfish (pabda, *Ompok bimaculatus*)**
- The stocking density of 10 larvae l-1 was observed to be appropriate for larval rearing of *Ompok bimaculatus* with 4 times feeding frequencies.
 - The stocking density @ 100 fry m-3 is found to be optimum and quite profitable for fingerling production in cages installed in ponds.
- **Evaluation of *Wolffia* meal (WM) as a local replacement of dietary fish meal (FM) and wheat meal (WM) in supplementary feed for pengba (*Osteobrama belangeri*)**
 - Meal of on-farm grown *Wolffia* (WM) was utilized to simultaneously replace fish meal (at inclusion level of 20%) and wheat meal (at 43%) on protein and starch basis, simultaneously.
 - Locally produced *Wolffia* meal (WM) could completely replace both the dietary fish meal (FM) and wheat flour (WF) at inclusion levels of 20% and 43%, respectively in diet for pengba (*Osteobrama belangeri*) without any growth reduction.
 - The growth performance and body weight gain % of pengba were significantly higher in treatment where FM and WF were completely replaced by WM than those with control (FM @ 20% and no WM).
 - The highest organoleptic sensory score was obtained for pengba reared on diet where 50% of fish meal and wheat flour were replaced by WM.
 - The feed cost of fish production was reduced up to 35% with 100% replacement levels.
 - **Evaluation of unprocessed and processed taro corms as local replacement of corn starch in carp feeds**
 - The unprocessed (simple dried) and processed (boiled, extruded and soaked) corms of a wild variety of taro were evaluated as local starch source to replace dietary corn starch for Amur common carp (*Cyprinus carpio*).
 - Compared to unprocessed corms, the total oxalate contents (mg/100g DM) was reduced by 20% (extrusion)-50% (soaking).
 - Unprocessed taro corms lead to remarkably inferior growth, feed utilization and health status.
 - Extruded and soaked taro corms led to significantly higher growth than that with control diet.
 - **Pilot scale fry and table fish production of pengba (*Osteobrama belangeri*) in Tripura**
 - Pilot scale nursing and rearing of pengba (*O. belangeri*) fry and fingerling and table size fish production in seasonal earthen ponds under semi-intensive management were achieved for the first time in Tripura. The culture system was fertilized and combination of formulated feed and live wolffia was used as external nutrient source. In this regard,
 - Produced fingerlings were utilized to stocking grow-out ponds for table sized pengba production in earthen pots as part of UG students' Experiential Learning Programme and/or for project and PG students' research.
 - The college provided seed requirement of ICAR-Central Institute of Freshwater Aquaculture (CIFA), Orissa 2000 (two thousand) no. of advance fry.
 - **Effect of dietary wolffia meal (WM) and spirulina meal (SM) on growth**



performance and pigmentation of *Colisa fasciatus*

- Both dietary WM and SM had a positive impact in pigmentation and hence both could be used as a colour enhancing sources. The SM fortified diet had greater impact on growth but less pronounced impact on survival with moderate impact on pigmentation, while WM had superior impact on pigmentation and survival with less pronounced impact on the growth.
- **Bar Coding of fish fauna of NE Region**
 - A total of 158 species have been bar-coded from all over the North Eastern states.
 - DNA barcode of 96 fish species (51 from Mizoram, 40 from Meghalaya, 21 from Manipur and 10 from Nagaland) have been generated and COI sequences were submitted in NCBI GenBank Database. DNA barcode of nine species namely, *Pillia indica* collected from Ganol/Kalu river, Meghalaya, *Channa ornatipinnis*, *Parambassis vollmeri* and *Garra naganensis* collected from Kaladan and Tlwang River, Mizoram, *Akysis manipurensis*, *Lepidocephlichthys berdmorei* and *Mystus cineraceus* from Khujai lake, Chakpi and Lokchao River in Manipur and *Schistura nagaensis* & *Paracanthocobitis adelaideae* collected from Chate and Tizu river of Nagaland, were generated for the first time.
- **Tissue specific expression of Aquaporin 11 and 12 and their differential expression during reproductive stages in *C. batrachus***
 - Various isoforms such as AQP 3a, AQP 4, AQP 0a, AQP 7 and AQP 1a of *Clarias batrachus* have been isolated, cloned, sequenced and submitted to NCBI

database.

- Differential tissue expression of AQP 3a and AQP 4 has been done during different reproductive stages.
- **Development of Novel microsatellites in *Channa* species from north east for conservation genetics**
 - 82 number of COI Sequence and 58 number of cyto b gene sequence has been submitted to NCBI gene bank. The expected heterozygosity and observed heterozygosity of eight species of *Channa* was calculated to be 0.47 & 0.67 respectively using Hardy-Weinberg Equilibrium. Among all the eight species, *C. punctata* showed highest polymorphism with the primers followed by *C. marulia*, *C. striata*, *C. gachua*, *C. orientalis*, *C. barca*, *C. stewartii* and *C. ornatipinnis*.
- **Transcriptome profiling in *Labeo rohita* to identify iron toxicity responsive genes and development of type-I marker**
 - *In vivo* exposure of FeSO₄ (concentration = 30mg-L i.e. 1/4th of LC₅₀) to *Labeo rohita* caused histological alteration i.e. distal end hyperplasia and lamellae fusion in gills and increased the number of hepatocytes, vacuolization and tissue degeneration of liver tissue.
 - Expression level of transferrin and ferritin were also examined in treatment vs. control. Transferrin expression was found significantly lower than the controls in the Gill and liver in response to iron overload (19 and 09 fold respectively). Ferritin expression was found to inversely reflect transferrin in liver where as in gills no increase was observed. The expression of ferritin in liver was

- significantly higher than control in iron overload (23 fold respectively).
- **Fish-Health including Trans-boundary Disease and Parasites**
 - Experiments were conducted to know the patho-physiological responses of pathogen (*Saprolegnia parasitica*) in fish.
 - Bacterial pathogens such as *Aeromonas hydrophila* and fungal pathogen such as *Aphanomyces invadans* and *Saprolegnia parasitica* has been isolated from infected specimens collected from different sampling sites of the state and were identified by PCR & partial gene sequencing method.
 - Diagnosis protocol for viral diseases and molecular identification of fish parasites are under standardization mode.
 - **Dietary supplementation for restoring health and growth of fish during chronic exposure to water borne iron and acidity in Tripura**
 - An experiment on combined effect of low pH and water borne iron on hematological, biochemical, immunological responses of *Labeo rohita* fingerlings was conducted. The study showed that the exposure of rohu to high water borne iron concentration with lowest pH causes 100% mortality.
 - The feeding trial in *L. rohita* with dietary Ashwagandha extract was found to be effective and has the potential to increase the resistance capacity of fish against the water born iron and acid toxicity.
 - **Effects of ketoconazole, mebendazole and miconazole on patho-physiological responses and gill monogenean in *Labeo rohita* (Hamilton) fingerlings**
 - Rohu injected with ketoconazole at 0.015 mg/kg body weight significantly enhanced the biochemical and immunological responses. Rohu fed with ketoconazole @ 20 mg/kg body weight was found to be effective against *Saprolegnia Parasitica* infection.
 - Sub lethal exposure of mebendazole through bath treatment enhanced the patho-physiological responses of rohu. Rohu fed with mebendazole @ 30 mg/kg body weight was found to be effective against gill monogenean infection.
 - Miconazole nitrate injection to rohu @0.0102 mg/kg body weight and fed to rohu @ 25.2 mg/kg body weight were significantly effective against *Saprolegnia Parasitica* infection. Sub lethal exposure of miconazole nitrate through injection and feed treatment also enhanced the patho-physiological responses of rohu.
 - **Development of a biofloc-probiotic integrated system for aquaculture bioremediation and fish health management**
 - Biofloc systems were developed successfully with molasses and wheat flour as carbohydrate sources and rohu (*Labeo rohita*) as cultured fish species. The systems have been found to be effective in terms of bioremediation capability and fish health management.
 - Dietary administration of biofloc meal at 4% inclusion level enhanced the immune responses, immune gene expression and disease resistance of rohu indicating potential use of biofloc meal as immunostimulant.



- **Molecular characterization of leptin in Indian major carps**
 - Complete characterization of the leptin gene from rohu has been done and the sequences have been submitted to the NCBI data base (GenBank accession numbers are KX241861, KX241862 and KX241863).
 - Rohu leptin shares maximum similarity with *Cyprinus carpio* var. Jian leptin A1 (78.95%) and belongs to leptin A class.
- **Utilization of Detoxified Rubber Seed Cake in Aquafeed**
 - Protein concentrate has been prepared from the rubber seed kernel.
 - Solid phase fermentation processes has been standardized for detoxification of the rubber seed kernel.
 - Defatted rubber seed kernel can be used to replace mustard oil cake in fish feed formulation.
- **Non-specific immunity enhancement of *Catla catla* using heat killed probiotic bacteria *Bacillus amyloliquefaciens***
 - Heat killed probiotic bacteria *B. amyloliquefaciens* had a health ameliorating effect in catla particularly, at 10^8 cells g^{-1} diet suggesting its potential use as immunostimulant.
- **Fermented fish products of North East India: Characterization of microbes and their healthful metabolites for application and scale-up**
 - Biochemical and microbial characteristics of fermented fish products of northeast India such as shidals (punti Shidal and phasa Shidal), Ngari, Hentak, Tangtup, Numsing, Lonailish, Dang-Pui-Thu, Napti etc. have been evaluated.
 - Widely popular fermented fish products such as Shidal and Ngari were found rich in antioxidative property measured as DPPH radical scavenging activity.
- **Improvement of safety and quality of transglutaminase mediated restructured fish products by bioactive phenolics and terpenoids**
 - Eight Staphylococcal species such as *S. piscifermentans*, *S. condimenti*, *S. warneri*, *S. hominis*, *S. sciuri*, *S. arlettae*, *S. nepalensis*, *S. simulans* and eight lactic acid bacterial (LAB) species, namely, *Lactobacillus plantarum*, *Pediococcus lolii*, *Enterococcus faecium*, *Enterococcus faecalis*, *Enterococcus pentosaceus*, *Pediococcus acidilactici*, *Enterococcus hirae*, *Enterococcus lactis* were identified at molecular level as dominant microbes in the fermented fish products of northeast India.
 - Laboratory fermentation with starter inoculums *Lactobacillus plantarum* and *S. piscifermentans* reduced the total fermentation period from 120 days (control) to 75 days and 90 days with use of both the microbes and either one of the microbes respectively.
- **Analysis of phenol content, antioxidant and antimicrobial properties as well as phytochemical screening of commonly available spices in the NE such as ginger, garlic, onion, clove, cinnamon, black pepper confirmed their potentialities as replacement of chemical antioxidant and antimicrobial preservatives in fish product was carried out.**
 - Incorporation of microbial transglutaminase in sausage from mince and surimi of pangasius and silver carp showed a positive effect on gelling and textural characteristics.
 - 'Fish emulsion sausage' was developed using minced meat of Pangasius

providing oxidative and microbial safety from plant polyphenolics and terpenoids.

- 'Fish Paneer' was developed successfully from minced meat of *Pangasius* and microbial and oxidative safety during frozen storage was improved with incorporation of natural spices.
- Pre-treatment of fish with natural spice in powder form was found to improve the quality and shelf-life of dried fish at ambient temperature.
- The smoked fish pre-treated with aqueous extract of ginger and garlic at 1% level was found highly acceptable by the panel judges with enhanced shelf-life.
- Packing of traditional fish product 'Shidal' with natural spices such as ginger, garlic, turmeric and onion enhanced the shelf-life at ambient temperature compared to control in a storage study done for four months.
- **Development of fish protein isolate enriched extruded snacks**
 - Protein was isolated from *Pangas (Pangasianodon hypophthalmus)* and mixed with wheat flour and corn flour to develop extruded snacks.
 - The process conditions were determined by Response Surface Methodology (RSM) using a Central Composite Design to determine the effects of barrel set temperature (100, 110, and 120°C), screw speed (375,400 and 425 rpm), and total moisture (15,17.5 and 20%) on various physicochemical properties.
 - The fish gel was fixed at 25% and seventeen treatments were selected

for study.

- The fitting was done to a second order response model with the coded variables for each response. The experimental values agreed well with the predicted ones that are obtained from the model.
- The overall acceptability of the extrudates from the three treatments (5 and 4) was found highest but not significantly different.
- **Development of shelf stable fish paneer from low cost fish through retort pouch processing technology**
 - Paneer developed incorporating fish meat in minced form utilizing low cost fish *Pangas (P. hypophthalmus)* along with a combination of 2% each of salt, potato starch and soya protein isolate.
 - Thermal processing of fish paneer curry in retort pouch was carried out at different F0 values (6, 7 & 8) and temperatures (116°C & 121°C).
 - Final process temperature of 121°C at F0 6 based on the commercial sterility test, sensory evaluation, colour and texture profile analysis of the finished product.
 - No significant change in biochemical, textural, microbial quality and sensory acceptability was observed after 8 months of storage study at room temperature.

D. Horticulture & Forestry

- In citrus 28 genotypes have been collected from different regions of north east and maintained in the field.
- Low cost hydroponic seed germination technique for Rangpur lime (*Citrus limonia*) has been standardised.



Citrus indica



Budded Khasi Mandarin

- Approximately two lakh budded Khasi Mandarin seedlings were raised during 2013-14 to 2015-16 for distribution among the growers.
- After evaluating 40 different genotypes of pummelo in East Siang District, two genotypes have been selected based on high TSS. (T27 with 12.90° Brix and T40 with 12.17° Brix).
- Application of stockosorb in Assam lemon has been standardized under Pasighat condition. The productivity of the crop can be increased by 43 per cent by application of 100 g of stockosorb per plant in comparison to the control. Further, in case of khasi mandarin its application of @ 60 g/ plant enhanced the yield by 43 per cent.
- Use of PGR for higher percentage of flowering in pineapple cv Kew has been standardized. Foliar spray of 240 ppm ethephon + 2% Urea showed highest flowering percentage of 93.66 % followed by 25 ppm ethephon + 0.04% calcium carbide + 2% urea with 91.33%.
- Promoting the commercial production of litchi in foot hills of Arunachal Pradesh. Initial observation made at the college revealed that climate of East Siang District of Arunachal Pradesh is most conducive for production of litchi. The region is also free from problem fruit cracking and has the added advantage of extended harvesting period almost 10 to 15 days as compared to other parts of the country.
- Use of nitrogen and Potash fertilizer on litchi cv Muzzafarpur has been standardized for foothill of Arunachal Pradesh. Application of Nitrogen 600g in combination with Potassium 200g produced a maximum fruit yield of 24.52 kg per tree.
- Use of mulch material (Black polythene) and hydrogel (40 g/tree) has resulted in enhancing the growth, yield (6.61 kg/tree) and fruit quality of young litchi plant of 4 years age under Pasighat condition.
- Use of PGR for making healthy and vigorous air-layer in guava var. L-49 has been standardized. IBA 20000 ppm and IBA 10000 ppm + NAA 10000 ppm on the etiolated shoots during the month of June can be recommended for making healthy and vigorous air-layers in guava (*Psidium guajava* L.) var. L-49. At CHF, Pasighat, fruit yield of 25 tons per hectare has been obtained under good management practices.
- IPM module for management of citrus trunk borer, *Pseudonemophas versteegii* has been developed.

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- First occurrence report of an invasive longhorn beetle and stem borer, *Aristobia reticulator* (Voet) (Coleoptera: Cerambycidae) in litchi, *Litchi chinensis* Sonn. (Sapindaceae), in India has been reported.
- First occurrence of mango leaf cutting weevil, *Deporous marginatus* in mango plantations of Arunachal Pradesh has been reported.
- A checklist of the Long-horned Beetles (Coleoptera: Cerambycidae) of Arunachal Pradesh, northeastern India with several new reports has been prepared. A total of 49 species of cerambycids were collected from Arunachal Pradesh. *Rhytidodera griseofasciata* is reported for the first time from India. Seven species are being reported from Arunachal Pradesh for the first time.
- Surabhi and Suruchi were found to be more rhizome yielder (> 35 %) than other locally grown indigenous ginger material.
- Megha turmeric-1 and Pant Pitabh were found to be more curcumin yielder per hectare basis in comparison other grown varieties in turmeric.
- Use of grass mulch gave maximum pod yield i.e. 90.17 q/ha. (56.38% increase over control), and it was closely followed by plastic mulch (89.88q/ha.). Untreated control recorded 57.66q/ha pod yield.
- Application of metribuzin @ 0.75 kg a.i./ha as pre-emergence recorded 3.4 t/ha tuber yield as compared to 0.95t/ha in untreated control in potato variety Kufri Jyoti.
- Technology has been standardized to raise the chilli crop during pre kharif period taking the advantage of monsoon. The fruit yield potential is about 200 q/ha with harnessing of pre monsoon showers.
- A low-cost poly house technology has been standardized for round the year production of vegetables crops like cucumber, bottle gourd, capsicum and tomato. The cost of the poly house is about Rs. 10,000 to 12,000 for 30' X 15'.
- Spraying of two rounds of *Bacillus thuringiensis* @ 500g/ha and *Steinernema carpocapsae* @ 20 million ijs/ha at 15 days interval during head formation stage could reduce the larval population of *Plutella xylostella* to 0.22 and 0.40 per leaf, respectively as compared to 0.93 larvae/leaf in untreated control.
- For wilt management in chilli, soil application of PASIPUSA @5% twice soon after transplanting and 15 days after the first application reduced 68 per cent wilt incidence and increased the yield by 38 per cent over the untreated control.
- For wilt management in tomato *Pseudomonas putida*, soil application of PASIPUSA @5% twice soon after transplanting and 15 days after the first application reduced 78 per cent wilt incidence and increased the yield 49 per cent over untreated control.
- Biocontrol through *Trichoderma*, *Trichoderma viride* was mass multiplied and given the name CAU GREEN GOLD for managing soil borne pathogens of ginger and other solanaceous vegetables.
- For enhancing the storage life of ginger, treatment with *Trichoderma viride* (0.5%) was found most effective.
- Ten varieties of Anthurium (*Anthurium andreanum* Lind.) namely Chikas, Chokos, Tropical, Pistache, Acropolis, Midori, Fire, Mauritius Orange, Hawaii Orange and Rosetta were evaluated in Pasighat for their growth and flower yield parameters. Tropical was observed as the most suitable



variety for commercial cultivation under protected conditions.

- Amongst different vase solutions tested, the vase solution of 4 per cent sucrose with 25ppm silver nitrate was found to be as the best vase solution for gerbera cut flowers.
- 152 Species of medicinal and aromatic plants are maintained in the Herbal Garden for educational and demonstration purposes.

E. Agricultural Engineering

- The portable PVC light weight biogas plant with varied capacities 0.25, 0.5 and 1 cubic meter biogas was evaluated with kitchen residues for daily needs of one rural family. The experiments were carried out to produce biogas from a floating drum type portable biogas plant having volume capacity 0.25 m³ for outdoor climatic condition at College of Agricultural Engineering and Post Harvest Technology, Central Agricultural University, Ranipool Gangtok, Sikkim, India. Study revealed



that the food residues is the best source of methane generation due to its biodegradable capacity. Biogas production from different food residues could be enhanced by adopting biotechnological applications. It is also revealed that the small capacity kitchen waste biogas plant is most suitable in NEH region. It is concluded that the floating drum type 0.25, 0.50 and 1.0 cubic meter capacity portable kitchen residue biogas plant working successfully in the NEH region.

- The process for development of RTS beverages using ginger and other fruit juices has been standardized.
- Soil moisture characteristics curves were developed for different types of soil in Sikkim.
- Though the field measurement of infiltration rate is time consuming and very difficult in the hilly terrain, an attempt has been made to estimate the infiltration rate from the widely used infiltration models namely Horton, Philip, Kostikov and Green Ampt infiltration models. Out of this, the best fitted infiltration model will be identified for the prediction of infiltration rate in the east Sikkim.
- Studied the prediction of lean season discharge of springs to manage efficiently the water needs of the mountain inhabitants.
- Natural resources map viz., terrain map, stream maps, land use maps of South Sikkim district were prepared.
- Water resources management strategy were formulated for Sikkim and circulated to all the line departments concerned.
- Improved package of animal drawn equipment namely multipurpose tool frame with attachment, clod crusher-leveler-planker-puddler, single row and

two row multi crop seed drill, zero till seed drill (for buck wheat), improved maize planter with yoke/ harness, improved potato digger for cultivation in valleys, terraces and hill slopes have been introduced to the farmers.

- Study conducted on Gap Analysis of Skill Development in Agricultural Engineering and Technology Education revealed that there should be more emphasis on Information of Communication Technology (ICT) and Computer aided Design/ Manufacturing (CAD/CAM) and more participation of Agricultural Engineering in design of different components of conservation agriculture, precision agriculture, secondary agriculture and Hi-tech cultivation. The result of this study will help in increasing skill level and educational attainment of the workforce, regular industry – University/Institute connects will increase the awareness of students about industry demands and work culture.

3.5. A Brief Report on “Enhancing Socio-economic Status and Livelihood Security of Tribal Farmers of NE States through Agricultural Intervention” under Tribal Sub Plan

A project on Enhancing Socio-economic Status and Livelihood Security of Tribal Farmers of NE States through Agricultural Intervention” under Tribal Sub Plan was granted for 2 years to CAU, Imphal with Dr. M. Premjit Singh, Director of Extension Education, CAU, Imphal and Dr. C.A. Srinivasamurthy, Director of Research, CAU, Imphal as the Nodal Officer. The details of the project and subproject are given in Table 3.5.1.

Table 3.5.1. Project and subprojects details:

Title of the project and subprojects
Enhancing Socio-economic Status and Livelihood Security of Tribal Farmers of NE States through Agricultural Intervention
Sub-Project 1: Promotion and popularization of Improved Agricultural Technology for higher productivity of crops, livestock and fisheries
Sub-Project 2: Integrated Farming System for better employment and livelihood security for upliftment of tribal farmers by using beekeeping, optimum use of land and water resources in the tribal areas
Sub-Project 3: Capacity building of tribal farmers on advanced agricultural technologies among rural educated unemployed tribal youths of NEH states for entrepreneurial development.

Brief summary of work

Baseline Survey and performed PRA exercises in all the fifteen (15) CD Blocks of five NEH states viz. Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Nagaland with the help of village headmen of the respective villages.

Primary and secondary data were collected and corroborated to develop an agriculture resource map for each of the identified villages from the specified fifteen (15) CD Blocks of five NEH states. The team leaders of the respective colleges of five NEH states also interacted with the farmers of all theselected villages for their need based inputs. The inputs were arranged through purchase committee at each college, construction of polyhouses, mushroom houses and vermicompost pits was facilitated through the construction committee. Various training programmes and distribution of inputs to the farmers were arranged through training organizing committees of the respective colleges. Various improved agricultural tools and implements, irrigation systems, animal components, quality planting material of



agricultural and horticultural crops, seeds etc. and animal components (cattle, goat, chicks, piglets) were procured with the help of different govt., non-govt. and private organizations and distributed to the beneficiaries.

3.5.2. Location of the TSP activity

Sl. No.	State and Target district	CD Block	% tribal population
1.	Arunachal Pradesh:		
	a. East Siang	a. Nari Koyu	a. 70.5
	b. West Siang	b. Basar	b. 82.6
	c. Upper Siang	c. Marying	c. 80.0
2.	Manipur:		
	a. Churachandpur	a. Churachandpur	a. 92.0
	b. Chandel	b. Chandel & Machi	b. 89.1
	c. Ukhrul	c. Phungyar	c. 94.4
	d. Senapati	d. Saikul & Kangpokpi	d. 87.5
3.	Meghalaya:		
	a. Ri-Bhoi	a. Umsning	a. 88.9
	b. West Garo Hills	b. Rongram	b. 73.7
4.	Mizoram:		
	a. Aizawl	a. Aizawl	a. 93.3
	b. Kolasib	b. Thingdawl	b. 87.7
	c. Mamit	c. Reiek	c. 95.0
5.	Nagaland		
	a. Peren	a. Peren	a. 88.5

3.5.3. Activities

Sl. No.	Name of the Sub-project	Type of activity (Trainings/ FLDs/ Exhibitions/ Exposure visits/ Others)	Title	Duration (days)	Location/Village
1.	Sub-Project 1: Promotion and popularization of Improved Agricultural Technology for higher productivity of crops, livestock and fisheries	a) Baseline survey b) Training c) Inputs distribution d) Demonstration	a) Baseline survey b) Training i) Promotion and Popularization of animal drawn/power tiller drawn implements. ii) Promotion and Popularization on Processing of honey based herbal drinks from underutilised fruits.	75 (5 days each for 15 blocks) 150 (10 days each for 15 blocks)	i) Arunachal Pradesh: a) East Siang: Nari Koyu b) West Siang: Basar c) Upper Siang: Marying

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Sl. No.	Name of the Sub-project	Type of activity (Trainings/ FLDs/ Exhibitions/ Exposure visits/ Others)	Title	Duration (days)	Location/Village
			c) Inputs distribution	225 (15 days each for 15 blocks)	ii) Manipur: a) Churachandpur: Churachandpur
			i) Tribal man and women friendly tools & equipments for drudgery reduction.	15 (1 day each for 15 blocks)	b) Chandel: Chandel and Machi
			d) Demonstration		c) U k h r u l : Phungyar
			i) Training on use, repair and maintenance of Power tiller with matching equipments.		d) Senapati: Saikul and Kangpokpi
2.	Sub-Project 2: Integrated Farming System for better employment and livelihood security for upliftment of tribal farmers by using beekeeping, optimum use of land and water resources in the tribal areas	Integrated Farming System units and creation of agriculture production & processing promotion facilities	a) Promotion and popularisation of water harvesting structures, conservation structures and water saving devices.	15 (1 day each for 15 blocks)	iii) Mizoram: a) Aizawl: Aizawl
			b) Promotion and popularisation of composting and seed storage.	15 (1 day each for 15 blocks)	b) Kolasib: Thingdawl
			c) Promotion and popularization of ginger and turmeric processing.		c) Mamit: Reiek
			d) Low cost poly-house cultivation of vegetables and high value crops.	15 (1 day each for 15 blocks)	iv) Meghalaya: a) Ri-Bhoi: Umsning
			e) Excavation and lining of farm ponds.	15 (1 day each for 15 blocks)	b) West Garo Hills: Rongram
			f) Installation of micro irrigation systems, solar pumps and low lift hand pumps for irrigation purpose.	15 (1 day each for 15 blocks)	v) Nagaland a) Peren: Peren



Sl. No.	Name of the Sub-project	Type of activity (Trainings/ FLDs/ Exhibitions/ Exposure visits/ Others)	Title	Duration (days)	Location/Village
3.	Sub-Project 3: Capacity building of tribal farmers on advanced agricultural technologies among rural educated unemployed tribal youths of NEH states for entrepreneurial development	Training and demonstration on advanced agricultural technologies, Farmers' Fair/Exhibition, Farmers Exposure Visit, Field Day/Mela	i) Awareness cum training on use of quality seeds/ planting materials/ breeds/ poultry. ii) Popularisation on rain water harvesting and its utilisation in rabi cropping. iii) Popularisation of vermicomposting and composting techniques for enrichment of soil fertility and promotion of organic farming. iv) Popularisation on use of small tools and implements for economic hill agriculture. v) Popularisation on protected cultivation of vegetables and flowers/ crops through low cost polyhouse. vi) Popularisation on processing and value addition. vii) Popularisation on seed storage for better keeping quality of seeds.	15 (1 day each for 15 blocks) 15 (1 day each for 15 blocks) 15 (1 day each for 15 blocks) 15 (1 day each for 15 blocks) 15 (1 day each for 15 blocks) 15 (1 day each for 15 blocks) 15 (1 day each for 15 blocks)	

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3.5.4. Major outcomes

Sl. No.	Name of the Subproject	Major Outcomes (10 bullets per subproject)
1.	Sub-Project 1: Promotion and popularization of Improved Agricultural Technology for higher productivity of crops, livestock and fisheries	<ul style="list-style-type: none"> • Baseline survey and PRA was conducted at 15 CD blocks of five NEH states for 75 days (5 days each per block) to collect and corroborate information on the current status of a population and to identify a descriptive cross-sectional survey that mostly provides quantitative information on the current status of agriculture for developing an agricultural resource map for all the blocks. • A total of 2550 nos. of twin wheel hoe, 705 nos. of cono weeder, 660 nos. of manual hand ridger, 660 nos. of manual Nabin dibbler, 660 nos. of manual peg dry land weeder, 660 nos. of Nabin serrated sickle, 660 nos. of manual octagonal maize sheller for reduction of drudgery to the farmers by use of improved agricultural tools and implements at 15 CD blocks and imparted training on utilization of the above small tools. • 972 nos. of knpsack sprayer were distributed to the farmers at 15 CD blocks and imparted training on utilization of the equipments. • Improved breeds of 450 nos. of piglets, 451 nos. of goats, 25 nos. of dairy cattle and 63603 nos. of chicks were distributed to 15 CD blocks and imparted training on scientific rearing of the above animal components for enhancing the livelihood of the tribal farmers in five NEH states. • Low cost pig sty, goatery shed was also constructed in 15 CD blocks for scientific rearing of the animal components. • Fish fingerings were also distributed for rearing at the newly constructed/renovated ponds at 15 CD blocks of the five NEH states. • Distributed 55 q of quality paddy seed variety CAU-R1 (<i>Tamphaphou</i>) at 15 CD blocks of five NEH states. • 7200 nos. of grafted Khasi mandarin were distributed at 6 blocks of Manipur and 3 blocks of Mizoram. Different quality seeds and planting materials of agricultural and horticultural crops were also distributed in 15 CD blocks of five NEH states.
2.	Sub-Project 2: Integrated Farming System for better employment and livelihood security for upliftment of tribal farmers by using bee-keeping, optimum use of land and water resources in the tribal areas	<ul style="list-style-type: none"> • One model Integrated Farming System demonstration farm was established at Ngwalwa village of Peren district, Nagaland to demonstrate and popularized the modern concept for a sustainable farming practice in rural set-up. • 25 nos. of portable sprinkler, 28 nos. of gravity fed drip irrigation system along with 21 nos. of 5 HP and 25 nos. of 3.5 HP diesel operated water pump sets were distributed at 15 CD blocks and imparted training on utilization of the above irrigation systems. • 19 nos. of continuous sealing band machine were also distributed at 15 CD blocks for wide scale utilization in value added products/processed products made from different agricultural and horticultural crops grown by the tribal farmers. • 170 nos. of Low Cost Poly House, 141 nos. of Low-cost Mushroom Houses and 179 nos. of Vermicomposting Units were constructed at 15 CD blocks.



Sl. No.	Name of the Subproject	Major Outcomes (10 bullets per subproject)
3.	Sub-Project 3: Capacity building of tribal farmers on advanced agricultural technologies among rural educated unemployed tribal youths of NEH states for entrepreneurial development	<ul style="list-style-type: none"> • Training programmes on cultivation of high value horticultural crops in polyhouse, mushroom production technology and vermicomposting technology was also conducted to beneficiary farmers. Earthworm species <i>Eisenia fetida</i> for vermicompost preparation was also distributed to the beneficiary farmers. • 10 nos. water ponds were construction/renovated at 15 CD blocks for assured irrigation source during lean period in rainfed areas and pisciculture/fish farming by the tribal farmers. • Training on scientific fish farming and efficient use of water resources for irrigating different agricultural and horticultural crops using different irrigation systems during the lean period was also conducted. • Imparted training on use and application of farmers friendly agricultural tools & implements and equipments for drudgery reduction. • Imparted training on scientific poultry farming and its disease management. • Imparted training on scientific production and management of dairy cattle, piggery and goatery. • Imparted training on scientific cultivation practices of major agricultural and horticultural crops for high return. • Development on management practices of crops, animals & fish through trainings & demonstrations on improved agricultural technologies to augment their income and livelihood. • Skill development for improving farm production and income generation, management of common agro-service centre and entrepreneurship development. • Exposure visits to different govt. & private farms to enable farmers from different regions to interact with and learn from each other and other experts, allowing them to view practical examples of successful integration of sustainable practices in farming communities like their own. • Demonstration on soil testing methods, use of different improved tools, implements and equipments was also conducted. • Training-cum-demonstration on value added products of different agricultural and horticultural crops was also conducted.

3.5.5. Direct quantifiable benefits to ST population

The improved agricultural production technologies along with quality seeds, planting materials, animal breeds, fish and improved agricultural tools and implements will enhance the production and productivity of tribal farmers. The intervention of agriculture and allied components like improved breeds of poultry, piggery, goatery, dairy cattle and fish fingerlings will double the farm income and support their livelihood.

To generate additional income and to develop entrepreneurship among the trained tribal farmers, they were provided with low-cost poly houses, mushroom houses and vermicompost pits.

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3.5.6. Details of beneficiary farmers

Sl. No.	State and District	CD Block	Individuals* (Number)	Families (Number)	Villages (Number)
1.	Arunachal Pradesh:				
	a. East Siang	Nari Koyu	120	120	7
	b. West Siang	Basar	115	115	6
	c. Upper Siang	Marying	76	76	2
2.	Manipur				
	a. Churachandpur	Churachandpur	193	193	5
	b. Chandel	Chandel	167	167	5
		Machi	195	195	5
	c. Ukhrul	Phungyar	95	95	5
	d. Senapati	Saikul	200	200	5
		Kangpokpi	212	212	5
3.	Meghalaya				
	a. Ri-Bhoi	Umsning	300	300	5
	b. West Garo Hills	Rongram	151	151	5
4.	Mizoram				
	a. Aizawl	Aizawl	856	856	32
	b. Kolasib	Thingdawl	1066	1066	10
	c. Mamit	Reiek	900	900	6
5.	Nagaland				
	a. Peren	Peren	1400	1400	5

* One individual from each family was selected as beneficiary.

3.5.7. Facilities Created

Sl. No.	Name	Location	Total Cost (Rs. in lakh)	Justification
1.	Low-cost Poly House	i) Nari Koyu ii) Basar iii) Marying iv) Churachandpur v) Chandel vi) Machi vii) Phungyar viii) Saikul ix) Kangpokpi x) Umsning xi) Rongram xii) Aizawl xiii) Thingdawl xiv) Reiek xv) Peren	176.78	To generate additional income, utilize resources judiciously and to develop entrepreneurship among the trained tribal farmers the farmers were provided with low-cost poly houses, mushroom houses, vermin-compost pits and construction/renovation of ponds.



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Sl. No.	Name	Location	Total Cost (Rs. in lakh)	Justification
2.	Low-cost Mushroom House	i) Nari Koyu ii) Basar iii) Marying iv) Churachandpur v) Chandel vi) Machi vii) Phungyar viii) Saikul ix) Kangpokpi x) Umsning xi) Rongram xii) Aizawl xiii) Thingdawl xiv) Reiek xv) Peren		
3.	Vermicompost Pit	i) Nari Koyu ii) Basar iii) Marying iv) Churachandpur v) Chandel vi) Machi vii) Phungyar viii) Saikul ix) Kangpokpi x) Umsning xi) Rongram xii) Aizawl xiii) Thingdawl xiv) Reiek xv) Peren		
4.	Construction/ Renovation of farm ponds and its lining	i) Nari Koyu ii) Basar iii) Marying iv) Churachandpur v) Chandel vi) Machi vii) Phungyar viii) Saikul ix) Kangpokpi x) Umsning xi) Rongram xii) Aizawl xiii) Thingdawl xiv) Reiek xv) Peren		

RESEARCH AND DEVELOPMENT

Glimpses of the activities performed under the Tribal Sub-Plan Project



Distribution of quality planting materials to the beneficiaries at College of Agriculture, CAU, Imphal, Manipur



Distribution of quality seeds materials to the beneficiaries at College of Agriculture, CAU, Imphal, Manipur



Distribution of quality planting materials to the beneficiaries at College of Agriculture, CAU, Imphal, Manipur



Training cum Awareness programme of Tribal Farmers at Kojiam Village, Machi Block, Manipur



Low cost mushroom house at Nari Koyu, East Siang, AP



Low cost polyhouse at Nari Koyu, East Siang, AP



Glimpses of the activities performed under the Tribal Sub-Plan Project



Distribution of dairy cattle to the beneficiaries at Nari Koyu, AP



Distribution of piglets to the beneficiaries at Nari Koyu, AP



Distribution of quality planting materials to the beneficiaries at Nari Koyu, AP



Distribution of fish fingerlings to the beneficiaries at Marying, AP



Distribution of piglets to the beneficiaries at College of Post graduate Studies, CAU, Umiam, Meghalaya



Distribution of goat to the beneficiaries at College of Post graduate Studies, CAU, Umiam, Meghalaya

RESEARCH AND DEVELOPMENT

Glimpses of the activities performed under the Tribal Sub-Plan Project



Distribution of vegetable seeds to the beneficiaries house at College of Post graduate Studies, CAU, Umiam, Meghalaya



Distribution of chicks to the beneficiaries at Umsning, Meghalaya



Capacity building of tribal farmers at College of Post graduate Studies, CAU, Umiam, Meghalaya



Construction of low cost Goatary shed at Ngwalwa Village, Peren, Nagaland



Distribution of dairy cattle to the beneficiaries at at Ngwalwa Village, Peren, Nagaland



Construction of low cost polyhouse with bamboo frame at Peren, Nagaland



4



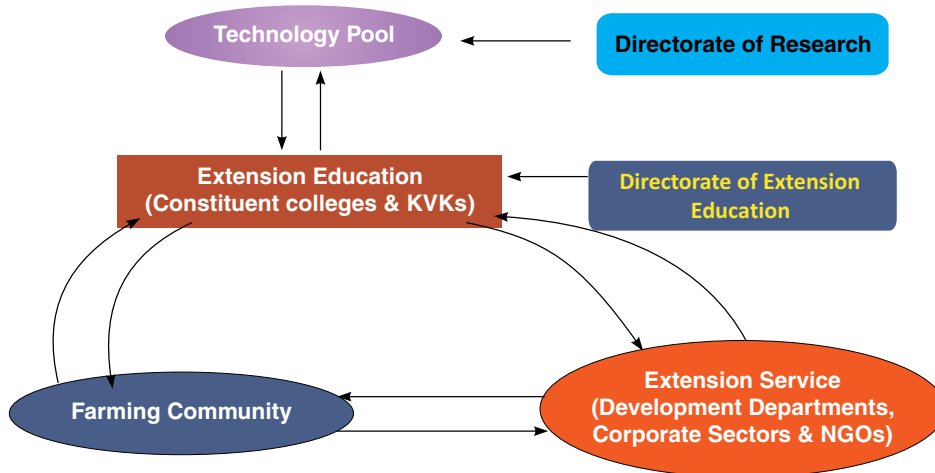
Extension Education



Extension education is an ever growing and continuous process to equip all the farmers, farm women and extension service agencies i.e. line departments of the states, NGOs and corporate sectors with the latest technologies in the field of agriculture and allied sectors. Further, extension system is concerned with the successful transfer of technologies to the farming community to increase productivity, employment and income generation. On the other side, it provides need-based feedback to influence the research, education and training module set up. Such education also forces the act of transferring innovation through proper education of the concerned personnel so that they are properly trained and the skills are acquired for conviction, action and adoption. Since the inception of organized extension programmes in the country. This system operates as a farmers' programme with the presence of scientists and extension educationists along with the support and initiative of the Government and non-government organizations. The system has to deal with the rural mass especially with

socio-economically weak farming community, which is large in size with either small or no landholdings and thus, massive in demand.

Although, agriculture as a whole is the state subject but being the origin centre of technologies, generation and refinement of need-based technologies through rigorous experimentation, training and elite demonstrations rests with educational/research institutions. Owing this responsibility, the Directorate of Extension Education, Central Agricultural University, Imphal deals with front line activities to disseminate agricultural know how and emphasizes over to get acquainted with the technologies among the farming communities for further adoption through different constituent colleges situated all over the North Eastern Region except Assam and with the help of three Krishi Vigyan Kendras at Imphal East, Andro (Manipur); Aizawl, Selesih (Mizoram) and East Siang, Pasighat (Arunachal Pradesh). The thematic function of agricultural universities for carrying out extension programmes in their jurisdiction is shown in the following figure:



Diagrammatic representation of Extension Education

EXTENSION EDUCATION

4.1 Training Programmes

4.1.1. Capacity building training programmes for extension functionaries

During the year 2016-17, the Directorate of Extension Education organized 9 (nine) training programmes in four states under the area jurisdiction of the University for capacity building of extension functionaries and to keep them updated with latest technical know-how in identified areas of agriculture and allied fields. The total beneficiaries were 218.

Table 4.1: Capacity building training programmes for extension functionaries

Sl. No.	Title of the Training	Place & Duration	No. of Benef.	Male	Female
1.	Production Technology on Pre-sowing of <i>Kharif</i> Rice under North Eastern Agro-climatic condition	CAU, Imphal during June 27-28, 2016	34	18	16
2.	Water Harvesting Technology and its Management for Rabi Crop	CAU, Imphal during July 29-31, 2016	27	9	18
3.	Conservation and Management of Microbial Resources for sustainable Agricultural Development	CAU, Imphal during August 22-23, 2016	22	10	12
4.	Recent advances in AH & transfer of husbandry technologies to the field	Vety. Sciences &A.H., Aizawl during January 3-4, 2016	23	14	09
5.	Use of ergonomics for drudgery reduction of women at work place	CHS, Tura during February, 15-17, 2017	17	08	09
6.	Pulse production technology towards nutrition security	CHS, Tura during February, 20-21, 2017	25	19	06
7.	Value addition of Jackfruit	CHS, Tura during March, 27-29, 2017	20	-	20
8.	Agroforestry for Natural Resource Management and Climate Change Mitigation	CHF, Pasighat, Arunachal Pradesh during February 22-24, 2017	27	19	08
9.	Sustainable Organic Production of Horticultural Crops : issues and strategies	CHF, Pasighat, Arunachal Pradesh during March 18-21, 2017	23	18	05
Grand Total			218	108	110



Capacity Building training programme on “Production Technology on Pre-sowing of kharif Rice under North Eastern Agro-climatic condition” during June 27-28, 2016 at CAU



Capacity Building training programme on “Water Harvesting Technology and its Management for Rabi Crop” during August 29-31, 2016 at CAU Imphal



Capacity Building training programme on “Conservation and Management of Microbial Resources for sustainable Agricultural Development” during December 22-23, 2016 at CAU Imphal

4.2 Capacity Building training programmes for farmers

The Directorate of Extension Education conducted 15 (fifteen) training programmes during 2016-17 to meet the needs of farmers and farm women in order to increase farm production and supplement the income in the field of agriculture and allied activities. The total beneficiaries were 729.

Table 4.2.1. Capacity Building training programmes for farmers

Sl. No.	Title of the Training	Place & Duration	No. Benef.	Male	Female
1.	Poultry Farming (On-campus)	CAU, Imphal on 27 th February, to 1 st March, 2017	48	39	09
2.	Agri and allied activities (Off-campus)	Moreh, Tengoupal, District on 25 th , April, 2016	52	43	09

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Sl. No.	Title of the Training	Place & Duration	No. Benef.	Male	Female
3.	Empowering of Disable People (Off campus)	Lamdeng Mayai Leikai, Imphal West, Manipur on 13 th May, 2016	35	22	13
4.	Mushroom Cultivation & Post Harvest Management (Off campus)	Haraorok, Imphal East, Manipur on 24 th June, 2016	31	31	-
5.	Organic Farming (Off campus)	Bishnupur, Manipur on 13 th July, 2016	80	75	05
6.	Organic Farming Campaign (Off campus)	Khangabok, Thoubal district, Manipur on 17 th August, 2016	48	29	19
7.	Scientific Rearing of Chicks (Off campus)	Kumbi, Bishnupur District, Manipur on 9 th September, 2016	34	16	18
8.	Tillage Scientific Cultivation of Rapeseed – Mustard (Off campus)	Kachikhul, Imphal West, Manipur on 29 th November, 2016	37	32	05
9.	Jai Kisan Jai Vigyan (On campus)	CAU, Imphal on 27 th December, 2016	51	49	28
10.	Tillage of Rapeseed Mustard Rice Fellow (Off campus)	Kachikhul, Imphal West, Manipur on 15 th February, 2017	41	31	10
11.	Pandit Deen Dayal Upadhaya Unnat Krishi Siksha Yojna for Farmers on Organic Farming/natural Farming/Cow Based Economy (Off campus)	Sanjenbam, Imphal East on 27 th February, 2017	30	12	18
12.	Agri and Allied Activities and Distribution of Planting Materials (Off campus)	Sangsabi, Imphal East, Manipur. on 10 th March, 2017	41	31	10
13.	Pandit Deen Dayal Upadhaya Unnat Krishi Siksha Yojna for Farmers on Organic Farming/natural Farming/Cow Based Economy (Off campus)	Haraorou, Imphal East, Manipur on 17-21, March, 2017	34	34	-
14.	Pandit Deen Dayal Upadhaya Unnat Krishi Siksha Yojna for Farmers on Organic Farming/Natural Farming/Cow Based Economy (Off campus)	Haraorou, Imphal West, Manipur on 17-21 March, 2017	32	32	-
15.	Pandeet Deen Dayal Upadhaya Unnat Krishi Siksha Yojna for Farmers on Organic Farming/Natural Farming/Cow Based Economy	Sambei, Imphal East on 26-30 March, 2017	31	31	-
Grand Total			729	593	136



Five days Awareness-cum-Training programme on “Pandit Deen Dayal Upadhyaya Unnat Krishi Yojna for Farmers on Organic Farming/Natural Farming/Cow Based Economy” held on March 26-30, 2017 at Sambei, Imphal East, District, Manipur



Five days Awareness-cum-Training programme on “Pandit Deen Dayal Upadhyaya Unnat Krishi Yojna for Farmers on Organic Farming/Natural Farming/Cow Based Economy” held on March 17-21, 2017 at Haraorou, Imphal East, District, Manipur



Three (3) Days Farmers’ Training Programme on ‘Poultry Farming’ during 27th February to 1st March, 2017 Sponsored by: ICAR-Agricultural Technology Application Research Institute (ATARI), Barapani, Meghalaya, Organized by: Directorate of Extension Education, Central Agricultural University, Imphal, Manipur

4.2.3 Farmers’ Fair participated

Sl. No.	Particulars	Date & Duration	Place	No. of Benef.	Male	Female
1.	CAU Regional Agriculture Fair	November 10-12, 2016 (3 days)	College of Agriculture, CAU, Imphal	4700	2753	1947

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Opening of Exhibition Stalls of NE Agri-Fair, 2016-17 by Minister of Agriculture & Farmers Welfare, Govt. of India at College of Agriculture, CAU, Imphal



Inaugural Function of NE Agri-Fair, 2016-17 at College of Agriculture, CAU, Imphal



Distribution of Chick (Giriraja) by Minister of Agriculture & Farmers Welfare, Govt. of India during Agri-Fair held at COA, CAU, Imphal on 10th September, 2016



Distribution of paddy seed (CAU R-1) by Minister of Agriculture & Farmers Welfare, Govt. of India during Agri-Fair held at COA, CAU, Imphal on 10th September, 2016



Visit of Exhibition Stalls by Minister of Agriculture & Farmers Welfare, Govt. of India during Agri-Fair held at COA, CAU, Imphal on 10th September, 2016



Distribution of Tree Bean Plants by Minister of Agriculture & Farmers Welfare, Govt. of India during Agri-Fair held at COA, CAU, Imphal on 10th September, 2016

4.2.4 Farmers' Field Day organized

Sl. No.	Particulars	Place and Date	No. of Beneficiaries	Male	Female
1.	Rapeseed-mustard Farmers' Field Day	Kachikhul, Imphal West District on February 15, 2017	77	49	28

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Farmers' Field Day on 15th February, 2017, at Kachikhul, Imphal West

4.3. Other Activities during 2016-17

- Annual Zonal Workshop of KVKs, 2015-16 during April 22-25, 2016 at Gangtok, Sikkim was attended by Directorate of Extension Education.

4.4. Publications during 2016-17



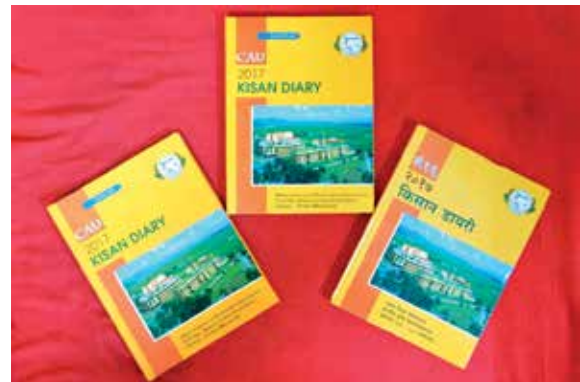
CAU Farm Magazine 2016-17 in different Languages



- **CAU Farm Magazine in different languages:**

English Version (four issues)	- Vol-6 (2), 6 (3), 6 (4) and 7 (1)
Manipuri Version (one issue)	- Vol-6 (4)
Mizo Version (one issue)	- Vol-6 (2)
Bengali Version (one issue)	- Vol-5 (1)
Khasi Version (one issue)	- Vol-6 (1)
Hindi Version (one issue)	- Vol-6 (3)

- Report on CAU Regional Agri-Fair, 2016-17
- Souvenir CAU Regional Agri-Fair, 2016- 17
- CAU Newsletter – 2017 Vol-1(4)
- Compendium: Water Harvesting Technology and its Management for *Rabi* Crops



CAU Kisan Diary 2017 in three languages

- CAU Calendar 2017
- CAU Kisan Diary 2017 (in three languages including English, Hindi & Manipuri).

4.5 Quality seeds produced & distributed

2400 kg seed of Rapeseed-Mustard was produced and distributed to the farmers and different agencies. In addition, three (3) KVKs of the University produced and distributed 3.7 tonnes of seeds of different field crops and 2,90,000 planting materials of different horticultural crops to the farmers.

4.6 Overseeing the activities of KVKs under Zone-III by Director of Extension Education, CAU, Imphal

During the period under report, Director of Extension Education, Central Agricultural University visited 19 (nineteen) nos. of KVKs situated in different States of North Eastern Region for monitoring and better performance of their activities.

4.7 Major Extension Activities of KVKs

Krishi Vigyan Kendras (KVKs) are innovative science based institutions which undertake



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vocational training of farmers, farm women and rural youths, conduct on-farm trials for technology assessment and refinement. Front line demonstrations are also organized by the KVKs to demonstrate the latest agricultural technologies to the farmers as well as extension functionaries of State Government/NGOs. Three Krishi Vigyan Kendras under CAU situated at Imphal East, Andro (Manipur), East Siang, Pasighat (Arunachal Pradesh) and Selesih, Aizawl (Mizoram) performed mandated activities during the period under report as under:

4.7.1. Trainings conducted by Krishi Vigyan Kendras under Central Agricultural University:

1. Trainings organized for farmers and rural youth

A) KVK, Aizawl, Selesih

Sl. No.	Broad Areas	On-Campus					Off-Campus				
		No. & categories of trainees					No. & categories of trainees				
		No. of Trg.	No. of Benef.	SC/ ST	OBC	Women	No. of Trg.	No. of Benef.	SC/ ST	OBC	Women
1.	Plant Protection	05	245	245	-	121	10	475	475	-	238
2.	Agronomy	03	95	95	-	42	08	207	207	-	71
3.	Fisheries	-	-	-	-	-	-	-	-	-	-
4.	Farm/Agril. Engg	04	140	140	-	82	06	243	243	-	80
5.	Vety. Sc. & A.H.	03	47	47	-	25	03	76	76	-	17
6.	Horticulture	03	122	122	-	70	06	243	243	-	80
7.	Home Science/ Women Empow- erment	01	35	35	-	17	10	152	152	-	112
Total		19	684	684	-	357	43	1396	1396	-	598

B) KVK, Imphal East, Andro

Sl. No.	Broad Areas	On-Campus					Off-Campus				
		No. & categories of trainees					No. & categories of trainees				
		No. of Trg.	No. of Benef.	SC/ ST	OBC	Women	No. of Trg.	No. of Benef.	SC/ ST	OBC	Women
1.	Plant Protection	-	-	-	-	-	02	59	-	39	21
2.	Agronomy	01	28	28	-	26	08	303	-	303	122
3.	Fisheries	-	-	-	-	-	05	138	-	59	76
4.	Farm/Agril.Engg	01	24	-	24	10	07	166	06	67	51
5.	Vety. Sc. & A.H.	-	-	-	-	-	-	-	-	-	-
6.	Horticulture	-	-	-	-	-	01	25	-	05	10
7.	Home Science/ Women Empow- erment	03	48	48	-	27	02	66	-	41	60
Total		05	100	76	24	73	25	757	06	514	340



c) KVK, East Siang, Pasighat

Sl. No.	Broad Areas	On-Campus					Off-Campus				
		No. of Trg.	No. of Benef.	SC/ ST	OBC	Women	No. of Trg.	No. of Benef.	SC/ ST	OBC	Women
1.	Plant Protection	05	156	156	-	106	18	1379	1379	-	666
2.	Fisheries	11	1052	1052	-	477	12	978	978	-	449
3.	Farm/Agril.Engg	05	153	153	-	79	09	470	470	-	227
4.	Vety Sc. & A.H.	10	386	386	-	288	17	959	959	-	518
5.	Horticulture	01	30	30	-	30	03	254	254	-	159
6.	Home Science/ Women Empow- erment	01	113	113	-	56	06	201	201	-	163
Total		33	1890	1890	-	1036	65	4241	4241	-	2182

4.7.2 Trainings organized for Extension Functionaries

A) KVK, Aizawl, Selesih

Sl. No.	Title	Date & Duration	No. of trainees		
			Male	Female	Total
1.	Household food security	January 7-9, 2017	2	5	7
2.	Productivity enhancement in field crops	January 23-25, 2017	0	17	17
3.	Integrated pest management	February 10-12, 2017	9	6	15
4.	Rejuvenation of old orchards	February 20-12, 2017	8	2	10
5.	Protected cultivation technology	March 3-5, 2017	11	9	20

B) KVK, Imphal East, Andro

Sl. No.	Title	Date & Duration	No. of trainees		
			Male	Female	Total
1.	Utilization of soybean for nutrition & income	October 13-16, 2016	28	2	30

C) KVK, East Siang, Pasighat

Sl. No.	Title	Date & Duration	No. of trainees		
			Male	Female	Total
1.	Oyster mushroom cultivation	July 12, 2016	3	20	23
2.	Aquaculture in Arunachal Pradesh	July 12, 2016	0	23	23
3.	Integrated Aquaculture cum-Horticulture	July 19, 2016	4	23	27
4.	Cultivation of Oyster Mushroom & processing	July 17-26, 2016	1	32	33

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Sl. No.	Title	Date & Duration	No. of trainees		
			Male	Female	Total
5.	Integrated Fish Farming	August 20, 2016	2	23	25
6.	Making of Soymilk and Soy paneer	August 24, 2016	0	30	30
7.	Recent advances in Aquaculture	March 8-10, 2017	5	22	27
8.	Pond construction technique & Method	March 8, 2017	7	19	26

4.8 On-farm Trials conducted

A) KVK, Imphal East (Andro)

Sl. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement	Recommendation for micro level situation
1.	Late and untimely sowing of rabi crops leading to lesser yield as field remain occupied by longer duration paddy varieties	Rice variety CAU-R2 (Tomthin-phou) Parents : CauveryXV20B Photo insensitive Duration : Main Kharif 95 days Plant Height : 85 cm Seed rate : 60kg/ha NPK : 60:40:30 kg/ha Yield potential: 4 ton/ha (Valley) Control: CAU-R3 Duration: 100 days (main Kharif) Plant height: 90 cm Seed rate: 60 kg/ha	Plant height = 88cm Number of tillers/plant = 9-12 nos. Number of grains/panicle= 160-200 nos Days to harvesting = 105 days Yield/ha = 4.8 t/ha	Short duration with higher yield and better taste and softness required to be developed.
2.	Shortage of suitable rabi pulses and varieties for crop intensification	Early maturity (110 days), heat tolerant variety, suitable for late sown situation. Resistant to wilt and has better milling quality, suitable for rice fallow in N.E. Yield potential: 19 q/ha Control: New Introduction	Plant height= 50 cm Number of branch/plant = 5.8 Number of pods/plant= 35	
3.	Non availability of high yielding field pea varieties suitable for the region	Crop-field pea Var-IPF 5-19 (Aman), Maturity 130 days, resistant to powdery mildew and rust & pod borer, suitable for both irrigated and rainfed condition Yield Potential : 22 q/ha	Plant ht - 48 cm No of branches/plant – 1.5 No of pods/plant – 7.5	



SI. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement	Recommendation for micro level situation
4.	Non utilization of soybean as milk and paneer	Milk extraction by hot method Preparation of soy paneer by addition of 2% citric acid Processing of curdled whey by using paneer Utilization of residue (Okara) into value added products	Acceptability of milk Accepted moderately with the hedonic scale of 7 Acceptability of tofu Slightly accepted with the hedonic score of 6 Extent of okara utilization Extensively utilized & highly accepted outlet, halwa, pokara, chop, bori, gulab jamun & animal feed BC ratio 1:5.1	Issued of beany flavor and soy milk and paneer needs to be tackle.
5.	Non availability of blended RTS beverage Need for popularization of blended RTS beverage	1. Blending of passion fruit juice with ginger @4:1, added sugar & KMS@0.1%	1. Acceptability - Score of 7 in hedonic scale (like moderately) 3. Cost Benefit Ratio = 1:3.13	-
6.	Low growth of normal Rohu (<i>Lebeo rohita</i>)	Stocking density- 20000 seed/ha Stocking ratio- Rohu-25% Silver carp-20%, Catla-20%, Grass carp-5%, Common Carp-15%, Mrigal-15% Feeding: MOC+RB+Pallet (1:1:1)	Survival: 65% Average growth: 72 gm Production: 46kg per (30 x 55 ft) pond size	Good quality fish seed is important for fish farming
7.	Low water use efficiency, soil moisture content, high weed-ing intensity	Drip irrigation under poly-mulch crop : Tomato var. <i>Amitabh 004</i> , Spacing 45cm x 45cm , Increasing water use efficiency and reduction in labour requirement in giving irrigation. Date of sowing : 19.11.16, Date of transplanting : 27.12.16	1. Water use efficiency 2. Yield /ha	Ongoing

B) KVK, East Siang (Pasighat)

SI. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement	Recommendation for micro level situation
1.	Low consumer preference of existing common carp and low growth of the carp.	Culture of AMUR CARP a breed released by Fisheries Research and Information Centre (Inland), Bangalore and Promoted by ICAR Research Complex for NEH Region, Umiam, Barapani, Meghalaya, for NE Region	% of mortality during transportation: 2% Average wt: 465 gm Survival rate: 82% Slaughter value 5.15% more than local	Good adaptability in different environment.

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Sl. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement	Recommendation for micro level situation
2.	Unhygienic method of fish preservation	Low cost Solar fish dryer	% Waste materials (Gills, Gut): 34-40% Time required for drying: 16 sun shine hrs % Quantity of dried fish 23-26% Maximum Temperature Recorded : 56°C Moisture reduction capacity: 61-65%	Hygienic and efficiency is more during sunny days.
3.	High drudgery, labour scarcity during peak season, high labour wages and high cost of transplanting	Manual paddy transplanter	1. Efficiency= 89.28% - 2. Field capacity = 0.05 (ha/hr) 3. Labour requirement = 32 (man-hr/ha) 4. Cost of transplanting= ₹ 3000/ha 5. Yield = 43q/ha 6. B.C ratio =1.47	
4.	Less marketability of fresh produce, high loss due to poor post harvest management	Solar Dryer (Polyhouse type)	1. Moisture content - (56 kg) IMC= 84% FMC= 6% 2. Temperature, Inside drying temp= 50°C Outside ambient temp = 27°C 3. Drying time = 16 hr. (6 hr/day) 4. Quality of dried product= Very good	
5.	Low productivity of local Upland rice varieties	Upland rice Variety CAU R-2	Yield: 20.4 q/ha	Crop maturity and harvesting should synchronize with locally grown cultivars



Sl. No.	Problem identified	Technologies selected for Assessment/ Refinement	Performance of the Technologies selected for Assessment/ Refinement	Recommendation for micro level situation
6.	High incidence of pod borer complex in Pigeonpea	IPM in pulses (Pigeonpea) Spraying of Imidacloprid 17.8% SL @ 1 ml/ 4 litre water at pre flowering stage and repeat spray with Monocrotophos 40 EC (0.04%) after 15 days interval.	Yield: 20.5 q/ha 20% reduction in pod borer complex infestation	Processing and inclusion in tribal food habit will encourage Pigeonpea farming.
7.	High infestation of Fruit fly in Cucurbits	Fruit fly management using MU Block @ 1 trap/ 10 m in cucurbits (bottle gourd)	45% reduction of fruit fly infestation.	Fruit fly Trap-innig index is high, but not efficient to manage infestation.
8.	High incidence of Citrus trunk borer	Performance of Sealer Cum Healer technology against Citrus Trunk Borer management. Plugging hole with Sealer Cum Healer paste and observation would be recorded at 30 Days interval.	Speedy Healing of bark. Sealing on hole is thrust/pushed back by larvae/ larval frass.	Compound be enriched with pesticide to kill borer larvae inside hole. Effective in early healing of damaged bark
9.	Crop introduction	Performance of marigold Var. Pusa Narangi	Loose flower size 2.3 cm diameter, 6-8 flower per plant, 15 q/ ha loose flower	Need market area
10.	Low yield of local variety	Cucumber Var. Swarna Sheetal	Average Yield 68.4 q/ha	Susceptible to water logging.
11.	High mortality rate under open condition due to heavy rainfall	Protected Cultivation of tomato under low cost Poly house	180 q/ha yield under poly house condition. Bigger size fruits, longevity high Compared to 117 q/ ha yield in traditional open condition	Develop design of Polyhouse suitable for high rainfall area
12.	Poor growth performance of local pig and non-availability of improve breed of pigs.	Large white Yorkshire cross breed	1. Average body weight gain in eight month: 54kg 2. Mortality: 13% 3. Age at first furrowing: - 4. Litter size: -	Though body weight gain is more than local breed it is still not gaining up to its mark
13.	Poor growth performance of local pig	Effect of Mineral Mixture Supplementation on performance of Pig	Average body weight gain in six month: 33kg	

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Sl. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement	Recommendation for micro level situation
14.	Non availability/ accessibility of variety in diet, water scarcity and house hold waste management	Feasibility of growing exotic vegetables (broccoli, cherry tomato, lettuce, red cabbage, chard, bok choy, arugula) in East Siang district condition	The farmers liked the cherry tomato for the sweet taste. Broccoli, chards, lettuce, red cabbage and bok choy were well accepted however, arugula for its strong smell the farmers did not like it	Need for popularization and awareness of exotic vegetables, its nutritional benefits and importance of variety in diet

C) KVK, Aizawl (Mizoram)

Sl. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement	Recommendation for micro level situation
1.	Low production of field pea	Seed rate: 70 kg/ha, Fertiliser dose: 30kg N, 60kg P ₂ O ₅ 20kg K ₂ O ha ⁻¹ Spacing: 30 cm row to row Hand weeding: 30 DAS	Pod Yield HUDP 15 1.8 t/ha Vikas 1.9 t/ha	Vikas & HUDP 15 both performs well though Vikas is better when compared to local and HUDP 15
2.	Poor grain yield due to weed infestation during vegetative growth and reproductive stages	Pre-emergenc: Atrazine @ 1kg /ha. Hand weeding: 25 DAS and at 45 DAS. Weedy check (No weeding).	Grain yield 3.2 t/ha Number of Cobs 2 Farmer's practice Grain yield 1.8 t/ha Number of Cobs 2	The yield is much higher when compared with the traditional farming system
3.	Water stress during rabi season & late sowing of crop	Seed rate: 8kg/ha 80kg N/ 120kg SSP/ 25kg MOP One weeding at 20 DAS	Demo Local Seed yield: 0.68 t/ha Seed Yield: 0.52 t/ha	Simple and efficient technology
4.	Fruit fly infestation	Management of fruit fly of Chow chow by methyl eugenol trap	Yield=174Q (L) = 233Q (D) fruit damage 43.99%(L) 13.1% (D)	Simple and efficient technology
5.	Infestation by chilli thrips	Management of chilli thrips by local EMFPE formulation	Yield= 176Q (L) = 239Q (D) Fruit damage 26.66 % (L) 10% (D)	Good technology



SI. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement				Recommendation for micro level situation
6.	Low Yield/Non Availability of High yielding Variety	Varietal Evaluation of Tomato, Arka Rakshak & Kashi Abhiman	Parameter	AR	KA	L	To have demonstration on large scale as FLD
			fruits /pt.	87	69	55	
			Fruit wt. (S)	70 g	80	65	
			Fruit wt./plant	6.0 kg	5.5	3.5	
7.	Low Yield/non availability of high yielding variety	Varietal performance of Onion var. ALR & Arka Krithiman (Hyb.)	Parameter	AK	ALR	L	To be test for pre kharif season for more production
			Bulb Girth (cm)	5.5	4.2	3	
			Bulb wt (g)	105	95	74	
			Yield Qt./ha	326	285	236	
8.	Water scarcity during lean season	Optimal irrigation scheduling in Tomato (Arka Rakshak) using gravity drip irrigation system (30 msq)	Parameter	Results			The Production increased from 60 kg to 150 kg. therefore though the initial implementation cost is high, the income is more
			Avg. Discharge:	2.1ltr/hr.			
			Production:	1.5q/30msq (150kg)			
			Inst. cost:	₹ 1,311			
			Cultivation cost:	₹ 820			
			Total cost:	2,131			
			Gross income:	150kg @ ₹ 30= ₹ 4,500			
9.	Lack of proper pressure irrigation systems for uniform distribution of water	WRM: Mini Sprinkle: Calibrated discharge 16-18 Lph. Spray Dia.: 3- 5 m	Parameter	Result		Lesser no. of sprinkler stake can cover greater area	
				D	L		
			Girth of bulb (cm)	5.9	3.0		
			Wght. Of bulb (g)	110	74		
			Yield (kg/50m ²)	44	30		
			Avg. Discharge (lph)	16.47	-		
			Field dia. (m)	2.8			
10.	Water scarcity, Less durability of LDPE liner	Refinement: Water harvesting structure, Jalkund using HDPE Geomembrane liner.	Parameter	Result		Harvested water are being used to irrigate vegetable crops (leafy Mustard, Onion, French Bean) using Drip or sprinkler system.	
			Durability (yrs.)	1 year Complete			
			Total Capacity (ltrs)	Avg. (27000 ltrs)			
			Effect. Capacity (ltrs)	Avg. (25000 ltrs)			
			B:C Ratio	1.8:1			
			Rate of water ₹ 9.00/- per litre.				
			Gross Retrn:	2,25000			
			Cost: 8940.00/-				
			Net Profit.: 16060/-				

EXTENSION EDUCATION

Sl. No.	Problem identified	Technologies selected for Assessment/Refinement	Performance of the Technologies selected for Assessment/Refinement			Recommendation for micro level situation
11.	Lack of awareness in processing of ginger	Processing of ginger for income generation (2.4 kg of Ginger is processed as candy.)	Parameters	Results		52.33% Income is increased from selling the product of processed ginger.
			Shelf life	Demo	Local	
				>6 mnth.	-	
			Cost Rs	1300	Nil	
			Gross re-returns	1928	Nil	
			Net returns	628	Nil	
B.C	0.48	Nil				
12.	Lack of awareness in processing of Amla	Home based preservation of amla for income generation (50 kg of amla is processed as candy)	Parameters	Result		31.66% Income is increased from selling the product of amla During the season i.e Oct – Jan they prepared 50 kg of Amla Candy and profit was Rs 15,250 /-
			Shelf life	Demo	Local	
				>6 mnth.	-	
			Cost	16750	Nil	
			Gross re-returns	32000	Nil	
			Net returns	15250	Nil	
B.C.	0.91	Nil				

4.9 Front Line Demonstrations conducted

A) KVK, Imphal East (Andro)

Sl. No.	Title of FLD	Technology Demonstrated	No. of farmers	Area (ha)/ No. of Livestock/ Demo	Demo yield (q/ ha)	Increase in Yield (%)	B.C. Ratio
1.	Rice (SRI)	Crop production	11	10.00	72.3	28.64	1.84
2.	Rice (ICM)	Integrated crop management	04	2.00	68.7	25.36	1.77
3.	Use of reaper in paddy	Paddy harvester	03	3.00	-	433%	2.57
4.	Use of six row tractor drawn zero till seed drill in rapeseed	Zero tillage cultivation	06	5.00	-	75%	2.30
5.	Eight row tractor drawn zero till seed drill in wheat	Wheat Var. PBW-343 in zero tillage cultivation	06	3.00	-	128%	1.90



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Sl. No.	Title of FLD	Technology Demonstrated	No. of farmers	Area (ha)/ No. of Livestock/ Demo	Demo yield (q/ha)	Increase in Yield (%)	B.C. Ratio
6.	Two row animal drawn zero till seed drill in rapeseed	Rapeseed Var. M27 in zero tillage cultivation	02	0.25	12 kg/ha (Seed rate)	25%	-
7.	Revolving milking stool and stand in milch animals	Performance of milking	05	05	Psychological fear of spilling the milk due to kicking by the animal is greatly reduced	Psychological fear of spilling the milk due to kicking by the animal is greatly field	-
8.	Charcoal briquette cake	Used of charcoal briquette cake in cooking	06	06	Residue in the form of ash	Residue in the form of coarse cake	2.40
9.	Paddy-cum-fish culture	Integrated farming system	03	03	Paddy yield -69 q/ha Fish yield-348 kg/ha	Additional yield of fish	-

B) KVK, East Siang, Pasighat (Arunachal Pradesh)

Sl. No.	Title of FLD	Technology Demonstrated	No. of farmers	Area (ha)/ No. of Livestock/ Demo	Demo yield (q/ha)	Increase/decrease in Yield (%)	B.C. Ratio
1.	Varietal evaluation	Varietal evaluation in maize	12	5.0	68.30	8.25	1.42
2.	Varietal evaluation	Varietal evaluation in rice	50	50.0	56.30	9.70	1.34
3.	Seed production	Rice seed production	01	1.0	54.30	-	-
4.	Varietal evaluation	Varietal evaluation in toria	75	30.0	6.20	21.56	1.53
5.	IPM	IPM in rice	20	8.0	51.30	14.50	1.28
6.	IDM	IDM in ginger	04	2.0	119.60	29.70	2.32
7.	Fruit drop	Fruit drop management in citrus	10	3.0	-	53.35 reduction	2.06
8.	Varietal evaluation	Varietal evaluation in tomato	10	1.0	126.20	20.50	1.89

EXTENSION EDUCATION

Sl. No.	Title of FLD	Technology Demonstrated	No. of farmers	Area (ha)/ No. of Live-stock/ Demo	Demo yield (q/ha)	Increase/decrease in Yield (%)	B.C. Ratio
9.	Varietal evaluation	Varietal evaluation in brinjal	10	2.0	117.40	22.90	1.90
10.	Varietal evaluation	Varietal evaluation in Chilli	10	1.0	50.40	21.40	2.41
11.	Field pea	Scientific cultivation of field pea	50	20.0	9.20	26.02	1.52
12.	Soybean	Value addition in soybean	30	-	-	-	-

C) KVK, Aizawl, Selesih (Mizoram)

Sl. No.	Title of FLD	Technology Demonstrated	No. of farmers	Area (ha)/ No. of Live-stock/ Demo	Demo plot yield (q/ha)	Increase in Yield (%)	B.C. Ratio
1.	INM	INM in soybean	20	1.0	7.50	36.36	1.74
2.	Disease management	Disease management in ginger	10	1.0	53.00	43.24	2.00
3.	Pest management	Pest management in cabbage	10	1.0	234.00	25.13	2.22
4.	Orchard rejuvenation	Orchard rejuvenation in khasi mandarin	05	1.5	115.00	48.60	1.45
5.	INM	INM in broccoli	05	1.0	162.00	22.80	2.50
6.	WRM	WRM in broccoli	05	0.1	0.80	30.20	2.70

4.10 Special Farmers Welfare Oriented Programmes

(A) Unnat Bharat Abhiyan/Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojna: This special, innovative and farmers welfare oriented programme has been sponsored by Ministry of Agriculture & Farmers' Welfare, Govt. of India since the year 2016-17. During the year (up to 31st March, 2017), skill oriented trainings were organized in four states of the region i.e., Manipur, Meghalaya, Mizoram and Tripura. The brief achievement under this massive programme is as under:

Sl. No.	Venue	Dated & Duration	No. of Trainees				Total	
			Male	Female	SC/ST	OBC		Gen.
Manipur								
1.	Haraorou, Imphal East	March 17-21, 2017	34	-	-	10	24	34
2.	Sambei, Imphal East	March 17-21, 2017	32	-	-	09	23	32
3.	Haraorou, Imphal East	March 26-30, 2017	12	18	-	20	10	30



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Sl. No.	Venue	Dated & Duration	No. of Trainees					Total
			Male	Female	SC/ST	OBC	Gen.	
4.	Sambei, Imphal East	March 26-30, 2017	31	-	-	13	18	31
Meghalaya								
1.	CPGS, Umiam	March 16-20, 2017	30	-	30	-	-	30
2.	CPGS, Umiam	March 21-25, 2017	23	8	31	-	-	31
3.	CPGS, Umiam	March 21-25, 2017	28	2	25	2	1	30
4.	CPGS, Umiam	March 27-31, 2017	23	7	30	-	-	30
5.	CPGS, Umiam	March 27-31, 2017	18	16	34	-	-	34
Mizoram								
1.	Teperighat, Lunglei	March 7-11, 2017	25	05	30	-	-	30
2.	Selesih, Aizawl	March 14-18, 2017	22	09	31	-	-	31
3.	Selesih, Aizawl	March 21-25, 2017	20	13	33	-	-	33
4.	Selesih, Aizawl	March 27-31, 2017	19	11	30	-	-	30
Tripura								
1.	College of Fisheries, Agartala	March 20-24, 2017	19	05	18	05	01	24
2.	College of Fisheries, Agartala	March 23-27, 2017	20	02	22	-	-	22
3.	College of Fisheries, Agartala	March 25-29, 2017	26	04	25	01	04	30
4.	Kalyan Ashram, Gombi	March 27-31, 2017	30	-	25	02	03	30
5.	Kalyan Ashram, North Tripura	March 27-31, 2017	24	06	27	-	03	30

(B) Farmers FIRST Programme: This innovative project has been sanctioned by ICAR to CAU, Imphal vide letter No. ICAR/ATARI/41/Farmers FIRST (Umiam) 2016/416, dated: 15/02/2017 with an initial budget of Rs.22.69 lakh.

● **Scientists/Officers involved:**

1. Prof. Ph. Ranjit Sharma, Deptt. of PBG, College of Agriculture, Imphal, Principal Investigator.
2. Dr. Th. Robindro Singh, Dy. Director of

Research, Co-PI.

3. Dr. Angad Prasad, Dy. Director of Extension Education, Co-PI.
4. Dr. Th. Renuka Devi, Associate Professor (PBG), College of Agriculture, Imphal, Co-PI.
5. Dr. M. Sumarjit Singh, Associate Professor (Agron.), College of Agriculture, Imphal, Co-PI.
6. Dr. M. Norjit Singh, Assistant Professor (Ani. Science), College of Agriculture, Imphal, Co-PI.

EXTENSION EDUCATION

- **Site selected:** Yairipok Yambem & Top Chingtha, Imphal East have been selected in the initial phase.
- **Activities undertaken:**
 - (a) Farmers scientists interaction on 20-02-2017.
 - (b) Two Awareness-cum-PRA were exercised based on crops, livestock, fisheries & Horticulture components during Feb. 21-22, 2017.
 - (c) Training programmes on cultivation of first crop (paddy) was organized on 24-02-2017 at College of Agriculture, CAU, Imphal and 25 rice growing progressive farmers to part.
 - (d) CAU R-2, a high yielding rice variety seed was distributed to the farmers under the programme on 24-02-2017 by Hon'ble Vice Chancellor, CAU, Imphal.

4.II Module wise proposed action plan for the year 2017-18

i) Crop Based module:

1. Quality seed production of CAU R-1, CAU R-2, CAU R-3 and CAU R-4. The University rice varieties to be produced at the selected sites of the selected village in participatory mode.
2. Quality seed production of lentil var. PL-4076, lathyrus var. BIO-L-212 at both the selected Area to be undertaken.
3. Location specific demonstration on cultivation of groundnut var. ICGS-76 and soybean var. RKS-18.
4. Demonstration on the large cultivation of mustard var. NRCHB-101, YSH-401 and PM-28 (zero tillage cultivation after rice) at Top Chingtha village.
5. Zero tillage cultivation of pea in rice

fallows at Yambem village.

ii) Horticulture based module:

1. Plug tray nursery raising of improved varieties of vegetables (tomato, cabbage, cauliflower).
2. High density plantation of banana at Yambem village.
3. High density plantation of pineapple at Top Chingtha village.
4. Production of virus free 'U-morok' (giant chilli) using low cost polyhouse.

iii) Livestock and fish based module:

1. Distribution of improved breeds of pigs at both the selected villages.
2. Fish cum Horticulture (cultivation of arrowhead vegetable) cum cultivation of aromatic spices of Manipur.
3. Improved health care of pigs and poultry at both the selected village.
4. Fish cum livestock Integrated Farming system.

iv) Enterprise based module:

1. Entrepreneurial Motivation Training.
2. Promotion of Agri-Horticulture enterprise (like value added products of pineapple, ginger, turmeric, local amla etc.)
3. Vocational Training on raising nursery of fruit plants.

v) Natural resource management (NRM) based module:

1. Demonstration on integrated nutrient management (INM) on the cultivation of paddy, pulses and oilseeds.
2. Demonstration on rain water harvesting and efficient use of water (drip irrigation, sprinkler etc.)
3. Processing and packaging of agri-products for enhancing shelf-life.



One day training programme on cultivation of First Crop of Paddy held on February 24th, 2017 at CAU, Imphal



Input distribution held on Feb. 24th, 2017 at CAU, Imphal with Prof. M. Premjit Singh, Hon'ble Vice-Chancellor, CAU, Imphal



Inaugural Function of Farmers FIRST programme held on 25th March, 2017 at College of Agriculture, CAU, Imphal



Inaugural Function of Farmers first programme held on March 30, 2017 at College of Agriculture, CAU, Imphal



One Day Awareness-Cum-Training Programme held on 25th March, 2017 at College of Agriculture, CAU, Imphal



(C) Mera Gaon Mera Gaurav (MGMG):
This special programme has been launched during the year 2016-17 in different constituent colleges and 3 (three) KVKs of the University. The salient achievements under this programme are as under:

- (a) College of Post Graduate Studies, CAU, Barapani, Meghalaya**
- Twenty two (22) villages have been selected. Four teams of scientists comprising of 26 individuals have been involved to handle the programme.

EXTENSION EDUCATION

- Eighteen (18) nos. of extension activities – method demonstration, interface meetings, training programmes, field day etc. were conducted to transfer the beneficial and useful technologies among the farming communities of the State.
 - Altogether, 1414 nos. of farmers have been benefited during the year under this massive programme.
- (b) College of Fisheries, CAU, Agartala, Tripura**
- Two (2) villages have been taken up. A team of scientists comprising of eight individuals have been involved to handle the programme.
 - Seven (7) nos. of extension activities viz. analysis of soil and water samples, demonstration, interface meetings, training programmes, field day etc. were conducted to transfer the beneficial and useful technologies among the farming communities of the State.
 - Altogether, 120 nos. of fish farmers have been benefited during the year under this massive programme.
- (c) College of Agril. Engg. & PHT, CAU, Gangtok, Sikkim**
- Four (4) villages have been taken up. Four teams of scientists comprising of sixteen individuals have been involved to handle the programme.
 - Programme has been initiated and results will be seen in the ensuing year.
- (d) College of Home Science, CAU, Tura, Meghalaya**
- Two (2) villages have been taken up. A team of scientists comprising of sixteen individuals have been involved to handle the programme.
- Six (6) nos. of extension activities-on farm varietal trials of CAU R-1 and CAU R-2, demonstration, training programmes etc. were conducted to transfer the beneficial and useful technologies among the farming communities of the State.
 - Altogether, 128 nos. of farmers and farm women have been benefited during the year under this massive programme.
- (e) College of Vety. Sciences & A.H., CAU, Aizawl, Mizoram**
- Forty seven (47) villages have been taken up. Twelve teams of scientists comprising of forty seven individuals have been involved to handle the programme.
 - Twenty three (23) nos. of extension activities-distribution of livestock, construction of pigsties at farmers level, distribution of agricultural inputs, distribution of saplings, construction of mushroom unit, polyhouse, vermi-compost unit, demonstration, training programmes etc. were conducted to transfer the beneficial and useful technologies among the farming communities of the State.
 - Altogether, 2352 nos. of farmers and farm women have been benefited during the year under this massive programme.
- (f) College of Agriculture, CAU, Imphal, Manipur**
- Five (5) villages have been taken up. Six teams of scientists comprising of twenty four individuals have been involved to handle the programme.
 - Four (4) nos. of extension activities-awareness programme, distribution of agricultural inputs, distribution of vegetable seeds and analysis of soil and water samples etc. were taken up



to transfer the beneficial and useful technologies among the farming communities of the State.

- Altogether, 75 nos. of farmers and farm women have been benefited during the year under this massive programme.

(g) Krishi Vigyan Kendra, CAU, Imphal East, Andro

- Eight (8) villages have been taken up. Two teams of scientists comprising of seven individuals have been involved to handle the programme.
- Five (5) nos. of extension activities-awareness programme, training, demonstration, vermi-composting, farm visit etc. were conducted to transfer the beneficial and useful technologies among the farming communities of the State.
- Altogether, 788 nos. of farmers and farm women have been benefited during the year under this massive programme.

(h) Krishi Vigyan Kendra, CAU, Aizawl, Selesih

- Six (6) villages have been taken up. Two teams of scientists comprising of six individuals have been involved to handle the programme.
- Nine (9) nos. of extension activities-

training, demonstration, meeting, mobile based advisory, support by extension literature, distribution of seeds and other inputs, general awareness and inter-organizational cooperation etc. were conducted to transfer the beneficial and useful technologies among the farming communities of the State.

- Altogether, 733 nos. of farmers and farm women have been benefited during the year under this massive programme.

(i) Krishi Vigyan Kendra, CAU, East Siang, Pasighat

- Two (2) villages have been taken up. Two teams of scientists comprising of six individuals have been involved to handle the programme.
- Nine (9) nos. of extension activities-Field visit, kishak sammelan, training, demonstration, meeting, mobile based advisory, support by extension literature, distribution of seeds and other inputs, general awareness etc. were conducted to transfer the beneficial and useful technologies among the farming communities of the State.
- Altogether, 3475 nos. of farmers and farm women have been benefited during the year under this massive programme.

4.12 Details of Projects carried out by Directorate of Extension Education during 2016-17

Sl. No.	Name of the Project	Sanctioning Year	Sponsoring Organization
1.	Sustainable Livelihood Development of Farmers in Manipur through Participatory Technology Application	2017	ICAR, ATARI, Umiam, Barapani
2.	Integrated Beekeeping Development Centre (IBKDC) under Centre of Excellence (COE)	2017	National Bee Board, New Delhi
3.	Assistance to the Tribal Farmers of Manipur for Income Generation & Livelihood Security	2016	ICAR, IGFRI, Jhansi
4.	Augmenting Rapeseed-Mustard Production of Tribal Farmers of NE State for Sustainable livelihood Security	2016	DRMR, Bharatpur, Rajasthan

4.13 Significant achievements

- Mahindra Samriddhi India Agri Award-2017 (National Award) has been conferred to the Central Agricultural University, Imphal by Mahindra and Mahindra Co. Ltd. in recognition for its purposeful and noteworthy contribution to the field of agriculture, having a positive impact on the farming communities, thus enabling them to rise through successful large scale demonstration on “Zero tillage cultivation of rapeseed-mustard with bee pollination and non-chemical method of plant protection” in more than 1000 ha in rice fallow.
- Dr. Daulat Singh Memorial Extension Education Excellence Award-2017 has been conferred to the Vice-Chancellor, CAU, Imphal, Prof. M. Premjit Singh by Society of Extension Education, Agra for his outstanding contribution in the field of Teaching Research and Extension Management.
- Best Paper Presentation Award-2017 has been conferred to Dr. Mahesh Pathak, Senior Scientist & Head, KVK, East Siang in National Conference on Horticulture in NE Region Organized by College of Horticulture & Forestry, Pasighat.
- Pandit Deen Dayal Upadhyay Rashtriya Krishi Vigyan Protsahan Puraskar-2016 (Zone-IV) has been conferred to KVK, East Siang, Arunachal Pradesh by ICAR, New Delhi.
- Best Exhibition Stall Award at Krishi Unnati Mela-2017 has been conferred to KVK, East Siang, Arunachal Pradesh by ICAR, New Delhi
- One thousand hectare area in three states – Manipur, Meghalaya and Arunachal Pradesh has been covered for 2500 on-farm demonstrations for quick adoption of Rapeseed-Mustard cultivation among the tribal farmers for improving their livelihood and increase the cropping intensity. This is a TSP Project sponsored by DRMR, Bharatpur.
- For ensuring nutritional security among the farmers of Manipur, 1,00,000 saplings of fruits crops are being distributed with the financial support from Ministry of Agriculture & Farmers Welfare. Till 31st March, 2017, 40,000 nos. of saplings of Guava, Papaya, Citrus (Kachai Lemon), Orange, Jackfruit, Treebean and Amla have been distributed to the farmers.



5



Human Resource Development



INSPITE of its remoteness and other location related disadvantages, the university maintained excellent academic environment in its constituent college campuses for professional success of the students. The comfortable staff per student ratio creates an engaged and interactive teaching environment. University encourages

and supports all the faculty members and staffs to attend trainings, conferences, seminars and workshops at national and international levels. Each constituent college arranges distinct on-campus and off-campus trainings of common interests by inviting experts from within and outside the University.

5.1 Staff Details of Univeristy

Table 5.1 Staff details of Central Agricultural University, Imphal

Sl. No.	Particulars	Administrative	Teaching	Non-Teaching		Total
				Technical	Non-technical	
1.	CAU Headquarters, Imphal, Manipur	11	-	29	84	121
2.	College of Agriculture, Iroisemba, Imphal, Manipur	02	40	40	56	138
3.	College of Post-Graduate Studies, Umiam, Meghalaya	01	31	21	40	93
4.	College of Agriculture, KyrdemKulai, Meghalaya	-	02	-	-	02
5.	College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim	02	29	35	58	124
6.	College of Horticulture, Bermiok, Sikkim	-	05	-	-	05
7.	College of Fisheries, Lembucherra, Tripura	02	23	33	46	104
8.	College of Horticulure & Forestry, Pasighat, Arunachal Pradesh	01	41	45	53	140
9.	College of Agriculture, Pasighat, Arunachal Pradesh	-	05	-	-	05
10.	College of Veterinary Sciences & Animal Husbandry Selesih, Aizawl, Mizoram	01	51	45	68	165
11.	College of Home Science, Tura, Meghalaya	01	18	30	47	96
12.	College of Horticulture Thenzawl, Mizoram	-	07	-	-	07

HUMAN RESOURCES DEVELOPMENT

Sl. No.	Particulars	Administrative	Teaching	Non-Teaching		Total
				Technical	Non-technical	
13.	College of Food Tech, Imphal, Manipur	-	06	-	-	06
14.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	01	12	01	01	15
Grand total		22	270	279	450	1021

5.2 New Appointments

Table 5.2 List of new appointed employees

Sl. No	Name of Employee	Designation	Date of Appointment	Date of Joining
1. CAU Headquarters				
1.	Dr. Th. Robindro Singh	Deputy Director of Research	07/10/16	10/10/16
2.	Dr. Y. Ranjana Devi	Deputy Director of Instruction	07/10/16	20/10/16
3.	Dr. Y. Bedajit Singh	Deputy Director of Instruction	07/10/16	19/10/16 (A.N.)
4.	Dr. A.K. Mishra	Deputy Director of Research	06.12.16	02/02/17 (A.N.)
5.	Dr. M. Dinachandra Singh	Deputy Registrar (Academic)	07/10/16	10/10/16
6.	Shri L. Basanta Singh	Deputy Registrar (Establishment.)	07/10/16	07/11/16
2. College of Agriculture, CAU, Imphal				
1.	Dr. E.V.D. Sastry	Professor	06/06/2016	16/08/2016
2.	Dr. Th. Renuka Devi	Associate Professor	06/06/2016	25/06/2016
3.	Dr. M. Norjit Singh	Assistant Professor	06/06/2016	02/07/2016
4.	Shri L. Meghachandra Singh	Students Welfare Officer	06/06/2016	08/06/2016
5.	Shri A. Romesh Singh	Computer Operator	04/06/2016	06/04/2016
3. College of Post Graduate Studies, Umiam, Meghalaya				
1.	Dr. N.B Singh	Dean	12/04/2016	02/05/2016
2.	Dr. V.K Chowdhury	Chairman	27/04/2016	05/05/2016
3.	Dr. K. Mamocha Singh	Professor	27/04/2016	29/05/2016
4.	Dr. Jitendra Kr. Chauhan	Professor	22/04/2016	26/04/2016
5.	Dr. Pradip Kr. Bora	Professor	27/04/2016	02/05/2016
6.	Dr. Kamal Kumar Datta	Professor	27/04/2016	07/05/2016(AN)
7.	Dr. R. K Tombisana Devi	Professor	27/04/2016	16/05/2016
8.	Dr. N. S Azad Thakur	Professor	02/08/2016	04/08/2016
9.	Dr. K. Noren Singh	Professor	05/12/2016	15/12/2016
10.	Dr. P. Balasubramanian	Professor	27/04/2016	20/05/2016



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Sl. No	Name of Employee	Designation	Date of Appointment	Date of Joining
11.	Dr. L. Hemochandra Singh	Associate Professor	27/04/2016	02/05/2016
12.	Dr. Binodini Sethi	Associate Professor	27/04/2016	16/05/2016(AN)
13.	Dr. Sanjay Swami	Associate Professor	27/04/2016	08/05/2016
14.	Dr. Anju Choudhury	Assistant Professor	27/04/2016	30/04/2016
15.	Dr. Kennedy Ningthoujam	Assistant Professor	27/04/2016	05/05/2016(AN)
16.	Dr. Nibedita Borgohain	Assistant Professor	27/04/2016	06/05/2016
17.	Dr. L. Dhanabati	Student Welfare Officer	27/04/2016	30/04/2016(AN)
18.	Smt. H. Supriya Devi	Farm Assistant	04/06/2016	06/06/2016
19.	Smt. S. Memtombi Devi	Medical Attendant	12/04/2016	21/04/2016
4. College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram				
1.	Ms. Bidyabati Devi	Medical Attendant	12/04/16	27/04/16
2.	Ms. L. Colney	-do-	04/06/16	21/06/16
5. College of Agricultural Engineering and Post Harvest Technology, Ranipool, Sikkim				
1.	Dr. S. N. Yadav	Professor	03/05/2016	03/05/2016 (AN)
2.	Dr. Sujata Jena	Associate Professor	03/05/2016	03/05/2016 (AN)
3.	Dr. Deepak Jhajharia	Associate Professor	03/05/2016	25/05/2016
4.	Er. Sujeet Kr. Chauhan	Assistant Professor	03/05/2016	04/05/2016
5.	Dr. A. Anuradha Devi	Assistant Professor	03/05/2016	07/05/2016
6.	Dr. M. Chanchan	Assistant Professor	03/05/2016	07/05/2016
7.	Er. Ngangkham Devarani	Assistant Professor	03/05/2016	23/05/2016
8.	Dr. S. P. Pandharinath	Assistant Professor	03/05/2016	23/05/2016 (AN)
9.	Er. Rajiv Pradhan	Assistant Professor	03/05/2016	27/05/2016
10.	Dr. Srikanta Kr. Meher	Assistant Professor	03/05/2016	02/06/2016
11.	Dr. Ghanashyam Singh Y.	Assistant Professor	03/05/2016	20/07/2016
12.	Mrs T. Loidang Chanu	Assistant Professor	05/10/2016	17/10/2016
13.	Shri M. Sanju Singh	Student Welfare Officer	03/05/2016	06/05/2016
6. College of Home Science, Tura, Meghalaya				
1.	Dr. R. Aimol	Associate Professor	07/10/16	13/10/16
2.	Ms. Ch. Basanti Devi	Assistant Professor	07/10/16	04/11/16
3.	Ms. R.K. Dhanalakshmi Devi	-do-	07/10/16	24/10/16
4.	Shri Jawaid Ashraf	-do-	07/10/16	28/12/16
5.	Ms. T. Premlata Devi	Computer Operator	06/04/16	23/04/16
6.	Jocica L. B	Library Assistant	06/04/16	18/04/16
7.	Ms. H. Priya Devi	-do-	06/04/16	30/04/16

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Sl. No	Name of Employee	Designation	Date of Appointment	Date of Joining
8.	Rayan K. Marak	Livestock/Farm Assistant	06/04/16	16/04/16
9.	Cassandra Haris Ch. Marak	-do-	06/04/16	16/04/16
10.	T.T. Sangma	Field-cum-Lab. Assistant	06/04/16	03/05/16
11.	Rashmi Hajong	-do-	06/04/16	03/05/16
12.	Panthing C. Marak	Carpenter	06/04/16	12/04/16
13.	Ms. N. Fimate	Medical Attendant	06/04/16	21/04/16
14.	D. Hajong	Security Guard	06/04/16	25/04/16
15.	Thomas M	Multi Tasking Staff	06/04/16	12/04/16
16.	Jacob R. Marak	-do-	06/04/16	12/04/16
17.	Gloritha Ch. Momin	-do-	06/04/16	18/04/16
18.	Rita G. Momin	-do-	06/04/16	19/04/16
19.	Namal Kalita	-do-	06/04/16	27/04/16
20.	Mohan Barua	-do-	06/04/16	12/04/16
21.	Suchi Ch. Sangma	-do-	06/04/16	12/04/16
22.	Pillo N. Marak	-do-	06/04/16	12/04/16
23.	S. Ch. Momin	-do-	06/04/16	27/04/16
7. College of Fisheries, Lembucherra, Tripura				
1.	Dr. Arun Bhai Patel	Professor	07/10/2016	11/10/2016
2.	Dr. Rani Dhanze	Professor	07/10/2016	17/10/2016
3.	Dr. Mrinal Kanti Datta	Associate Professor	07/10/2016	11/10/2017
4.	Dr. Sagar Chandra Mandal	Associate Professor	07/10/2016	11/10/2016
5.	Dr. Naresh Kumar Mehta	Assistant Professor	07/10/2016	22/10/2016
6.	Shri Tanmoy Gon Choudhury	Assistant Professor	07/10/2016	01/12/2016
7.	Ms. Kh. Shantibala Devi	Medical Attendant	03/05/2016	10/05/2016
8. College of Horticulture & Forestry, Pasighat, Arunachal Pradesh				
1.	Dr. Pranabjyoti Sharma	Associate Professor	22/06/2016	22/06/2016
2.	Dr. Chandra Deo	Associate Professor	23/06/2016	23/06/2016
3.	Mr. Lukram Shantikumar	Assistant Professor	10/06/2016	10/06/2016
4.	Dr. Kalkame Ch. Momin	Assistant Professor	13/06/2016	13/06/2016
5.	Dr. N. Surmina Devi	Assistant Professor	15/06/2016	15/06/2016
6.	Dr. Shivani Dobhal	Assistant Professor	20/06/2016	20/06/2016
7.	Mrs. Ps. Mariam Anal	Assistant Professor	27/06/2016	27/06/2016
8.	Dr. Rubee Lata	Assistant Professor	27/06/2016	27/06/2016
9.	Mr. Yumnam Oken Singh	Assistant Professor	02/07/2016	02/07/2016



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Sl. No	Name of Employee	Designation	Date of Appointment	Date of Joining
10.	Mr. Nongthombam Devachandra	Assistant Professor	02/07/2016	02/07/2016
11.	Mr. Archan Rabha	Horticulture Assistant	04/04/2016	04/04/2016
12.	Mrs. Simpi Dutta	Computer Operator	04/04/2016	04/04/2016
13.	Mr. Maryom Ringu	Live Stock Assistant	04/04/2016	04/04/2016
14.	Mr. Daniel Kakki	Live Stock Assistant	06/04/2016	06/04/2016
15.	Mrs. Annu Taloh	Live Stock Assistant	19/04/2016	19/04/2016 (AN)
16.	Mr. Nabin Kumar Mahato	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
17.	Mr. Promod Kumar Pandey	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
18.	Mr. Arun Kumar Singh	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
19.	Ms. Jayashree Mohanty	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
20.	Mr. Santosh Gupta	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
21.	Ms. Sudipta Bhowmik	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
22.	Ms. Reema Longjam	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
23.	Mr. Katon Kartek	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
24.	Mr. Amon Sangma	Field-Cum-Lab Assistant	04/04/2016	04/04/2016
25.	Mr. Kumar Chetri	Field-Cum-Lab Assistant	06/04/2016	06/04/2016
26.	Ms. Anjela Moyong	Field-Cum-Lab Assistant	06/04/2016	06/04/2016
27.	Mr. Kaushlesh Kumar	Field-Cum-Lab Assistant	11/04/2016	11/04/2016
28.	Ms. Rini Pertin	Field-Cum-Lab Assistant	13/04/2016	13/04/2016
29.	Mr. Hage Kani	Field-Cum-Lab Assistant	15/04/2016	15/04/2016
30.	Mr. Baneswar Basumatary	Plumber	04/04/2016	04/04/2016
31.	Mr. Anurudh Sahani	Security Guard	04/04/2016	04/04/2016
32.	Mr. Dinesh Kumar Pandit	Multi Tasking Staff	04/04/2016	04/04/2016
33.	Mr. Vikash Sharma	Multi Tasking Staff	04/04/2016	04/04/2016
34.	Ms. Gegul Borang	Multi Tasking Staff	04/04/2016	04/04/2016
35.	Ms. Yateng Gao	Multi Tasking Staff	04/04/2016	04/04/2016
36.	Mr. Kamal Rai	Multi Tasking Staff	04/04/2016	04/04/2016
37.	Mr. Raj Kumar Maharaj	Multi Tasking Staff	04/04/2016	04/04/2016
38.	Ms. Priyanka Sharma	Multi Tasking Staff	04/04/2016	04/04/2016
39.	Ms. Nangko Mize	Multi Tasking Staff	04/04/2016	04/04/2016
40.	Ms. Nung Taggu	Multi Tasking Staff	04/04/2016	04/04/2016
41.	Mr. Tajong Tangu	Multi Tasking Staff	04/04/2016	04/04/2016
42.	Ms. Lalita Balmiki	Multi Tasking Staff	04/04/2016	04/04/2016
43.	Mr. Nirmal Mochahary	Multi Tasking Staff	06/04/2016	06/04/2016

HUMAN RESOURCES DEVELOPMENT

Sl. No	Name of Employee	Designation	Date of Appointment	Date of Joining
44.	Mr. Onong Mengu	Multi Tasking Staff	06/04/2016	06/04/2016
45.	Mr. Phanindra Tamang	Multi Tasking Staff	07/04/2016	07/04/2016
46.	Ms. Gaby Gao	Multi Tasking Staff	07/04/2016	07/04/2016
47.	Mr. Norbu Lama	Multi Tasking Staff	08/04/2016	08/04/2016
48.	Mr. Kyi Tabi	Multi Tasking Staff	19/04/2016	19/04/2016 (AN)
9. College of Horticulture (Thenzawl), Mizoram				
1.	Mr. Sapam Rajesh Kumar Singh	Teaching Associate	18/07/2016	30/08/2016
2.	Ms. Lalrinsangpui	Teaching Associate	13/06/2016	28/06/2016
3.	Ms. Lalremruati	Teaching Associate	13/06/2016	14/06/2016
4.	Dr. T. Subhalakshmi	Teaching Associate	18/07/2016	30/08/2016
10. College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland				
1.	Dr. P.C. Saseendran	Professor	22/09/2016	29/09/2016
2.	Dr. J.J. Chungath	Professor	-	07/11/2016
3.	Dr. Shamik Polley	Teaching Associate	07/07/2016	21/07/2016
4.	Dr. Imtiwati	Teaching Associate	07/07/2016	22/07/2016
5.	Dr. Bhabesh Mili	Teaching Associate	07/07/2016	01/08/2016
6.	Dr. Ksh. Mahesh Singh	Teaching Associate	07/07/2016	01/08/2016
7.	Dr. Malsawmkima	Teaching Associate	07/07/2016	01/08/2016
8.	Mr. Onong Tamuk	Field-Cum-Lab Assistant	14/09/2016	26/10/2016
9.	Mr. Njumthung Kithan	Computer Operator cum Office Assistant	18/07/2016	22/07/2016
10.	Mr. Takceulak	Multi Tasking Staff	18/07/2016	22/07/2016

5.3. List of Resigned/Retired/Demised Employees

Sl. No.	Name of Employee	Designation	Date of Retirement
1. CAU Headquarters			
1.	Dr. S.S. Nagra	Director of Instruction	Retired; 28.02.17 (A.N.)
2.	Shri M. Tomchou Singh	Head Assistant	Retired; 31.12.16 (A.N.)
3.	Shri N. Ramsunder Singh	Head Assistant	Retired; 31.12.16 (A.N.)
4.	Shri Ph. Bijoy Singh	Head Assistant	Retired; 07.08.16 (A.N.)
2. College of Agriculture, CAU, Imphal			
1.	Dr. N. Iboton Singh	Professor	Retired; 28/02/2017 (AN)
2.	Dr. N. Ram Singh	Professor	Retired; 31.05.17 (A.N.)



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Sl. No.	Name of Employee	Designation	Date of Retirement
3.	Dr. W. Ingo Meitei	Professor	Retired; 28/02/2017 (AN)
4.	Shri A. Gourabidhu Singh	Associate Professor	Retired; 31/10/2016 (AN)
5.	Shri Th. Robindro Singh	Lab Assistant	Retired; 31/12/2016 (AN)
6.	Shri Th. Rajen Singh	Lab Assistant	Retired; 31/12/2016 (AN)
7.	Shri H. Ibobi Singh	Field Assistant	Retired; 28/02/2017 (AN)
3. College of Post Graduate Studies, Umiam, Meghalaya			
1.	Dr. Nibedita Borgohain	Assistant Professor	Resigned and was relieved on 01/02/2017
4. College of Agricultural Engineering and Post Harvest Technology, Gangtok			
1.	Dr. P. K. Srivastava	Dean	Retired; 31/10/2016 (AN)
2.	Er. Vanita Pandey	Assistant Professor	Resigned and was relieved on 03/11/2016 (AN)
3.	Mr. Tamal Kanti Bhowmik	Field-Cum-Lab Assistant	Resigned and was relieved on 18/06/2016 (AN)
5. College of Home Science, Tura			
1.	Md. Jawaid Ashraf	Assistant Professor	Resigned and was relieved on 04/06/2017
6. College of Fisheries, Lembucherra, Tripura			
1	Dr. Biswarup Saha	Assistant Professor	Resigned and was relieved on 21/11/2016(A/N)
2.	Ms. Shilpishika Gogoi	Field-cum Lab.Assistant	Resigned and was relieved on 27/01/2017(A/N)
7. College of Horticulture & Forestry, Pasighat			
1.	Mr. Amon Sangma	Field-Cum-Lab Asstt	Resigned and was relieved on 07/03/2017
8. College of Veterinary Sciences & Animal Husbandry, Selesih, Mizoram			
1.	F. Laringheta	Field-cum Lab.Assistant	Resigned and was relieved on 13.12.16

5.4. List of Transfers

Sl. No.	Name of Employee	Designation	Place of Transfer	Date of Joining
1. CAU Headquarters				
1.	Dr. P.M. Pillai	Registrar	College of Veterinary Sciences & Animal Husbandry, Jalukie Nagaland	Transferred and relieved on 17.08.16 (A.N.)
2.	Dr. L. Nongdrenkhomba Singh	Associate Professor	Directorate of Extn. Edn to COA, Imphal.	18/10/2016

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Sl. No.	Name of Employee	Designation	Place of Transfer	Date of Joining
2. College of Veterinary Sciences & A.H., Selesih, Aizawl				
1.	Shri M. Priyokumar Meitei	Medical Attendant	College of Vety to COA, Imphal.	17/03/2016
3. College of Post Graduate Studies, Umiam, Meghalaya				
1.	Dr. K. Mamocha Singh	Professor	College of Agriculture, Imphal	CAU, 02/07/2016
2.	Dr. J. Panda	Associate Professor	CAEPHT, CAU, Ranipool.	04/08/2016
3.	Dr. Dileep Kr. Pandey	Associate Professor	CoHF & Forestry, CAU, Pasighat	15/04/2016
4.	Mr. Arjun K Basnet	Multi Tasking Staff	College of Fisheries, Lembucherra, Tripura	18/05/2016
4. College of Agricultural Engineering and Post Harvest Technology, Gangtok				
1.	Smt. R. K. Sakuntala Devi	Field-cum-Lab. Assistant	Horticulture and Research Farm, Andro, CAU, Imphal	18/06/2016 (AN)

5.5. List of Promotions

Sl. No	Name of Employee	Designation	Promoted to	Date of Promotion
1. College of Agriculture, CAU, Imphal				
1.	Smt. N. Adaphro	Account Assistant	Next grade higher	30/10/2011, vide Order No. CAU/Reg/1983/MACPS/2016 dated 2/8/2016
2.	Smt. L. Zimik,	Field-cum-Lab. Assistant	Next grade higher	19/04/2013 vide Order No. CAU/Reg/59-Tech/97(Pt)/2704 dated 10/06/2016
3.	Smt. Th. Joyshree	Field-cum-Lab. Assistant	Next grade higher	07/05/2013, vide Order No. CAU/Reg/59-Tech/97(Pt)/2704 dated 10/06/2016
4.	Shri Th. Sobha Singh	Field-cum-Lab. Assistant	Next grade higher	4/7/2013, vide Order No. CAU/Reg/59-Tech/97(Pt)/2704 dated 10/6/2016
5.	Shri M. Ojit Singh	Field-cum-Lab. Assistant	Next grade higher	7/7/2013, vide Order No. CAU/Reg/59-Tech/97(Pt)/2704 dated 10/6/2016
6.	Md Rashimuddin Khan	Multi Tasking Staff	Next grade higher	7/7/2013, vide Order No. CAU/Reg/1983/MACPS/2016 dated 18/6/2016
2. College of Post Graduate Studies, Umiam, Meghalaya				
1.	Ms. Milliancy M. Syiem	Clerk-cum-Typist	Upper Division Clerk	10/06/2016 (Date of Promotion) 08/10/2014 (effective date)



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Sl. No	Name of Employee	Designation	Promoted to	Date of Promotion
2.	Mr. Ch. Paikhomba Meitei	Clerk-cum-Typist	Upper Division Clerk	10/06/2016 (Date of Promotion) 12/10/2014 (effective date)
3.	Mr. A. Hemojit Singh	Clerk-cum-Typist	Upper Division Clerk	10/06/2016 (Date of Promotion) 12/10/2014 (effective date)
4.	Ms. Memcy Laloo	Clerk-cum-Typist	Upper Division Clerk	10/06/2016 (Date of Promotion) 13/10/2014 (effective date)
5.	Mrs. Darilin Kharsyntiew	Clerk-cum-Typist	Upper Division Clerk	10/06/2016 (Date of Promotion) 26/10/2014 (effective date)
6.	Mr. Holkhopao Lhungdim	Clerk-cum-Typist	Upper Division Clerk	10/06/2016 (Date of Promotion) 01/06/2014 (effective date)
7.	Ms. Ibansharai M. Marbaniang	Computer Operator	Computer Operator	10/06/2016 (Date of Promotion) 15/10/2014 (effective date)
8.	Mr. G. Ganeshwar Sharma	Farm Assistant	Farm Assistant	10/06/2016 (Date of Promotion) 21/03/2015 (effective date)
9.	Mr. K. Kham Khan Mung	Assistant Engineer	Assistant Engineer	10/06/2016 (Date of Promotion) 02/11/2013 (effective date)
3. College of Agricultural Engineering and Post Harvest Technology, Ranipool				
1.	Dr. P. K. Bora	Associate Professor	Professor, CPGS, Barapani, Meghalaya (Direct recruitment)	27/04/2016
2.	Dr. Y. Ranjana Devi	Assistant Professor	Deputy Director of Instruction, CAU, Imphal (Direct recruitment)	07/10/2016
4. College of Fisheries, Tripura				
1.	Mr. Th. Prabinanda Singh	Assistant Engineer	Assistant Engineer	10/06/2016
2.	Shri Sanjit Chakraborty	Electrician	Electrician	10/06/2016
3.	Mr. A. Jayanta Meetei	Lib. Assistant	Library Assistant	10/06/2016
4.	Mr. Rajib De	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016
5.	Dr. (Mrs.) Nandita Roy	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016
6.	Mrs. Barnali Choudhury	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016
7.	Mr. Avijit Das	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016
8.	Mr. Sanjib Debnath	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016
9.	Mrs. Gopa Halder	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016
10.	Mr. Debabrata Roy	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016
11.	Mr. Siddhartha P. Datta	Field-cum-Lab.Assistant	Field-cum-Lab.Assistant	10/06/2016

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Table 5.6. Trainings/Seminars/Conferences/Workshops and Summer Schools etc. organized by the constituent colleges

Sl. No.	Type of the Programme	Title of programme	Duration (No. of Days)	From	To
1. College of Agriculture, CAU, Imphal					
1.	National Seminar	Emerging Crops of North East India suitable for Horticulture Based Integrated Farming System	3	7 th February 2017	9 th February 2017
2.	Training	Training of trainers on personal power enhancement of female students	3	23 rd March, 2017	25 th March, 2017
3.	Training	'One Day Farmers' Awareness Programme' under Mera Gaon Mera Gaurav (MGMG) at Kangmong Village (Village-V), Imphal West (Manipur)	1	27 th July 2016	-
4.	Training	Backyard poultry farming and fish cum livestock integrated farming system under the Farmer First programme.	1	23 rd March, 2017	-
5.	Training	Cultivation of vegetable as a part of income generated activities of the livelihood security of the farmers under the Farmer First programme.	1	25 th March, 2017	-
6.	Training	Training cum demonstration on Preparation of nutritious food from locally available resources for good health for enhancement of income under the Farmer First programme.	1	27 th March, 2017	
7.	Training	Training programme on Enhancing socio-economic status and livelihood security of tribal farmers of NEH states through agricultural intervention.	1	28 th March, 2017	
2. College of Post Graduate Studies, Umiam, Meghalaya					
1.	Training	Management of Paddy cultivation	5	21 st August, 2016	25 th August, 2016
2.	Training	Pt. Deen Dayal Uoadhyay Unnat Krishi Shiksha Yojana	5	21 th March, 2017	25 th March, 2017
3.	Training	Plant Tissue Culture and its Applications	3	19 th January, 2017	24 th January, 2017
4.	Training	Cytology and Molecular Techniques	3	4 th March, 2017	6 th March, 2017
5.	Training	Pt. Deen Dayal Updadhaya Unnat Krishi Shiksha Yojana (under UBA)	5	16 th March, 2017	20 th March, 2017
6.	Summer School	Experiencing advanced analytical methods in Agricultural Extension Research	21	4 th July, 2016	25 th July, 2016
7.	Summer School	Information and Communication Technologies for Sustainable Agriculture Development	10	13 th June, 2016	22 nd June, 2016



Sl. No.	Type of the Programme	Title of programme	Duration (No. of Days)	From	To
3. College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl					
1.	Short Term Training	Advances in clinical diagnosis of large and small animal diseases for eterinary practitioners	05	21 st March, 2017	25 th March, 2017
2.	Short term training for line departments/ professionals.	Diagnosis, prevention & control of commercially important poultry diseases.	05	13 th February 2017	17 th February 2017
3.	Training Program	Molecular Detection and Characterization of Bacterial and Viral Pathogens of Veterinary Importance	05	14 th March, 2017	18 th March, 2017
4.	Training Program	'Conservation of Zebu Cattle'	05	7 th March, 2017	11 th March, 2017
5.	Training Program	Vermicomposting – a step towards organic farming'	05	14 th March, 2017	18 th March, 2017
6.	Training Program	Integration of farming for sustainability – for small and marginal farmers '	05	21 st March, 2017	25 th March, 2017
7.	Training Program	'Scientific and technology based farming for higher yield'	05	27 th March, 2017	31 th March, 2017
8.	Training Program	Scientific management of pig	3	16 th Nov., 2017	18 th Nov. 2017
9.	Training Program	Scientific management of pig	3	22 nd Mar., 2017	24 th March, 2017
4. College of Agricultural Engineering and Post Harvest Technology, Ranipool					
1.	International Conference	Emerging Trends in Science, Technology, Agriculture and Management-2016	03	21 st April, 2016	23 rd April, 2016
2.	National Workshop	Soft Computing Modeling-Food Processing, Pharmaceutical Sciences and Export Management- 16	03	21 st April, 2016	23 rd April, 2016
3.	Training (for Agricultural Officers)	Sustainable agriculture for food security & enhancing income to the farming community	05	4 th April, 2016	April 08, 2016
4.	Training (for Agricultural Officers)	Conservation agricultural practices and post harvest management for value addition	05	6 th June, 2016	June 10, 2016
5.	Training (for Agricultural Officers)	Integrated Farming System for Sustainable Agriculture	05	5 th Sept., 2016	Sept. 09, 2016
6.	Model Training Course (MTC)	Adoption of Secondary Agriculture for Employment Generation	08	17 th Oct., 2016	Oct. 24, 2016
7.	Workshop	Problems, prospects and Developing Strategy for Water Resources Management in South Sikkim	01	16 th June, 2016	June 16, 2016

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Sl. No.	Type of the Programme	Title of programme	Duration (No. of Days)	From	To
8.	Training	Remote Sensing and GIS Application in Watershed Management and Developmental Planning	03	28 th Feb., 2017	March 04, 2017
6. College of Home Science, Tura					
1.	Training Programme	Group management and record keeping in SHGs	03	11 th June, 2016	13 th June, 2016
2.	Workshop	'Workshop on Learning Techniques' for all the students of the college.	01	3 th February, 2017	
3.	Capacity Building Programme under Tribal Sub Plan (TSP)	1. Low cost Poly House, Mushroom House, Vermicomposting, Water Harvesting Structure, Sprinkler Irrigation and Poly House (Protected) Cultivation	01	7 th March, 2017	
4.	Capacity Building Programme under Tribal Sub Plan (TSP)	2. Scientific Piggery and Dairy Management	01	8 th March, 2017	
5.	Capacity Building Programme under Tribal Sub Plan (TSP)	3. Cultivation of Horticultural Crops-Vegetables, Spices and Plantation Crops for Enhancing Socio- Economic Status and Livelihood Security of ST farmers	01	9 th March, 2017	
6.	Capacity Building Programme under Tribal Sub Plan (TSP)	4. Modern Cultivation Practices of Field Crops (Paddy- CAU R1 & CAU- R2) for Enhancing Socio-Economic Status and Livelihood Security of ST farmers.	01	10 th March, 2017	
7.	Capacity Building Programme under Tribal Sub Plan (TSP)	5. Scientific Poultry, Goat and Fish Farming	02	17 th March, 2017	18 th March, 2017
8.	Awareness Programme	Parthenium Awareness Week-2016	01	19 th Aug., 2016	
9.	Workshop	Workshop on Cashew Stakeholders	02	23 rd Sept, 2016	24 th Sept, 2016
10.	Training	Package & Practices of CAU Rice Varieties (CAU R-1 and CAU R-2) in the adopted village under 'Mera Gaon Mera Gaurav'	01	03 rd Sept. 2016	-
11.	Demonstration of New Technology	Mushroom Production Technology' under 'Mera Gaon Mera Gaurav'	05	11 th Jan, 2017 27 th Jan., 2017	a) 13 th Jan, 2017 b) 28 th Jan, 2017
12.	Training for Line department personnel (Agriculture)	Pulse Production Technology Towards Nutritional Security	02	20 th Feb, 2017.	21 st Feb, 2017



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Sl. No.	Type of the Programme	Title of programme	Duration (No. of Days)	From	To
13.	Training	Income Generating Skills for Unemployed Youth through Preparation of Healthy Snack Items	03	31 st Jan., 2017	2 nd Feb., 2017
14.	Training	Value Addition of Jackfruit	03	27 th March, 2017	29 th March, 2017
15.	Observance	National Nutrition Week	07	1 st Sept., 2017	7 th Sept., 2017
7. College of Fisheries, Lembucherra, Tripura					
1.	On campus Training	Hands on training on soil and water analysis	03	7 th Sept., 2016	9 th Sept., 2016
2.	On campus Training	Hands on training on soil and water analysis	03	27 th Dec., 2016	29 th Dec., 2016
3.	On campus Sensitization Prog.	Sensitization on importance of fish health management	01	27 th Oct., 2016	
4.	On campus Training	Basic technique of molecular biology and bio-informatics.	10	24 th Oct., 2016	2 nd Nov., 2016
5.	On campus Training	Hands on training on modern techniques of molecular biology	05	11 th Nov., 2016	15 th Nov., 2016
6.	On campus Training	Fish disease management	03	9 th Jan., 2017	11 th Jan., 2017
7.	On Campus Training	3 nos. of training on organic farming (Pandit Deen Dayal Upadhyay) in collaboration with Kalyan Ashram, Agartala	10	20 th March, 2017	29 th March, 2017
8.	Off campus Awareness programme	Fish disease management	01	29 th Mar., 2017	29 th Mar., 2017
9.	Off Campus Workshop	Workshop for Norms setting women led SHGs of adopted village	34	13 th April, 2016	16 th May, 2016
10.	Off Campus Workshop	Community workshop in adopted village	05	4 th April, 2016	8 th April, 2016
11.	On Campus Training	Constitution of interest groups and their How to do training on carrying out harvest vis-à-vis grading transportation and marketing of live fish.	33	28 th May, 2016	25 th June, 2016
12.	On Campus Training	Participatory seed production of Pabda	13	18 th July, 2016	30 th July, 2016
13.	Off Campus Workshop	Workshop on co-management of fisheries and aquaculture (Nagaland & Meghalaya)	02	11 th June, 2016	12 June, 2016
14.	Off Campus Training	Participatory seed production of Magur	16	15 th Aug., 2016	30 th Aug., 2016

Sl. No.	Type of the Programme	Title of programme	Duration (No. of Days)	From	To
15.	Off campus Awareness programme	Fish disease management	01	7 th Mar., 2017	7 th Mar., 2017
16.	Off Campus Training	2 nos. of training on organic farming (Pandit Deen Dayal Upadhyay) in collaboration with Kalyan Ashram, Agartala	05	27 th March, 2017	31 st March, 2017
8. College of Horticulure & Forestry, Pasighat, Arunachal Pradesh					
1.	Arunachal Agri Expo 2017	Technology Lead Agriculture	02	21 st January, 2017	22 nd January, 2017
2.	State Level Workshop on Spices	Strategies for harnessing the potential of spices production in Arunachal Pradesh	02	22 nd March, 2017	23 rd March, 2017
3.	State Level Interface Meeting for Arunachal Pradesh	Interface Meeting with the state officials, progressive growers, NGOs and other Stakeholders to discuss their agriculture related issues with university personnel	01	12 th August, 2016	-
4.	Vocational Training	Nursery management in horticultural crops with special to fruit crops.	90	25 th February, 2017	25 th May, 2017
5.	Vocational Training	High Value Flowers & Medicinal Crops	90	30 th December, 2016	29 th March, 2017
6.	Vocational Training programme	Protected Cultivation of High Value Horticulture Crops	90	30 th December, 2016	29 th March, 2017
7.	Soft Skill Training	Ignite Young Minds	03	21 st October, 2016	23 rd October, 2016
8.	Training	Preservation and Processing of Horticultural Crops	03	9 th March, 2017	11 th March, 2017
9.	Training	Improved cultivation practices of summer vegetable	20	20 th March, 2017	21 st March, 2017
10.	Training	Good Agricultural Practices for controlling fruit drops in Khasi mandarin in A.P.	03	2 nd March, 2017	4 th March, 2017
11.	Training	Nursery Techniques & Management of Forest Tree Species	10	28 th January, 2017	6 th February, 2017
12.	Training	Quality Seed Production Technique in Legume Crops	10	24 th January, 2017	2 nd February, 2017
13.	Training	Livestock Management	01	14 th March, 2017	-
14.	Training	Dehydration of flowers, foliage and floral craft	03	30 th January, 2017	1 st February, 2017
15.	Training	Production Technology of Commercial Flowers	03	2 nd February, 2017	4 th February, 2017



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Sl. No.	Type of the Programme	Title of programme	Duration (No. of Days)	From	To
16.	Training	Good Agricultural Practice for Controlling Fruit Drops in Khasi Mandarin (Citrus reticulata Blanco.)	03	2 nd March, 2017	4 th March, 2017
17.	Training	Water Management in Citrus	01	30 th January, 2017	-
18.	Training	Organic Production System	03	7 th February, 2017	9 th February, 2017
19.	Training	Diagnosis of Nutritional Disorders and their Remedial Measures	01	14 th February, 2017	-
20.	Training	Soil Sampling Techniques	01	17 th February, 2017	-
21.	Training	Post Harvest Management of Some Important Fruit Crops	03	23 rd March, 2017	25 th March, 2017
22.	Training	Integrated Nutrient Management	01	18 th February, 2017	-
23.	Training	Soil Testing and Fertilizer Recommendation	01	25 th February, 2017	-
24.	Training	IDM on vegetable crops	03	10 th February, 2017	-
25.	Training	Advances in Production Technology of Temperate fruit crops	01	22 nd February, 2017	25 th February, 2017
26.	Training	Production Technology of Khasi Mandarin with Budded Plants & Distribution of Budded Plants	01	3 rd February, 2017	-
27.	Training	Short term training on Nursery Management in fruit crops	03	5 th January, 2017	7 th January, 2017
28.	Training	Production Technology of "Exotic Vegetables"	02	17 th March, 2017	18 th March, 2017
29.	Training	Protected Cultivation of Vegetable Crops	02	15 th March, 2017	16 th March, 2017
30.	Training	Introduction, Repair and Maintenance of Tractor, Power tiller, Plant protection equipments and Centrifugal pump	01	27 th March, 2017	-
31.	Training	Entrepreneurship Development through Self help Group	01	25 th March, 2017	-
32.	Training	Integrated disease management of pulse crops	01	26 th February, 2017	-
33.	Training	Cultivation of Oyster mushroom and spawn production	01	30 th January, 2017	-
34.	Training	Cultivation of Oyster mushroom and spawn production	02	9 th February, 2017	10 th February, 2017

Sl. No.	Type of the Programme	Title of programme	Duration (No. of Days)	From	To
35.	Training	Cultivation of Oyster mushroom and spawn production	02	13 th February, 2017	14 th February, 2017
36.	Training	Cultivation of Oyster mushroom and spawn production	01	16 th February, 2017	16 th February, 2017
37.	Training	Cultivation of Oyster mushroom and spawn production	01	25 th February, 2017	-
38.	Training	Cultivation of Oyster mushroom and spawn production	01	17 th March, 2017	-
39.	Training	Agroforestry for naturally resource management and climate change mitigation	02	22 nd February, 2017	24 th February, 2017
40.	Training	Advances in disease diagnostic techniques	05	21 st February, 2017	25 th February, 2017
41.	Training	Short term training on Advances in Production Technology of fruit crops	03	8 th March, 2017	10 th March, 2017
42.	Training	Oyster mushroom cultivation for women employment	01	29 th October, 2016	-
43.	Farmers Training	“Improved Cultivation Practices of Winter Vegetables”	02	27 th March, 2017	28 th March, 2017
44.	Training	Cultivation of Oyster mushroom	01	14 th December, 2016	-
45.	Farmer-Scientist Interaction	Jai Kisan Jai Vigyan Week	01	26 th December, 2017	-
46.	Rabi Kisan Sammelan	Rabi Kisan Sammelan	01	9 th October, 2016	-
47.	Training cum awareness programme	Use of Floating Pelleted Fish Feed for Aquaculture”	01	21 st November, 2016	-

Table 5.7 Details of various capacity building programmes attended by faculty and staff of the university.

Sl. No	Name of College	Higher studies	Conference		Seminars		Workshop	Training	
			National	International	National	International		Long term (>3 weeks)	Short term (<3 weeks)
1.	College of Agriculture, CAU, Imphal	-	2	-	9	5	-	-	-
2.	College of Post-Graduate Studies, CAU, Umi-am	2	10	5	5	-	5	0	6
3.	College of Agriculture, Kyrdemkulai, Ri-Bhoi	-	-	-	-	-	-	-	-



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Sl. No	Name of College	Higher studies	Conference		Seminars		Workshop	Training	
			National	International	National	International		Long term (>3 weeks)	Short term (<3 weeks)
4.	College of Agricultural Engineering and Post Harvest Technology, Gangtok	01	03	03	03	-	04	-	-
5.	College of Horticulture, Bermiok, Sikkim	-	-	-	-	-	-	-	-
6.	College of Fisheries, Tripura	-	-	-	4	-	5	2	3
7.	College of Horticulture and Forestry, Pasighat	-	3	3	6	-	6	2	2
8.	College of Agriculture, Pasighat	-	-	-	-	-	-	-	-
9.	CVSc & A.H., Selesih, Aizawl	-	2	1	2	1	-	-	1
10.	College of Home Science	2	2	1	4	1	1	2	2
11.	College of Horticulture (Thenzawl), Mizoram	-	-	-	-	-	-	-	2
12.	College of Food Technology, Imphal	-	-	-	-	-	-	-	-
13.	College of Veterinary Sciences & Animal Husbandry, Jalukie, Nagaland	-	-	-	-	-	-	-	2
Grand Total		05	22	13	33	07	21	06	18

Table 5.8 Lectures/keynote address/invited talks/chairperson etc delivered by faculties of the university.

Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
1. College of Agriculture, CAU, Imphal					
1.	Dr. M. Norjit Singh	Issues and strategies for piggery enterprise in NEH region.	Improving entrepreneurial skills of farming community for income generation under different IFS models and technological intervention	06/12/2016	ICAR Research Complex for NEH Region, Manipur Centre, Imphal.

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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
2.	Shri N. Gopimohan Singh	Research Methods in Agricultural Extension	Post Graduate Diploma in Agricultural Extension Management (PGDAEM)	25/06/2016	Organized by SAMETI, Dept. of Agriculture, Govt. of Manipur
3.	Dr. E V Divakara Sastry	"Why Spices"	National Seminar on "Emerging Crops of North-East India Suitable for Horticulture Based Integrated Farming system	07/02/2017	Central Agricultural University, Imphal
4.		"Multiple Choice Questions"	Innovations in Education Technology- winter school held from 1 st to 20 th December, 2016	08/12/2016	Maharana Pratap University of Agriculture and Technology, Udaipur
5.		"Scientific Information Management and personal documentation for the Agricultural scientists"	Innovations in Education Technology- winter school held from 1 st to 20 th December, 2016	08/12/2016	Maharana Pratap University of Agriculture and Technology, Udaipur
6.	Dr. N. Okendro Singh	(a) 'Advances in essential of sampling in Extension Science Research' on the 19 th July 2016 from 2.00 pm to 4.30 pm. (b) 'Application of Multiple Correlation and Multiple Regression in Extension Science Research' on 20 th July 2016 from 2.00 pm to 4.30 pm. (c) 'Hands on exercise on application of Logit, Probit and Tobit Regression in Extension Research' on 21 st July 2016 from 10.00 am to 1.00 pm and from 2.00 to 4.30 pm.	Delivered lectures and hands on exercise (practical) were conducted in the ICAR sponsored Summer School on "Experiencing advanced analytical methods in agricultural extension research"	04/07/2016 to 25/07/2016	Organized by the School of Social Sciences, CPGS, CAU (Imphal), Umiam, Meghalaya
2. College of Post Graduate Studies, Umiam, Meghalaya					
1.	Dr. N. Janaki Singh	RS and GIS application in Agricultural Extension Research	21 days Training Programme on Experiencing Advance Analytical Methods in Agricultural Extension Research	19/07/16	College of Post-Graduate Studies, Umiam, Meghalaya
2.		Nutrient Management through natural processes, Zebu Cattle (Nitrate formation by lightning, plant waste recycling)	In Pt. Deen Dayal Uoadhyay Unnat Krishi Shiksha Yojana Training Programme	22/03/17	College of Post-Graduate Studies, Umiam, Meghalaya



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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
3.	Dr. P.K. Bora	Space Application in Drought Monitoring	Space Technology Inputs in Disaster Risk Reduction in NE Region with Special Emphasis on Early Warning, Preparedness and Mitigation	17/03/17	North Eastern Space Application Centre, Umiam, Meghalaya.
4.		Green Water Management	International Conference in Agriculture, Science, Technology, Management and Social Sciences-2016 and National Workshop on Soft Computing Modelling and Medical Sciences and A Symposium on Women Empowerment, held during 10-12 November, 2016 in Carmel College, Goa.	11/11/16	FATER Academy of India and Carmel College, Goa
5.		SRI System of Rice Cultivation	Season Long Training Programme on "Integrated Pest Management" during 2 nd Feb. to 3 rd Mar., 2017	08/02/2017	Central Integrated Pest Management Program, Shillong and Directorate of Pest Management and Quarantine Services, Faridabad, New Delhi
6.	Dr. D. Thakuria		Season Long Training Programme on "Integrated Pest Management" during 2 nd Feb. to 3 rd Mar., 2017	06/02/2017	Central Integrated Pest Management Program, Shillong and Directorate of Pest Management and Quarantine Services, Faridabad, New Delhi
7.		Role of plant microbes on habitat adaptability of plant under changing climate	UGC sponsored National Seminar on "Alternative approaches in Agriculture for Sustainable Environment and Human Health" during June 24-25, 2016	25/06/2016	SBMS College, Sualkuchi, Kamrup in collaboration with Botanical Society of Assam
8.		Plant-microbe interactions mediated tolerance to abiotic stresses in host plants	International symposium on "Microbes and biosphere: What's New What's Next" during November 24-27, 2016	26/11/2016	Gauhati University, Guwahati, Assam.
9.		Soil Health and Nutrient Management	Interface Meeting held on the occasion of the NEAgriFair 2016-17 at Imphal.	-	Central Agricultural University, Imphal, Manipur
10.		Organic Farming and Integrated Farming Systems	Interface Meeting held on the occasion of the NEAgriFair 2016-17 at Imphal	-	Central Agricultural University Imphal, Manipur.

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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
11.	Dr. P. K. Bora	Water conservation techniques, emphasis on alternative sources of energy, introduction on relevant farm implements, tools and their usages in different farming operations.	In Pt. Deen Dayal Uoadhyay Unnat Krishi Shiksha Yojana Training Programme	18/03/17 23/03/17 28/03/17	College of Post-Graduate Studies, Umiam, Meghalaya
12.		Water management through planning of optimized mix crops, water management as per rules of ZBNF with uses on Jivamitra, ghan Jivmitra, concept of Vaphsa, etc.	In Pt. Deen Dayal Uoadhyay Unnat Krishi Shiksha Yojana Training Programme	18/03/17 23/03/17 28/03/17	College of Post-Graduate Studies, Umiam, Meghalaya
13.		Different in use of ZBNF inputs and comparison between, traditional water management, advanced water management.	In Pt. Deen Dayal Uoadhyay Unnat Krishi Shiksha Yojana Training Programme	18/03/17 23/03/17 28/03/17	College of Post-Graduate Studies, Umiam, Meghalaya
14.	Dr. Lala I.P. Ray	1. Roof top water Harvesting 2. Irrigation water Management	3-Days Workshop	3/10/16	Dept. of Agricultural Engineering, Triguna Sen School of Technology, Silchar
15.	Dr Sanjay Swami	Importance of soil testing in paddy cultivation	Management of Paddy Cultivation	16/08/2016 to 22/08/2016	College of Post-Graduate Studies, Umiam, Meghalaya
16.		Real time nitrogen management in paddy through leaf colour chart	Management of Paddy Cultivation	16/08/2016 to 22/08/2016	College of Post-Graduate Studies, Umiam, Meghalaya
17.		Management of Paddy Cultivation	Centrally sponsored scheme: Soil Health Cards	16/08/2016 to 22/08/2016	College of Post-Graduate Studies, Umiam, Meghalaya
18.		How to collect good soil samples from forest soils for testing	Trainees of Range Forest Office, Barnihat	25/01/2017	College of Post-Graduate Studies, Umiam, Meghalaya
19.	Dr. V. K. Khanna	Motivation and Stress Management	General	17/11/16	College of Post-Graduate Studies, Umiam, Meghalaya



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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
20.		Personality Development	General	24/11/16	College of Post-Graduate Studies, Umiam, Meghalaya
21.		Attitude in relation to success in life	General	29/11/16	College of Post-Graduate Studies, Umiam, Meghalaya
22.	Mr. Ng. Tombisana Meetei	Requirements for Plant Tissue Culture Experiments	Plant Tissue Culture	19/01/17	College of Post-Graduate Studies, Umiam, Meghalaya
23.	Dr. V.K. Chowdhury	Plant Tissue Culture	Plant Tissue Culture and its Applications	21/01/17	College of Post-Graduate Studies, Umiam, Meghalaya
24.		Wide-hybridization for Crop Improvement	Plant Tissue Culture and its Applications	21/01/17	College of Post-Graduate Studies, Umiam, Meghalaya
		Embryo-rescue for crop improvement with special reference to <i>Solanum</i> and <i>Capsicum</i>	Plant Tissue Culture and its Applications	21/01/17	College of Post-Graduate Studies, Umiam, Meghalaya
25.		Prospects of Ginger Improvement against Biotic and Abiotic stress	Cytology and Molecular Technique	04/03/17	College of Post-Graduate Studies, Umiam, Meghalaya
26.	Dr. A. K. Singh	Making of Vermicompost from farm waste	Cytology and Molecular Technique	04/03/17	College of Post-Graduate Studies, Umiam, Meghalaya
27.	Dr. Priti B. Konwar	Measurement of photosynthesis CO ₂ assimilation by using Infra Red gas Analyser (IRGA)	Cytology and Molecular Technique	04/03/17	College of Post-Graduate Studies, Umiam, Meghalaya
28.	Dr. V. K. Khanna	Biotechnological Research Approaches for Sustainable Horticulture Development- Indian Perspective	Cytology and Molecular Technique	04/03/17	College of Post-Graduate Studies, Umiam, Meghalaya
29.	Mr. Naveen Kumar K. L	Maize Pollination Techniques and Magic Population	Cytology and Molecular Technique	06/03/17	College of Post-Graduate Studies, Umiam, Meghalaya

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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
30.	Dr. R. K. Tombisana Devi,	Importance of plant disease forecasting	Invited Resource Person	17/02/2017	Directorate of Plant Protection Quarantine & Storage, GOI, Shillong Unit at NAMETI, Upper Shillong
31.	Dr. N. S. Azad Thakur	i). Integrated pest management (IPM) techniques. ii).	Pt. Deen Dayal Upadhaya Unnat Krishi Shiksha Yojna	17/03/2017	College of Post-Graduate Studies, Umiam, Meghalaya
32.		IPM techniques- monitoring techniques of insects, life cycle and eco friendly management of production of bio- control agents.	Pt. Deen Dayal Upadhaya Unnat Krishi Shiksha Yojna	17/03/2017	College of Post-Graduate Studies, Umiam, Meghalaya
33.	D. Majumder	Major Diseases of Rice of Meghalaya and Management	Pandit Dindayal Upadhaya Unnat Krishi Shiksha Yojana	25/03/2017	College of Post-Graduate Studies, Umiam, Meghalaya
34.		Major diseases of vegetables of Meghalaya and their management	Pandit Dindayal Upadhaya Unnat Krishi Shiksha Yojana	26/03/2017	College of Post-Graduate Studies, Umiam, Meghalaya
35.		Detection and diagnosis of major rice diseases of meghalaya	Plant Quarantine & Storage, GOI, Shillong Unit	23/02/2017	Plant Quarantine & Storage, GOI, Shillong Unit
36.		Mushroom Cultivation	K.V.K. Ri-bhoi	15/03/2017	Ri-Bhoi, KVK, ICAR, Umiam, Meghalaya
37.		“Gene pyramiding for the management of Plant Diseases in North East India”	“Facilitating a shift from chemo-centric to organic mode of plant health management in the North East”	04/11/2016 to 05/11/2016	Deptt. of Plant Pathology, Assam, Agricultural University, Jorhat
38.		Virulence profiling of <i>Xanthomonas oryzae</i> pv. <i>oryzae</i> isolates of North East India and identification of effective rice bacterial blight resistance genes	“Facilitating a shift from chemo-centric to organic mode of plant health management in the North East”	04/11/2016 to 05/11/2016	Deptt. of Plant Pathology, Assam, Agricultural University, Jorhat
39.	Dr. T. Rajesh	Pulse production Technology towards Nutritional Security	Invited Resource Person	20/02/2017 to 21/02/2017	College of Home Science, CAU, (Imphal), Tura, Meghalaya



Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
40.	Dr. K. Ningthoujam	Storage rice grain and their management	Resource Person	15/02/2017	Directorate of Plant Protection Quarantine & Storage, GOI, Shillong Unit at NAMETI, Upper Shillong
41.	Dr Ram Singh	Lead paper on Role of System of Rice Intensification Method in Improving Health and Nutritional Security: A Micro Level Study in Tripura State	8 th NEE Congress	28/01/2017 to 31/01/2017	ICAR-NAARM, Hyderabad
3. College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl					
1.	Dr. K. Lalrintluanga	Breeding management of dairy cows	Awareness cum Training on “ Good Dairy Farming Practices” under Unnat Bharat Abhiyan”	29/03/2016 to 02/04/2016	Organized by KVK Aizawl, at Conference Hall, KVK, Aizawl, College of Veterinary Sci. and AH., Selesih
2.		Talk on Porcine Respiratory and Reproductive Syndrome (PRRS)”	Rural Programme	April 2016	All India Radio, Aizawl.
3.		Live Discussion on Zoonotic diseases	Live discussion on the occasion of World Zoonosis day	06/07/2016	DDK, Aizawl.
4.		Importance of Vaccination in livestock (Rantehriven-napekpawimawhna).	Rural Programme	August 2016	All India Radio, Aizawl.
5.		Augmentation of Reproductive Efficiency through Oestrus Synchronization Protocols	Training Programme for Capacity building of Extension functionaries on the theme “Recent Advances in Animal Husbandry & Transfer of Animal Husbandry technologies to the Field”.	03/11/2016 to 04/11/2016	KVK Aizawlin Collaboration with Directorate of Extension Education, Imphal at Conference hall, Extension Education Complex, CVSC&AH., Selesih, Aizawl.
6.		Thallai a ran hrleng thin leh a enkawldan (Diseases prevailing during spring season and their treatment)	Rural Programme	February 2017	All India Radio, Aizawl
7.		Reproductive Problems in pig	Two days training programme on “Scientific Management of Pig”	29/03/2017 to 30/03/2017	Dept of Livestock Production and Management, CVSC&AH., CAU Selesih at the Department.

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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
8.		Approach to an obstetrical cases in Bovine	Advances in Clinical Diagnosis of Large and Small Animal Diseases for Veterinary Practitioners	21/03/2017 to 25/03/2017	Teaching Veterinary Clinical Complex., CVSC&AH, CAU, SelesihAizawl .
9.	Dr. F. A. Ahmed	Clinical diagnosis and management of certain reproductive disorders in livestock	Advances in Clinical Diagnosis of Large and Small Animal Diseases for Veterinary Practitioners	21/03/2017 to 25/03/2017	Teaching Veterinary Clinical Complex., CVSC&AH, CAU, SelesihAizawl .
10.	Dr. J. K. Chaudhary	Statistical methods in Biomedical Research	4 days workshop on entitled "Statistical methods in Biomedical Research	27/01/2017 to 30/01/2017	ICAR- National Research Centre on Mithun, Dimapur, Nagaland
11.	Dr. T. K. Rajkhowa	Field experiences on viral diseases of pigs in Mizoram, India.	Weekly departmental seminar with invited speaker at Department of Pathobiology, University of Connecticut, CT, USA.	02/11/2016	Department of Pathobiology, University of Connecticut, CT, USA.
12.	Dr. Parimal Roychoudhury	"ELISA for diagnosis of poultry disease"	"Diagnosis prevention and control of commercially important poultry diseases"14/02/2017	13/02/2017 to 17/02/2017	Department of Veterinary Pathology, College of veterinary sciences & AH, CAU, Selesih, Aizawl
4. College of Agricultural Engineering and Post Harvest Technology, Gangtok					
1.	Dr. Mahendra S. Seveda	Wind Energy Conversion Technologies	STTP on Electrical Power system Basics: Conventional & Non-conventional" Under TEQIP-II	21/09/2016	Government Women Engineering College, Ajmer, Rajasthan
2.	Dr. Abujam Anuradha Devi	Catalyzing investment in Infrastructure	Catalyzing investment in the food processing sector in Sikkim	21/03/2017	Confederation of Indian Industry (CII) with Ministry of food Processing Industries (MoFPI), Hotel Tashi Delek, Gangtok
3.	Dr. Deepak Jhajharia	Evaporation paradox in the humid environments of northeast India & Use of various statistical techniques in the climate change studies	TEQIP-II sponsored workshop on "Climate Change Assessment: Hydrologic Modelling and Perspective"	19/10/2016 to 23/10/2016	Department of Civil Engineering, NIT Sicha, Assam



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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
4.	Dr. G. T. Patle	Preparation of input database for hydrus, input database for Modflow and Analysis of Modflow	Simulation Models in Irrigation, Drainage and Water Resources Management	02/03/2017 to 04/03/2017	College of Agricultural Engineering, Acharya N.G. Ranga Agricultural University, Bapatala, Andhra Pradesh
5.	Dr. Sujata Jena	Flavors of Incredible Sikkim	North East Food Processing & Technology Seminar	21/01/17	Federation of Industry & Commerce of North Eastern Region (FINER), Sikkim chapter, Gangtok
5. College of Home Science, Tura					
1.	Dr. P. Das	Our daughters our pride	-	28/07/16	All India Radio, Tura, Meghalaya
2.	Natasha R. Marak	Value Addition of Jackfruit	National Seminar on Potential & Prospects of Horticulture in NE Region	27/03/17	North Eastern Hill University, Camp:Tura, Meghalaya
3.		Nutrition during Pregnancy and Lactation (in the Garo)	-	06/09/16	All India Radio, Tura, Meghalaya
4.	Dr. Lakshmi Dhar Hatai	Pulse Production towards an economic prospective.	Pulse Production Technology Towards Nutritional Security for Line department personnel (Agriculture)	20/02/17	College of Home Science, Tura, Meghalaya
5.		Mushroom Production Technology: An Economic Aspect	Capacity Building Programme under Tribal Sub Plan (TSP)	07/03/17	College of Home Science, Tura, Meghalaya
6. College of Fisheries, Lembucherra, Tripura					
1.	Prof. R. K. Saha	Trends and future strategies for aquaculture development of North-East India – role of COF, CAU, Tripura	Workshop on Climate Change & Fisheries Development in Tripura	09/04/2016 to 10/04/2016	Tripura Graduate Fisheries Officers Association; Held at Shahed Bhagat Singh Conference Hall, Khejubagan, Agartala
2.		Fish Disease Surveillance In Northeastern India with special reference to Tripura	National Seminar on Priorities in Fisheries and Aquaculture- 2017	11/03/2017 to 12/03/2017	Inland Fisheries Society of India (IFSI), Barrackpore, COF, OUT, OFCAAR, OUT & ICAR-CIFRI; Heald at College of Fisheries, Orissa

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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
3.		Challenges of Climate Change (Keynote address)	2 nd Students' Project Programme of TSCST	17/03/2017 to 18/03/2017	Tripura State Council for Science and Technology; Organised by Holy Cross College, Jubatara, Tripura
4.		Impacts of Climate Change on Fish and Strategies to Adopt to it in the Context of NE India	State level Workshop on Sustainable Management of Himalayan Agro-Ecosystem under NMSHE	10/09/2016	Organized by ICAR- Tripura Centre, Lembucherra, Tripura
5.	Dr. R.K. Majumdar	Scope of Fish Processing sector and marketing of value added fish products in Tripura	NFDB programme	17/3/2017	Office of the Fishery Officer, Kathalia RD Block, Sonamura Sub-Division under NFDB Programme, Tripura
6.	Dr.S.C. Mandal	Invited Lecture	National Workshop on "Ornamental Fishes for Livelihood and Entrepreneurship Dev. in NE India"	8/11/2016 to 9/11/2016	St. Anthony's College, Shillong, Meghalaya
7. College of Horticulture & Forestry, Pasighat					
1.	Dr. A.K. Pandey	Prospects of Horticulture In NEH Region: issues and opportunities	National Symposium on Natural Resource Management for Sustainable Agriculture and Rural Development	05/11/2016	Society of Biological Sciences and Rural Development, Allahabad
2.		Enhancing the Vegetable production in NEH Region- technological intervention"	National Seminar on Emerging crops of North East India Suitable for Horticulture Based Integrated Farming System	07/02/2017 to 09/02/2017	Department of Horticulture, Central Agricultural University, Imphal, Manipur
3.		Present status and prospects of spices production in Arunachal Pradesh	State Level Work Shop on Strategies for harnessing the potentials of spices production in Arunachal Pradesh	22/03/2017 to 23/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
4.	Dr. B N Hazarika	Co-Chairman, Technical Session	National Seminar on Emerging crops of North East India suitable for horticulture based integrated farming system.	07/02/2017 to 09/02/2017	Department of Horticulture, Central Agricultural University, Imphal, Manipur
5.		Chairman, Technical Session VI & Lead paper-Minor fruit of Arunachal Pradesh	1 st International Conference on bioresource environment and agricultural Science	04/02/2017 to 06/12/2017	Viswa Bharati, West Bengal



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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
6.		Co-Chairman, Technical Session II	State level workshop on strategies for harnessing the potential of spices production in Arunachal Pradesh	02/03/2017 to 23/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
7.		Response of banana varieties to macropropagation	National Seminar on Emerging crops of North East India suitable for horticulture based integrated farming system	19/12/2017 to 21/12/2017	Department of Horticulture, Central Agricultural University, Imphal, Manipur
8.		Organic production of banana and pineapple	Capacity building training on sustainable organic production of horticultural crops-is-sues and strategies	18/03/2017 to 21/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
9.		Pre harvest management of banana and pineapple	Training on post harvest management of some important fruit crops	23/03/2017 to 25/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
10.		Pre harvest management of banana and pineapple	Training on post harvest management of some important fruit crops	23/03/2017 to 25/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
11.		Importance of fruit nursery management	Training on Advances in production of fruit crops	8/03/2017 to 10/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
12.		Advances in production technology of underutilised fruit crops	Training on Advances in production of fruit crops	8/03/2017 to 10/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
13.		Advances in production technology of banana	Training on Advances in production of fruit crops	8/03/2017 to 10/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
14.		Organic banana production in NE India	Training on soil testing and organic farming for sustainable agriculture management in NE India	18/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
15.		Planting system in high value fruit crops	Vocational training on protected cultivation of high value horticultural crops	17/01/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
16.		Hi Tech Nursery	Training on nursery management in fruits crops	5/01/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
17.		Propagation of banana	citrus, Training on nursery management in fruits crops	6/01/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
18.		Production technology of khasi mandarin with budded plant	Training on production technology khasi mandarin with budded plant and distribution of budded plants	03/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
19.		Advances in canopy architecture in temperate fruits crops	Advances in production technology of temperate fruits.	22/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
20.		Advances in production of low chilling temperate fruits crops	Advances in production technology of temperate fruits.	23/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
21.		Rootstock for temperate fruits crops	Advances in production technology of temperate fruits.	24/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
22.		Production technology of pear	Advances in production technology of temperate fruits.	25/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
23.		Hands on training on propagation of major fruit crops	Vocational training on Nursery management in horticultural crops with special to fruit crops	25/02/2017 to 25/05/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
24.		Training and pruning of fruit crops	Vocational training on protected cultivation of high value horticultural crops	13/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
25.	Dr. Mukul Kumar	Methods of organic seed production	10 days training programme on "Soil Testing and Organic Farming for Sustainable Agriculture Management in North East India"	9/02/2017 to 18/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh



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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
26.		Protection of Plant Varieties & Farmers' Right	4 days capacity building training programme on " Sustainable Organic Production of Horticulture Crops-Issues and Strategies	18/03/2017 to 21/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
27.		Conservation and Management Strategies for Forest Genetic Resources of North East India	10 days training programme on " Nursery Technique and Management of Forest Tree Species"	28/01/2017 to 6/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
28.	Dr. Ng. Pilloo	Value Addition and processed product of mushroom'	10 days training programme on "Cultivation, Spawn Production and Processing of Oyster Mushroom" during 17-26 August 2016 sponsored by ICAR, Directorate of Mushroom Research, Solan, H.P.	18/08/2016	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
29.		Demonstration of developed appropriate post harvest technology of Horticultural Crops	Demonstration of developed appropriate post harvest technology Under SMAM 2015-16	7/12/2016	FTC, Pasighat, East Siang District
30.		Preparation of Soya milk and Soya Paneer (Tofu)	02 days training programme on "Value Addition of Milk and Meat" on 11-12 th January, 2017	12/01/2017	Krishi Vigyan Kendra East Siang, CHF, CAU.
31.		Technology of Pickle making	01 day training Programme on Food Security group	3/02/2017	GTC, DDA (Trg) & ATMA, East Siang District, Pasighat
32.		Food Preservation	02days training programme on "Agriculture and Small and Cottage Industry Activities" held on 16-17 th March, 2017.	16/03/2017	ICDS District Level Cell, Pasighat
33.		Post harvest Handling, Processing & Value Addition of Spices in Arunachal Pradesh	02 days MIDH-State Level Workshop on "Strategies for Harnessing the Potential of Spices Production in Arunachal Pradesh" held during 22-23 rd March , 2017	23/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
34.		Enhancing the shelf life of Horticultural Produce through Post harvest handling & Value Addition	04days capacity building training programme on "Sustainable Organic Production of Horticulture Crops-Issues and Strategies" held on 18-21 st March , 2017 sponsored by Directorate of ATARI, Zone III, ICAR, Barapani	19/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
35.		“Post harvest management of Organic fruits and vegetables”	10 days training programme on “Soil Testing and Organic Farming for Sustainable Agriculture Management in North East India” from 9-18 th February, 2017 organized by Department of NRM, CHF, Pasighat.	14/02/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
36.		“Effect of PGR on quality of Mandarin”.	03days training programme on “Good Agricultural Practices for controlling fruit drops in Khasi Mandarin” held from 2-5 th March, 2017, organized by Department of Fruit Science, CHF, CAU, Pasighat	4/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
37.		“Post Harvest Management of Exotic Vegetables”	02days training programme on “Production Technology of Exotic Vegetables” held during 17-18 th March , 2017, organized by Department of Vegetable Science, CHF, CAU, Pasighat.	18/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
38.		“Post Harvest Management & Processing of Fruits”	03days training programme on “Post Harvest Management of Some important fruit crops” held from 23-25 th March , 2017, organized by Department of Fruit Science, CHF, CAU, Pasighat.	25/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
39.		“Post Harvest management and value addition of winter vegetables”	02days training programme on “Improved Cultivation Practices of Winter Vegetables” held on 27-28 th March, 2017, organized by Department of Vegetable Science, CHF, CAU, Pasighat.	28/03/2017	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh
40.	Dr. Rajkumar Singh	Strengthening and Development of Higher Agricultural Education in India” under Library strengthening Programme.	Meeting of Librarians of SAUs/DUs on 11 th August, 2016 at NASC Complex, New Delhi	11/08/2016	Indian council of Agricultural Research, Krishi Anusandhan Bhawan-II, Pusa, New Delhi-110012
41.		Long Term Roadmap of the Library development Plan for every Constituent colleges of the Central Agricultural University, Imphal Manipur	1 st Meeting of the Librarian’s of the constituent Colleges of Central Agricultural University, Imphal	29/12/2016	College of Agriculture, Central Agricultural University, Imphal 795004 Manipur.



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Sl. No.	Name of faculty	Topic delivered	Title of Programme	Date	Institution/ Organization
42	Dr. Chandra Deo	Scope of Tuber Crops in relation to climatic change: A prospective in NE Region	“Emerging Crops of North-East India suitable for Horticulture Based Integrated Farming System”	07/02/2017 to 09/02/2017	College of Agriculture, Imphal, Manipur
43.	Dr. P.S. Mariam	Enhancing growth and yield of Okra (<i>Abelmoschus esculentus</i> L.) through Integrated Nutrient Management	“Emerging Crops of North-East India suitable for Horticulture Based Integrated Farming System”	07/02/2017 to 09/02/2017	College of Agriculture, Imphal, Manipur
8. College of Horticulture (Thenzawl), Mizoram					
1.	Sapam Rajeshkumar Singh	Mulching, green manuring & soil testing	Training programme for farmers on “Cow based Economy”	21/03/2017 to 25/03/2017	Conference Hall, KVK, Aizawl

Table 5.9 Guest lectures organised

Sl. no.	Name of the visitor	Date of guest lecture delivered	Topic
1. College of Post Graduate Studies, Umiam, Meghalaya			
1.	Prof. P. K. Chhonkar Ex-Professor and Head (SSAC), IARI, New Delhi, ICAR Emeritus Scientist,	28/09/2016	Physical and mental fitness for attaining academic excellence
2.	Dr. Subhash Chander, Principal Scientist, IARI, New Delhi on	28/09/2016	Climate change impacts on insects and pest management adaptations
3.	Dr. D. Velmurugan, Professor & UGC-BSR Faculty, Centre of Advanced Study in Crystallography & Biophysics, University of Madras, Chennai	01/12/2016	Discovery of small molecule as drugs using x-ray crystallography-In the context of NE medicinal plant
4.	Dr. S. J. Jambhulkar	02/02/17	Nuclear Techniques in Agriculture
5.	Dr. Dinesh Singh, Principal Scientist, Division of Plant Pathology, IARI, New Delhi	15/04/2017 to 20/04/2016	Advanced bacteriology courses
6.	Dr. Jayanta Tarafder Professor, Plant Pathology BCKV, Kalyani, West Bengal	22/04/2017 to 26/04/2017	Molecular basis of host-pathogen interaction courses
2. College of Agricultural Engineering and Post Harvest Technology, Gangtok			
1.	Shri V. K. Agarwal	20/08/2016	Water Resources Management
2.	Dr. R. P. Kaachru	20/07/2016	Agro-Processing & Value Addition for Entrepreneurship & Business Development
3.	Mr Ramit Gupta	23/07/2016	Career opportunities and enriching the Agricultural Engineering as a profession
4.	Mr. Abhinay Choudhury,	07/10/2016	Employment opportunity of students of CAEPHT

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Sl. no.	Name of the visitor	Date of guest lecture delivered	Topic
3. College of Home Science, Tura			
1.	Dr. Chirom Kamaljit	14/04/2016 to 16/04/2016	Instructional Video Production
2.	Dr. Abhigyan Bhattacharjee	25/04/2016, 28/04/2016 & 29/04/2016	HRD and its importance
4. College of Fisheries, Lembucherra, Tripura			
1.	Mr. Satya Prakash	24/4/2017 to 30/04/2017	Delivered Lecture on Aquaculture for the ICAR-JRF Examination 2017
2.	Mr. Ranjan Kumar	21/03/2017 to 25/03/2017	Delivered Lecture to UG (3 rd & 4 th) and PG (1 st & 2 nd) year for the ICAR-JRF/SRF Examination 2017
3.	Dr. B.K. Bhattacharjee	07/02/2017	Delivered Lecture on Oxbow lake/Beel fisheries
4.	Dr. B.B. Nayak	21/10/2016	Delivered Lecture on Fisheries Microbiology
5. College of Horticulture & Forestry, Pasighat			
1.	Dr. Major Singh, Coordinator, AICRP (Vegetables), ICAR, Varanasi	21/03/2017	Role of Biotechnology in Agriculture

Table 5.10 Recognition of faculty members and staff through their excellence during 2016-17

Sl. No.	Name of Faculty	Served as External Examiners	Received Ph.D.	Others
1. College of Agriculture, CAU, Imphal				
1.	Dr. E V Divakara Sastry	1. Banaras Hindu Univeristy 2. MPUAT 3. IARI	-	-
2. College of Post Graduate Studies, Umiam, Meghalaya				
1.	Dr. P. K. Bora	1. AAU 2. College of Agricultural Engineering & PHT, Ranipool	-	Chairperson in Technical Session in International Conference held during 10-12 November, 2016 in Carmel College, Goa.
2.	Dr. D. Thakuria	-	-	Editor, J of ISSS DBT-Research Associate ship Programs
3.	Dr. Mayank Rai	Ph D thesis <i>viva voce</i> of 1. Dr. Deepjyoti Deka, AAU, Jorhat 2. Dr. Nayanjyoti Borah, AAU, Jorhat	-	-



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SI. No.	Name of Faculty	Served as External Examiners	Received Ph.D.	Others
4.	Dr. Wricha Tyagi	M Sc examination, NEHU, Shillong	-	-
5.	Dr. D. Majumder	Ph. D thesis evaluation, BCKV, Nadia, West Bengal	-	-
6.	Dr. Ram Singh	1. Visva-Bharati, Bolpur, West Bengal 2. Banda University of Agriculture & Technology, Banda (U.P.)	-	-
7.	Dr. S.M. Feroze	1. Visva-Bharati, Bolpur, West Bengal 2. UBKV, Coochbehar, West Bengal		
8.	Dr. K. K. Datta	1. IVRI, Izatnagar, UP 2. Culcutta University, Kolkata 3. PAU, Ludhiana		
9.	Dr. L. Devarani	End-term theory paper set for College of Agriculture, Agartala, Tripura		
3. College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl				
1.	Dr. E. Motina	College of Veterinary Sciences & Animal Husbandry, Khanapara, Guwahati, Assam .		
2.	Dr. P. C. Kalita,	1. College of Veterinary Sciences & Animal Husbandry, Khana para, Guwahati, Assam 2. O.U.A.T. Bhubaneswar		
3.	Dr. A. Kalita,	1. College of Veterinary Sciences, Khanapara, Guwahati, Assam		
4.	Dr A. K. Samanta	1. West Bengal University of Animal & Fishery Sciences, Kolkata. 2. CVSC, AAU, Khanapara. 3. SKUAST-K, Shalimar, Srinagar		
5.	Dr. T. K. Dutta	1. WBUAFS, Kolkata (Vet. Microbiology paper II) 2. RIPANS, Aizawl, Mizoram (Immunology, Serology & Virology) 3. Mizoram University (MSc Biotechnology) 4. AAU, Assam (Ph.D thesis <i>viva-voce</i> examination) 5. Gauhati University (Ph.D. comprehensive <i>viva voce</i> examination)		

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Sl. No.	Name of Faculty	Served as External Examiners	Received Ph.D.	Others
4. College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim				
1.	Dr. Sujata Jena	M. Tech thesis Evaluation for AAU, Anand)	-	-
2.	Dr. Deepak Jhajharia	NERIST Entrance Examination 2017	-	-
3.	Dr. G. T. Patle	NERIST Entrance Examination 2017	-	-
4.	Dr. Mahendra S. Seveda	1. NERIST Entrance Examination 2017 2. PAU, Ludhania Entrance Examination 2017	-	-
5. College of Fisheries, Lembucherra, Tripura				
1.	Dr. Himanshu Priyadarshi	-	Ph.D. awarded by CIFE, Mumbai	-
2.	Dr. Pampa Bhattacharjee	-	Ph.D. awarded by Tripura University, Tripura	-
3.	Dr. H. Saha	-	Ph.D. awarded by CIFE, Mumbai	-
4.	Prof. Rani Dhanze	G.B. Pant University of Agricultural Sciences & Technology		Member of Biotechnological Social development award-2016 committee at NBFGR, Lucknow on 24 th March 2017
5.	Dr. Atanu Sarkar	-	-	Delivered a lecture in Summer School at BCKV, Dept. of Agricultural Extension, Nadia, WB, 13/9/2016 to 15/9/2016
6.	Prof. R. K. Saha	Papersetter ICAR Exam; OPC, Orissa; College of Fisheries, Kolkata; College of Fisheries, Raha, Assam; PhD thesis evaluator.	-	Judge for evaluation of UG & PG Students Project during 2nd Students' Project Programme of TSCST 17-18/03/2017
7.	Dr. M.K. Datta	-	-	Resource Person in Job Training Programme for students of Industrial Fish & Fisheries of Cachar College, Silchar" organized from 6-10 March, 2017 at Cachar College, Silchar, Assam



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Sl. No.	Name of Faculty	Served as External Examiners	Received Ph.D.	Others
8.	Dr. Dibyendu Kamilya	-	-	Resource Person in the Workshop on Technological interventions in Agri-Aquaculture Research, Assam University, Silchar, Assam 26/9/2016 to 28/9/2016
9.	Dr. M.K. Datta	1. College of Fisheries, Kolkata; 2. College of Fisheries, Raha, Assam	-	-
10.	Dr. A.B. Patel	-	-	Member of Board of Studies; College of Fisheries, TCA, Dholi, Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar, 27/12/2016 to 29/12/2016
11.	Dr. Biswarup Saha			Resource Person in the Workshop on Technological interventions in Agri-Aquaculture Research, Assam University, Silchar, Assam, 26/9/2016 to 28/9/2016
12.	Dr. Pampa Bhattacharjee	1. W.B. Univ. Anim. & Fish. Sciences, Kolkata 2. G.B. Pant Univ.	-	-
13.	Dr. K.V. Radhakrishnan	W.B. Univ. Anim. & Fish. Sciences, Kolkata	-	Dr. Pradyut Biswas, Acted as Resource Person in Job Training Programme for students of Industrial Fish & Fisheries of Cachar College, Silchar" organized from 6-10 March, 2017 at Cachar College, Silchar, Assam
14.	Dr. S.S. Mahanand	-	-	Resource Person in the Dept. of Agricultural Engineering, Triguna Sen School of Technology, Assam University, Silchar, Assam, 09/2/2017 to 11/2/2017
15.	Dr. A.D. Upadhyay	W.B. Univ. Anim. & Fish. Sciences, Kolkata	-	-
16.	Mr. Himadri Saha	W.B. Univ. Anim. & Fish. Sciences, Kolkata	-	-

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Sl. No.	Name of Faculty	Served as External Examiners	Received Ph.D.	Others
17.	Dr. S.C. Mandal	W.B. Univ. Anim. & Fish. Sciences, Kolkata	-	-
18.	Dr. D. Kamilya	W.B. Univ. Anim. & Fish. Sciences, Kolkata	-	-
19.	Dr. B. Saha	W.B. Univ. Anim. & Fish. Sciences, Kolkata	-	-
20.	Dr. J. Parhi	OUAT, Bhubaneshwar	-	-
21.	Dr. S.S. Mahanand	WBUAFS, Kolkata	-	-
6. College of Horticulture & Forestry, Pasighat				
1.	Dr. B N Hazarika	1. AAU, Jorhat 2. Nagaland University	-	-
2.	Dr. Mukul Kumar	1. AAU, Jorhat, Assam	-	Co-chairman of IV th technical session in two days state workshop on “Strategies for harnessing the potential for spice production in Arunachal Pradesh”

Table 5.11 Awards and recognition of faculty members

Sl. No.	Name of the College	Name of the faculty	Designation	Details of Awards
1.	College of Agriculture, Imphal, Manipur	Dr. Daya Ram Dr. Mangsatabam Norjit Singh	Assistant Professor (Department of Extension Education) Assistant Professor (Department of Animal Sciences)	Certificate of Merit during Summer School from 7 th Sept. To 27 th Sept. 2016 at BCKV, West Bengal. Young Scientist Award-2017, by Society of Human Resources and Innovation, Agra during 1 st National conference on Advances in Global Research in Agricultural Technology from 18 to 19 March, 2017 at Agra. Dr. V.S. Alwar Best Article Award. (Research paper entitled “Sero-diagnostic potential of <i>Babesia gibsoni</i> recombinant Thrombospondin Related Adhesive Protein (TRAP)” during the 26 th National Congress of Veterinary Parasitology held at Veterinary College, Shivamogga, from 15-17 th Feb, 2017 organised by Indian Association for the Advancement of Veterinary Parasitology.
2.	College of Post Graduate Studies, Umiam, Meghalaya	Dr. Sanjay Swami	Associate Professor (School of Natural Resource Management)	Best Paper Presentation Award: 8 th National Extension Education Congress, 2017 on Nutrition-Sensitive Agriculture: Changing Role of Extension, January 28-31, 2017 at ICAR-NAARM, Hyderabad



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Sl. No.	Name of the College	Name of the faculty	Designation	Details of Awards
		Dr. D. Majumder	Assoc. Prof. (School of Crop Protection)	Best Worker Award in 8 th National Extension Education Congress, 2017 on Nutrition-Sensitive Agriculture: Changing Role of Extension, January 28-31, 2017 at ICAR-NAARM, Hyderabad for extending extra-ordinary assistance in all the Congress related assignments. Councillor for East Zone of the Indian Society of Plant Pathologists Executive Council (2013-15)
		Dr. Ram Singh	Associate Professor (School of Social Sciences)	North-East Extension Meritorious award and it was presented by Hon'ble Vice-Chancellor, CAU, Imphal jointly with Dr. R.P. Singh, Former VC, MPUAT, Udaipur and President of SEE, Agra during 8 th NEE Congress on 28-31 January, 2017 at ICAR-NAARM, Hyderabad. Reviewer excellence award as reviewer of Indian Journal of Agricultural Research and Legume research-An international Journal, ARCC, Karnal during 2016-17 Indian Society of Agricultural Economics, Mumbai, (India) during 76 th Annual Conference, AAU, Jorhat held on 21-23 rd November, 2016
3.	College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram	Dr. P. C. Kalita	Associate Professor	"Reviewer Excellence Award" as reviewer of Indian Journal of Animal Research and Asian Journal of Dairy and Food Research. ARCC Journals during 2016.
		Dr. T. K. Rajkhowa	Associate Professor	Overseas Research associateship at University of Connecticut, Storrs, CT, USA, awarded by DBT, Ministry of Science and Technology, GOI, New Delhi from 01-09-16 to 30-11-16
		Dr. A. K. Samanta	Associate Professor & Head	Received second best paper (Oral) award for the research paper "Effect of Feeding Palm Oil (<i>Elaeis guineensis</i>) Sludge as a Partial Replacement of Maize on the Performance of Growing crossbred (Large White Yorkshire × Zovawk) Pigs" presented at X Biennial Animal Nutrition Association Conference held at CVSc, Sri Venkateswara Veterinary University, Tirupati w.e.f. 9 th to 11 th November, 2016.

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Sl. No.	Name of the College	Name of the faculty	Designation	Details of Awards
4.		Dr. Deepak Jhajharia	Associate Professor	Distinguished Alumni Award-2016 by CTAE MPUAT, Udaipur Rajasthan.
		Dr. Mahendra S. Seveda	Associate Professor	Received Young Scientist Award-2017 during National Congress-2017. Received Best paper Presentation Award-2017 during National Congress-2017
		Dr. G. T. Patle	Assistant Professor	Received Distinguished Service Certificate Award- 2016 for the significant contributions in the field of Soil and Water Conservation Engineering by The Indian society of Agricultural Engineers, New Delhi.
5.	College of Home Science, Tura, Meghalaya	Dr. B. Lahiri	Assistant Professor	Young Scientist Award from SEEA Best Paper Presentation Award at 8 th NEEC 2017. Best Paper Presentation Award in National Seminar organized by NEHU and KVK, Tura.
		Dr. S. Sarkar	Assistant Professor	Best Paper Presentation Award (Oral) in National Seminar organized by NEHU and KVK, Tura.
6.	College of Fisheries, Lembucherra, Tripura	Dr. Atanu Sarkar	Professor	'Rahtriya Gaurav Award' along with Certificate of Excellence during the Annual Ceremony of India International Friendship Society on 1 st October, 2016 in New Delhi.
	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh	Dr. A.K. Pandey	Dean	Life Time Achievement Award, 2016 Conferred by Society of Biological Sciences and Rural Development, Allahabad on the occasion of National Symposium on "Natural Resource Management for Sustainable Agriculture and Rural Development" held at Allahabad on Nov. 5-6, 2016.
7.		Dr. B N Hazarika	Professor	Recognised as Member, Joint Inspection Team, Dept. of Agriculture, Cooperation & Farmers Welfare, (Mission for Integrated Development of Horticulture), Krishi Bhawan, New Delhi.
		Dr. B.P. Mishra and Dr. M.M. Kumawat	Assistant Professor	Scientist of the Year Award by The Society of Biological Sciences and Rural Development, Allahabad, Uttar Pradesh.



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Table 5.12 MOU Signed/collaboration with other institutes during 2016-17

Sl. No.	1 st Party (Name of the institute with address)	2 nd party (Name of the institute with address)	Date of signing
1.	Central Potato Research Institute (CPRI), Shimla	Central Agricultural University, Imphal, Manipur (College of Post Graduate Studies, Umiam, Meghalaya)	05/05/2017
2.	Indira Gandhi Krishi Vishwavidyalaya (IGKV) Raipur, Chattisharh	Central Agricultural University, Imphal, Manipur (College of Post Graduate Studies, Umiam, Meghalaya)	30/12/2016
3..	College of Home Science, Tura	Meghalaya Basin Development Authority, Government of Meghalaya	04/11/2016

6



Infrastructure Development



6.I. Physical achievements report in respect of construction works under XII Plan during 2016-17

Sl. No.	Name of Campus	Items	Name of the Construction Agency	Physical Outputs
1.	College of Agriculture, Iroisemba, Imphal, Manipur. (Existing College)	1. Post Graduate Hostel 2. Boys' Hostel 3. Girls' Hostel 4. Type-III Qtr. (10 nos.) 5. Type-IV Qtr. (10 nos.) 6. Extension of Existing Play Ground for Football and Cricket (Earth Filling) 7. Procurement/Installation of 1x250K-VA Transformer and Providing a separate Dedicated Feeder 8. Site Development i) Leveling and Development of University Research Farm, Iroisemba ii) Internal Roads & Path iii) Filter water supply	Agreement signed between CAU and NPCC Ltd. on 28 th November, 2015.	Finalization of tendering process is going on.
2.	College of Horticulture & Forestry, Pasighat, Arunachal Pradesh (Existing College)	1. Boys' Hostel (20 students) 2. Girls' Hostel (20 students) 3. Type-V Qtr. (1 no.) 4. Type-IV Qtr. (14 nos.) 5. Type-III Qtr. (16 nos.) 6. Type-II Qtr. (20 nos.) 7. Sports Complex 8. Solar Power Plant 9. Drinking water supply	Agreement signed between CAU and Bridge & Roof Co. (India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works in full swing. All the foundation & column works of the buildings completed. Super-structure works in progress.
3.	College of Home Science, Tura, Meghalaya (Existing College)	1. Library building (15.43x16.465) including interior of auditorium 2. Department of Basic Science and Humanities (Panel & Glass partition) 3. Department of HDFS i) Nursery School Building with Day Care/Crèche ii) Fencing of Playground 4. Department of TAD i) Weaving and Spinning Laboratory 5. Food Processing Laboratory/unit for experiential learning 6. Dispensary 7. Site development and retaining walls 8. Solar Power Plant 9. Drinking water supply	Agreement signed between CAU and Bridge & Roof Co.(India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works in full swing. All the foundation & column works of the buildings completed. Super-structure works in progress.

INFRASTRUCTURE DEVELOPMENT

Sl. No.	Name of Campus	Items	Name of the Construction Agency	Physical Outputs
4.	College of Agricultural Engineering & Post Harvest Technology, Ranipool, Gangtok, Sikkim <i>(Existing College)</i>	<ol style="list-style-type: none"> 1. Processing/interior of auditorium 2. Library 3. Extension of Residential Quarters <ol style="list-style-type: none"> i) Type-II (24 nos.) ii) Type-III (16 nos.) iii) Type-IV (4 nos.) 4. Boys' Hostel Extension & Additional Floor to Boys' Hostel Utility block 5. Girls Hostel Extension 6. Boundary wall of college campus and VAT/cess 7. Transit Hostel for Teacher & Staff 8. Water Treatment Plant 9. River Training Extension 10. Site Development & Landscaping 11. Solar Energy Power Plant 	Agreement signed between CAU and Bridge & Roof Co.(India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works in full swing. All the foundation & column works of the buildings completed. Super-structure works in progress.
5.	College of Agriculture at Pasighat, Arunachal Pradesh <i>(New College)</i>	<ol style="list-style-type: none"> 1. Administrative & Academic block 2. Boys' Hostel with dining 3. Girls Hostel with dining 4. Type-II Qtr. (2 nos.) 5. Transit accommodation for Faculty 6. Pre-fabricated structure for <ol style="list-style-type: none"> i) Academic/Admn. Blocks & Labs. ii) Boys' & Girls' Hostel and iii) Transit Hostel (20 Persons) 	Agreement signed between CAU and NPCC Ltd. for Pre-fabricated structure on 12/3/15 & Agreement signed between CAU and Bridge & Roof Co.(India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works in full swing. All the foundation & column works of the buildings completed. Super-structure works in progress.
6.	College of Horticulture & Forestry at Bermiok, South Sikkim. <i>(New College)</i>	<ol style="list-style-type: none"> 1. Administrative & Academic block 2. Boys' Hostel with dining 3. Girls Hostel with dining 4. Type-II Qtr. (2 nos.) 5. Transit accommodation for Faculty 6. Pre-fabricated structure for <ol style="list-style-type: none"> i) Academic/Admn. Blocks & Labs. ii) Boys' & Girls' Hostel and iii) Transit Hostel (20 Persons) 	Agreement signed between CAU and Bridge & Roof Co.(India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works in full swing. All the foundation & column works of the buildings completed. Super-structure works in progress.



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Sl. No.	Name of Campus	Items	Name of the Construction Agency	Physical Outputs
7.	College of Food Technology at Imphal, Manipur (New College)	1. Administrative & Academic block 2. Boys' Hostel with dining 3. Girls Hostel with dining 4. Type-II Qtr. (2 nos.) 5. Transit accommodation for Faculty 6. Pre-fabricated structure for i) Academic/Admn. Blocks & Labs. ii) Boys' & Girls' Hostel and iii) Transit Hostel (20 Persons)	Agreement signed between CAU and MTDC Ltd. on 12 th March, 2015 for Pre-fabricated structure and work is under good progress & Agreement signed between CAU and NPCC Ltd. on 28 th November, 2015	Finalization of tendering process is going on.
8.	College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram (Existing College)	1. Addl. Floor for academic building 2. Addl. Floor for teaching Hospital 3. Post Operative Animal shed 4. Construction of Retention walls 5. Development of Ground / fencing work / Toe wall/ protection wall 6. Construction of Roads for new buildings 7. PG Hostel for Men (1 Blocks) 8. PG Hostel for Women (1 Blocks) 9. Development of Fodder Farm 10. Construction / development of New Roads 11. Construction of water processing plant 12. Construction of water reservoir 13. Solar Power Plant.	The construction of 1) III rd floor of New Academic building. 2) II nd Floor of Teaching Veterinary Hospital and Animal shed 3) Parking area, Approach road & drain for Academic building has been completed by IR-CON Ltd. Agreement for the balance work has been signed between CAU and NPCC Ltd. on 1 st September, 2015	Completed & taken over by the College authorities. Re-tendering for the works was floated.

INFRASTRUCTURE DEVELOPMENT

Sl. No.	Name of Campus	Items	Name of the Construction Agency	Physical Outputs
9.	College of Fisheries, Lembucherra, Agartala, Tripura (Existing College)	<ol style="list-style-type: none"> 1. Extension of Administrative & College building 2. Library building & Staff Car parking 3. Swimming pool 4. Extension of Girls' Hostel 5. Construction of Additional dining hall & kitchen for Boys' Hostel 6. PG Hostel for Boys' (capacity 20 students) 7. PG Hostel for Girls' (capacity 20 students) 8. Internal Black topping of Old Roads 9. Water Treatment Plant & Tube well set 10. Extension of water supply line 11. Providing of Transformer 200 KVA 12. Electric Control Panel 13. Street lighting 14. Generator of Hostel & Important Laboratories 15. Provision of Solar Energy 16. Site Development 17. Expansion of ATIC 18. Expansion of feed mill 	Agreement signed between CAU and Bridge & Roof Co.(India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works in full swing. All the foundation & column works of the buildings completed. Super-structure works in progress.
10.	College of Post Graduate Studies, Barapani, Meghalaya (Existing College)	<ol style="list-style-type: none"> 1. Residential Qtrs. <ol style="list-style-type: none"> i) Type-II (8 nos.) ii) Type-III (8 nos.) iii) Type-IV (8 nos.) 2. Expansion of Boys' Hostel 3. Expansion of Girls' Hostel 4. Farm House Cum Store 5. Threshing Floor 6. Students Utility Centre with Cafeteria 7. Field Laboratory 8. Mini Auditorium 9. Basket Ball Court 10. Car Parking Area for Employees 	Agreement signed between CAU and Bridge & Roof Co.(India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works in full swing. All the foundation & column works of the buildings completed. Super-structure works in progress.



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Sl. No.	Name of Campus	Items	Name of the Construction Agency	Physical Outputs
		11. Barrack for Security Guards with attached Toilets 12. Field Hydraulic and Hydrology Laboratory 13. Farm Road 14. Fencing for Experimental Farm 15. Supply of Drinking water 16. Solar Power Plant		
11.	College of Horticulture & Forestry at Thenzawl, Mizoram (New College)	1. Administrative & Academic block 2. Boys' Hostel with dining 3. Girls Hostel with dining 4. Type-II Qtr. (2 nos.) 5. Transit accommodation for Faculty 6. Pre-fabricated structure for i) Academic/Admn. Blocks & Labs. ii) Boys' & Girls' Hostel and iii) Transit Hostel (20 Persons)	Agreement signed between CAU and NPCC Ltd. on 1 st September, 2015	Works awarded to contractors and construction works commence at site.
12.	College of Veterinary Sciences & Animal Husbandry at Zalukie, Peren Dist. Nagaland (New College)	1. Administrative & Academic block 2. Boys' Hostel with dining 3. Girls Hostel with dining 4. Type-II Qtr. (2 nos.) 5. Transit accommodation for Faculty 6. Pre-fabricated structure for i) Academic/Admn. Blocks & Labs. ii) Boys' & Girls' Hostel and iii) Transit Hostel (20 Persons)	Agreement signed between CAU and NPCC Ltd. on 1 st September, 2015	Works awarded to contractors and construction works commence at site.
13.	College of Agriculture at Kyrdemkulai, Ribhoi Dist. Meghalaya (New College)	1. Administrative & Academic block 2. Boys' Hostel with dining 3. Girls Hostel with dining 4. Type-II Qtr. (2 nos.) 5. Transit accommodation for Faculty 6. Pre-fabricated structure for i) Academic/Admn. Blocks & Labs. ii) Boys' & Girls' Hostel and iii) Transit Hostel (20 Persons)	Agreement signed between CAU and Bridge & Roof Co.(India) Ltd., on 31 st August, 2015	Works awarded to contractors and construction works commence at site.

INFRASTRUCTURE DEVELOPMENT

6.1.1. Establishment of Multi Technology Testing Centers and Vocational Training Centers in all the existing constituent Colleges

Sl. No.	Name of Campus	Items	Name of the Construction Agency	Physical outputs
1.	College of Agriculture, Imphal, Manipur	1. Multi-Technology Testing Centre 1. Multi-Disciplinary Labs 2. Animal sheds 2. Vocational Training Centre 1. Hostel for 20 students 2. Office rooms 3. Lecture hall for 40 students	Manipur Tribal Development Corporation Ltd., Manipur	Tendering process is going on.
2.	College of Horticulture and Forestry, Pasighat, Arunachal Pradesh	1. Multi-Technology Testing Centre A. Multi-Disciplinary Labs B. Animal sheds 2. Vocational Training Centre 1. Hostel for 20 students 2. Office rooms 3. Lecture hall for 40 students	M/s. Bridge & Roof Co.(l) Ltd	Estimates approved by DARE
3.	College of Home Science, Tura, Meghalaya	1. Multi-Technology Testing Centre 1. Multi-Disciplinary Labs 2. Animal sheds 3. Fish ponds 2. Vocational Training Centre 1. Hostel for 20 students 2. Office rooms 3. Lecture hall for 40 students	M/s. Bridge & Roof Co.(l) Ltd	Estimates approved by DARE
4.	College of Agricultural Engineering & Post Harvest Technology, Ranipool, Sikkim	1. Multi-Technology Testing Centre 1. Multi-Disciplinary Labs 2. Animal sheds 3. Fish ponds 2. Vocational Training Centre 1. Hostel for 20 students 2. Office rooms 3. Lecture hall for 40 students	M/s. Bridge & Roof Co.(l) Ltd	Estimates approved by DARE
5.	College of Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram	1. Multi-Technology Testing Centre 1. Multi-Disciplinary Labs 2. Animal sheds 3. Fish ponds 2. Vocational Training Centre 1. Hostel for 20 students 2. Office rooms 3. Lecture hall for 40 students	M/s. NPCC Ltd.	A cost estimate already prepared by construction agency has been forwarded to Director (Works), ICAR for Vetting.



Sl. No.	Name of Campus	Items	Name of the Construction Agency	Physical outputs
6.	College of Fisheries, Lembucherra, Agartala, Tripura	1. Multi-Technology Testing Centre 1. Multi-Disciplinary Labs 2. Animal sheds 2. Vocational Training Centre 1. Hostel for 20 students 2. Office rooms 3. Lecture hall for 40 students	M/s. Bridge & Roof Co.(I) Ltd.	A cost estimate already prepared by construction agency has been forwarded to Director (Works), ICAR for Vetting.

6.1.2. New course of Biotechnology in College of Fisheries, Agartala, Tripura

Sl. No	Name of Campus	Items	Name of the Construction Agency	Physical Outputs
1.	Biotechnology in College of Fisheries, Lembucherra, Agartala, Tripura.	1. 1 st Floor of ATIC building 2. Providing of railing and Furnishings	M/s. Bridge & Roof Co.(I) Ltd.	Preparation of estimates under progress by the Architect/Consultant of the Agency.

6.2. Physical achievements report in respect of construction works under X & XI Plan during 2016-17

Sl. No	Name of College	Construction Agency	Details of work taken up by the construction agency	Physical achievements
1.	College of Fisheries, Lembucherra, Agartala, Tripura.	NPCC Ltd.	A. Buildings: 1. Type-I Quarters with additional work (600 sqm) 2. Feed Mill House with additional work (194 sqm) 3. Overhead RCC Tank with additional work (1,00,000 litres capacity) 4. Underground RCC Reservoir (1,50,000 litres capacity) 5. ATIC Building with additional work (600 sqm)	1. Completed & taken over by College Authorities. 2. Completed & taken over by College Authorities. 3. Completed & taken over by College Authorities. 4. Completed & taken over by College Authorities. 5. Completed & taken over by College Authorities.

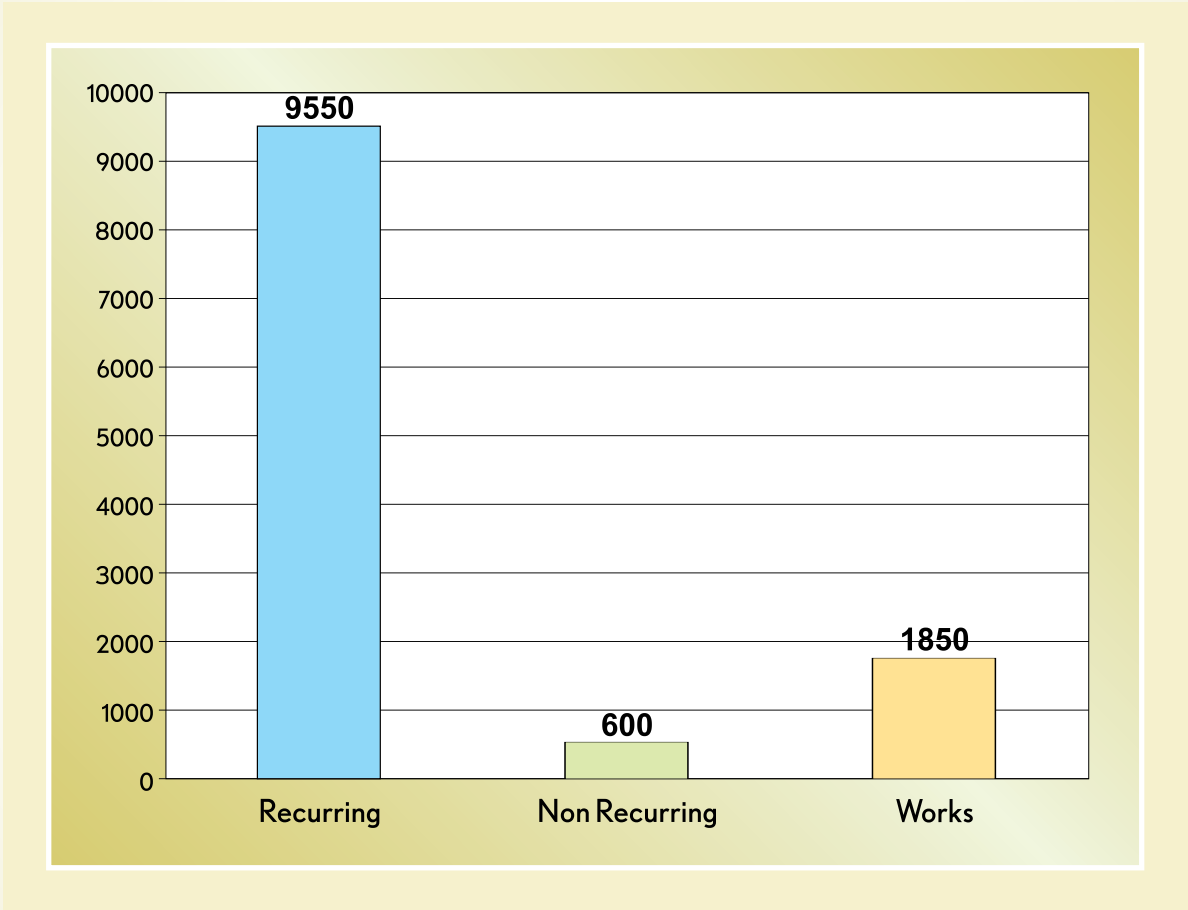
INFRASTRUCTURE DEVELOPMENT

<p>2. College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram.</p>	<p>IRCON International Ltd.</p>	<p>A. Buildings:</p> <ol style="list-style-type: none"> 1. Academic Block & Lab. Block (2455 sqm) 2. Community Hall/Multipurpose Hall (415 sqm) 3. Teaching Hospital (1094 sqm) with Garage & Workshop (205 sqm) 4. PG Hostel (690 sqm) with Medical Unit (410 sqm) 5. ATIC Building (600 sqm) 6. Site development works like retaining walls, approach road, drainage etc. 	<ol style="list-style-type: none"> 1. Completed & taken over by College Authorities. 2. Completed & taken over by College Authorities. 3. Completed & taken over by College Authorities. 4. Completed & taken over by College Authorities. 5. Completed & taken over by College Authorities. 6. Completed & taken over by College Authorities.
<p>3. College of Post Graduate Studies, Barapani, Shillong, Meghalaya.</p>	<p>EP(I)Ltd.</p>	<p>A. Academic & Administrative Complex:</p> <ol style="list-style-type: none"> 1. School I & II buildings (6534.35 sqm) including site development. <p>B. Residential buildings Including site development works:</p> <ol style="list-style-type: none"> 1. 01 no. Type-V Quarters (225 sqm) 2. 08 nos. Type-IV Quarters (808.70 sqm) 3. 08 nos. Type-III Quarters (582.80 sqm) 4. 08 nos. Type-I Quarters (477.15 sqm) 	<ol style="list-style-type: none"> 1. Completed & taken over by College Authorities. 1. Completed & taken over by College Authorities. 2. Completed & taken over by College Authorities. 3. Completed & taken over by College Authorities. 4. Completed & taken over by College Authorities.



<p>4. Andro Research Farm. EP(I)Ltd. Andro, Imphal East, Manipur.</p>	<p>A. Buildings:</p> <ol style="list-style-type: none"> 1. Multi-Disciplinary Laboratory (328 sqm) 2. 01 no. Type-IV Quarters (113.50 sqm) 3. 04 nos. Type-III Quarters (343.40 sqm) 4. Site development works like boundary walls, approach road, drainage etc. 	<ol style="list-style-type: none"> 1. Completed & taken over by College Authorities. 2. Completed & taken over by College Authorities. 3. Completed & taken over by College Authorities. 4. Completed & taken over by College Authorities.
<p>5. Central Agricultural University Headquarters Complex, Imphal, Manipur.</p>	<p>A. Buildings:</p> <ol style="list-style-type: none"> 1. Administrative Building (2452 sqm) 2. VC's Residence (358 sqm) 3. Guest House (1030 sqm) 4. Staff Quarters: <ol style="list-style-type: none"> a. 02 nos. Type-V Quarters (334 sqm) b. 06 nos. Type-IV Quarters (606 sqm) c. 10 nos. Type-III Quarters (720 sqm) d. 20 nos. Type-II Quarters (1200 sqm) e. Electrical Sub-station f. Site development like internal road, drainage, etc. 	<ol style="list-style-type: none"> 1. Completed & taken over by the University 2. Completed 3. Completed & taken over by the University 4. Staff Quarters: <ol style="list-style-type: none"> a. Completed b. In progress c. In progress d. In progress e. Completed f. Completed

7



Finance



Budget Allocation during 2016-17 (₹ In lakhs)

Sl. No	Head of Account	CAU (HQ)	DI	DR	DEE	HRF	COA	COV-SC	COF-SC	10	11	12	13	14	15	16	17	18	19	20	21	Total for 2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
A	RECURRING																					
(i)	Establishment Charges																					
a)	Pay & Allowances (inclusive other establishment charges)	383.47	120.00	127.00	110.00		1488.00	1400.00	664.00	850.00	500.00	794.86	700.00	32.00		13.29	7.38	16.00	44.00			7250.00
b)	Retiral Benefits	205.00		5.00			40.00															250.00
(ii)	Travelling Allowance	21.82	7.00	4.25	3.00		11.00	15.01	8.42	19.00	5.00	13.00	15.00					0.50	2.00			125.00
(iii)	Recurring contingency																					
a)	Miscellaneous Expenses	214.15	30.00	135.47	17.53	12.77	132.13	275.00	146.47	260.80	91.51	127.18	168.14	10.25	20.10	8.50	5.00	11.00	9.00			1675.00
b)	Fellowship/Scholarship	4.30					47.00	30.00	18.48	15.00	1.00	9.01	51.00	0.48	1.23	0.50	1.00					179.00
c)	H.R.D	6.19		1.00				0.30	1.00		0.50	2.01										11.00
d)	Advertisement & Publicity	0.81		1.28	30.00		1.00	1.49	2.00		0.50	1.50				1.25						39.83
e)	Adjunct/Visiting Professor	0.00							4.25		4.59	5.35	1.92			2.00		2.06				20.17
B	NON RECURRING																					
(i)	Equipment (including Machine, tools, live stock & land etc.)																					
a)	General	7.01		1.00				10.00	7.00	11.58	3.79	9.50	6.12	100.00	15.00	30.00	60.00	9.00	50.00			320.00
b)	Experiential Learning																					0.00
(ii)	Furniture & Fixture	52.93					1.37	15.00	5.00	8.23	2.58	18.29	20.60	10.00		5.00	7.00	5.00	39.00			190.00
(iii)	Vehicles																					0.00

FINANCE

Sl. No	Head of Account	CAU (HQ)	DI	DR	DEE	HRF	COA	COV-SC	COF	CO-HF	COH-SC	CO-AE & PHT	COP-GS	CO-FT Imp	COA Pa-Sikkim signat	COH Bara-pani ram	COA Mizo-ram	COH Naga-land	COVSC Total	Total Receipt for 2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
iv)	Library Books	23.27			0.50		2.00	2.56	0.50	0.50	0.59	1.48	4.00	8.00		5.00	4.00	3.00	4.60	60.00
v)	Information Technology	0.84					2.06	2.00	2.58	1.00		0.45	1.00	0.14		5.00		5.00	9.93	30.00
C	WORK/CONSTRUCTION																			
l)	Land (Purchase/Development)																			0
(ii)	Petty/Departmental/ARMO	102.30				4.22	25.00	57.00	53.00	81.30	34.63	45.00	30.00		1.55	28.00	25.00		23.00	510.00
iii)	Major Works																			
a)	Xth Plan Spill Over																			0.00
b)	XI Plan Works	116.35																		116.35
c)	XII Plan Works	1223.65																		1223.65
	TOTAL AMOUNT	2362.09	157.00	273.00	163.03	16.99	1749.56	1808.36	912.70	1247.41	644.69	1027.63	997.78	160.87	37.88	98.54	109.38	51.56	181.53	12000.00



Unit Wise Expenditure Incurred during 2016-17 (Rs. In lakhs)

Sl. No	Head of Account	CAU (HQ)	DI	DR	DEE	HRF	COA	COV-SC	COF	CO-HF	COH-SC	COAE & PHT	COP-GS	CO-FT Imp	COA Pa-sighat	COH Sik-kim	COA Bara-pani	COH Mizo-ram	COV-SC Nagaland	Total Expenditure up to March 2017
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
A. RECURRING EXPENDITURE																				
(i)	Establishment Charges																			
a)	Pay & Allowances (inclusive other establishment charges)	482.89	107.93	118.51	103.88		1405.24	1404.68	680.00	855.29	466.84	819.60	702.08	15.37		13.25	7.67	14.52	44.00	7241.75
b)	Retiral Benefits	213.68		9.32			21.65													244.65
(ii)	Travelling Allowance	25.67	4.27	2.56	1.49		9.84	16.33	9.78	19.24	6.16	10.89	13.28						0.55	120.06
(iii)	Recurring contingency																			0.00
a)	Miscellaneous Expenses	75.07	31.53	34.17	9.88	11.39	211.51	251.56	143.91	252.40	102.83	124.25	139.88	6.39	29.75	11.64	5.47	6.53	10.15	1458.31
b)	Fellowship/Scholarship						37.86	27.76	17.61	12.33	1.00	9.00	51.65	1.02	1.55	0.50	0.30			160.58
c)	H.R.D	0.21						0.43	0.43		0.18	1.52								2.77
d)	Advertisement & Publicity	4.47		1.28	17.58		1.41	0.17	2.00		0.50	1.14			0.77					29.32
e)	Adjunct/Visiting Professor								4.20		4.40	5.32	1.42					1.24		16.58
B. NON RECURRING EXPENDITURE																				
(i)	Equipment (including Machine, tools, live stock & land etc.)																			

FINANCE

Sl. No	Head of Account	CAU (HQ)	DI	DR	DEE	HRF	COA	COV-SC	COF	CO-HF	COH-SC	COAE & PHT	COP-GS	CO-FT Imp	COA-Pa-sighat	COH-Sik-kim	COA-Bara-pani	COH-Mizo-ram	COV-SC Naga-land	Total Ex-pen-diture up to March 2017
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
a)	General	1.32	0.42	0.98	8.18	27.49	3.79	16.42	7.60	6.26	2.89	63.43	32.16	16.76	33.31	245.74				
b)	Experiential Learning																			0.00
(ii)	Furniture & Fixture	18.59					14.00	26.21	5.00	10.23	2.58	18.29	44.62	4.90	7.73	5.07				201.37
(iii)	Vehicles																			0.00
iv)	Library Books			0.43			17.19	4.94	0.50	20.55	0.82	2.27	4.11	0.78	3.97	2.11	0.72			61.60
v)	Library Books (COA)																			
vi)	Information Technology						3.47	1.91	2.67	4.72	0.45	0.17	0.00	0.49	0.26					17.49
C.	WORK/CONSTRUCTION																			
I)	Land (Purchase/Development)																			0.00
(ii)	Petty/Departmental/ARMO	102.82					23.14	55.54	53.00	80.08	34.22	44.62	15.44	1.55	26.85					460.06
a)	Xth Plan Spill Over																			
b)	XI Plan New Proposals	116.35																		116.35
c)	XII Plan	2939.39																		2939.39
	TOTAL AMOUNT	3980.46	143.73	166.26	134.24	11.39	1745.84	1813.73	927.28	1282.33	623.32	1053.77	980.25	34.72	35.74	125.80	55.44	45.10	156.62	13316.02



Unit Wise Revenue Generation of the University for the year 2016-17 (Rs. In lakhs)

Sl. No.	Head of Account	CAU (HQ)	DI	DR	DEE	HRF	COA	COV-SC	COF	CO-HF	CO-SC	COAE & PHT	COP-GS	CO-FT Imp	COA-Pa-sighat	COH-Sik-kim	COA-Bara-pani	COH-Mizo-ram	COV-SC Naga-land	Total Revenue for 2016-17
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Academic Receipt	3.51	0.00	0.00	0.00	0.00	13.08	8.16	4.16	8.07	2.93	3.68	7.14	0.74	0	0	0.77	0	0.41	52.65
2	Interest on Bank Account	178.22	0.76	3.57	1.47	1.19	3.58	1.83	4.60	8.91	6.55	13.47	10.32	0.01	0.75	3.21	0.00	0	0	238.44
3	Income from Guest House	1.40	0.00	0.00	0.00	0.00	1.31	1.23	1.62	2.12	1.13	2.79	2.68	0.00	0.00	0.00	0.00	0.00	0.00	14.28
4	Photo Copiers Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.21	1.06	0.20	1.43	0.00	0.00	0.00	0.00	0.00	0.00	3.09
5	Sale Proceeds of farm Produce	0.00	0.00	0.41	0.00	0.52	7.90	26.82	0.62	2.81	0.30	1.79	0.13	0.00	0.00	0.00	0.00	0.00	0.09	41.39
6	Licence fee/Water/ Electricity Charges	0.00	0.00	0.00	0.00	0.00	2.86	1.18	2.25	3.51	1.52	0.45	3.36	0.00	0.00	0.00	0.00	0.00	0.00	15.13
7	Other Income not covered in above	42.65	0.05	0.00	0.00	0.00	0.00	1.10	0.88	1.88	0.34	4.95	1.08	0.00	0.00	0.00	0.00	0.00	0.00	52.93
Total Amount		225.78	0.81	3.98	1.47	1.71	28.73	40.32	14.32	27.51	13.83	27.33	26.14	0.75	0.75	3.21	0.77	0.00	0.50	417.91

Note : Income shown in HQ is exclusive of Revenue receipt from the Units. The above Revenue includes Bank Interest of Main and Revenue A/C., Institutional Charges, Registration Fee from Registrar Office, Recruitment Fee and other Miscellaneous Receipt of the HQ.

8



University Publications



DURING the reporting year, faculties of constituent colleges of the university have published 486 research literatures including 208 full length research and digital object identifier articles, 36 seminar proceedings, 66 papers presented in seminars, symposia, 80 popular articles, 11 books, 30 book chapters and 55 manuals/pamphlets etc. They are listed as under:

List of Scientific publication during 2016-2017:

8.1. Research Papers

8.1.1

College of Agriculture, CAU, Imphal

K. Nandini Devi and M. Sumarjit Singh (2016). Effect of cross ploughing on weed control of direct seeded rice in Manipur. *Agric. Sci. Digest* 36(1): 40-43.

Herojit Singh Athokpam, Vashainao Somiphang Zimik, Nandini Chongtham, K. Nandini Devi, Naorem Brajendra Singh, Linthoi Watham, P.T. Sharma and Haribushan Athokpam (2016). Profile distribution of micronutrient cations in citrus orchard of Ukhrul District, Manipur (India). *International Journal of Agriculture, Environment and Biotechnology*. 9(4):691-697

Bichitra Debbarma, Daya Ram, M.K. Singh and M. Deepa Devi (2016) Adoption Behaviour of System of Rice Intensification Technology by the farmers in Dhalai District of Tripura. *Research journal of Agricultural Sciences*, 7:501-505

Th. Deepa Devi, Daya Ram, M.Kunjaraj. Singh and N.Okendro Singh (2016) Assessment of Training Programmes Through Perception of KVK: A Profile of Trainees. *Agriways Multidisciplinary Journal* Vol.4(2):145-154

Punitha P., Pandey D.K., Feroze S.M. Singh R J, Ram D, Singh N.O. Jyothi SSP and Monika A (2016). Socio-Economic Profile and

Perceived Livelihood Diversification Choice of *Jhumias* of Manipur in North East India. *Progressive Research*, 11 (5): 4314-4319.

Rilangbor D., Daya Ram, M. Deepa Devi (2016) Information and Communication Technologies (ICTs) Exposure of the P.G. Students of Central Agricultural University Imphal, Manipur *Journal of Communication Studies* Vol. 43 (3):52-58

M.N. Singh, O.K. Raina, M. Sankar, Ajayta Rialch, M.N. Tigga, G. Ravi Kumar, P.S. Banerjee. (2016). Molecular detection and genetic diversity of *Babesia gibsoni* in dogs in India. *Infection, Genetics and Evolution*, 41: 100-106.

Susmita Das, K Nandini Devi, Herojit Singh Athokpam, Jamkhogin Lungdim, Mrinalini Longjam, (2016), Chickpea (*Cicer arietinum* L.) based intercropping system with rapeseed (*Brassica napus* L.) on growth, yield and competition indices. *Environment and Ecology* 35 (1B): 427-430.

B. Sinha, R.K. Padamini, PrameshKh and R. Joseph Koireng (2016). Effect of *Trichoderma* spp against anthracnose of Aloe vera caused by *Colletotrichum gloeosporoides* in Manipur. *Environment and Ecology*, 34(3): 901-904.

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Trina Sandham, PS Devi, Bireswar Sinha

- (2016) Native Trichoderma isolates and its impact on growth, fruit yield and disease management of chilli wilt in Manipur. *Journal of Mycopathological Research*, 54(3):423-426.
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- Kalita, H.C., Ram, V., Thakuria, D., Changkijah, S. and Saplaliana, H. (2016) Myths and facts of shifting cultivation in northeast India. *International Journal of Forest Usufructs Management*, 17 (2): 58-69.
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- Rani, G., Feroze, S.M., Singh, Ram and Sarkar, A. (2016) "How socially sustainable are the rice farms in mountains? Evidence from Senapati district of Manipur" *Economic Affairs*: 473-79
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- ### 8.1.3 College of Veterinary Sciences & Animal Husbandry, Selesih, Aizawl, Mizoram
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8.6.6 College of Fisheries, Lembucherra, Tripura

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8.6.7 College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

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8.9.3 College of Agricultural Engineering And Post Harvest Technology, Gangtok, Sikkim

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8.9.6 College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

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Visitors



CENTRAL AGRICULTURAL UNIVERSITY ANNUAL REPORT 2016-17

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HE university witnessed the visits of 85 eminent personalities at different college campuses located in seven states of the north East hill region of India during the year 2016-17. The visitors included eminent administrators, scientists, faculties, meritorious students and progressive farmers of varied experiences.

Sl. No.	Visitor's Name	Designation	Purpose of visit	Date of visit
1. College of Agriculture, Imphal, Manipur				
1.	Pandit Hariprasad Chourasia	Renowned Flutist	To attend SPICMACAY programme	09/03/2016
2.	Dr. T. Meinya Singh	Hon'ble M.P. Lok Sabha	Jury for Youth Parliament & Inauguration of Pineapple juice Mobile Van	30/08/2016
3.	Dr. Sanjay Kumar Tiwari	Delhi University	Jury for Youth Parliament	30/08/2016
4.	Dr. A. Bandopadhyay	Expert, CAU, Research Council	To review the research activities of CAU	28-29/10/2016
5.	Shri Radha Mohan Singh	Hon'ble Union Minister of Agriculture and Farmers' Welfare	Inauguration of College of Agriculture Auditorium, PG Hostel and CAU Regional Agri. Fair, 2016-17	10/11/2016
6.	Padma Bhushan Dr. R.B. Singh	Chancellor, CAU, Imphal.	To attend inaugural function of CAU Regional Agri. Fair, 2016-17	10/11/2016
7.	Dr. K.M. Bujar Baruah	Vice-Chancellor, AAU, Jorhat	To attend inaugural function of CAU Regional Agri. Fair, 2016-17	10/11/2016
8.	Dr. S.V. Ngachan	Director, ICAR, Research Complex for NEH Region, Umiam, Meghalaya	To attend inaugural function of CAU Regional Agri. Fair, 2016-17	10/11/2016
9.	Dr. D.K. Sharma	Director, NRC (Pig), Rani, Guwahati	To attend inaugural function of CAU Regional Agri. Fair, 2016-17	10/11/2016
10.	Dr. Abhijit Mitra	Director NRC Mithun, Jhamapani, Nagaland	To attend inaugural function of CAU Regional Agri. Fair, 2016-17	10/11/2016
11.	Dr. Bidyut C. Deka	Director, ATARI, ICAR Research Complex, Umiam	To attend inaugural function of CAU Regional Agri. Fair, 2016-17	10/11/2016
12.	Dr. Adya Prasad Pandey	Vice-Chancellor, Manipur University, Canchipur	To attend the Valedictory function of CAU Regional Agri. Fair, 2016-17	11/11/2016
2. College of Post Graduate Studies, Umiam, Meghalaya				
1.	Dr. A. A. Mao	Additional Director, Botanical Survey of India, Eastern Regional Centre, Shillong	Chief Guest of "International Day for Biological Diversity"	22/05/2016

VISITORS



Sl. No.	Visitor's Name	Designation	Purpose of visit	Date of visit
2.	Dr. O. P .Singh	Professor, Department of Environmental Studies, North Eastern Hill University, Shillong	Chief Guest of "World Environment Day"	05/06/2016
3.	Dr. S.K. Srivastava	Vice Chancellor, NEHU, Shillong	Chief guest of Inaugural program of ICAR Sponsored short course on ICT and Sustainable Agriculture Development	13/06/2016
4.	Dr. N.S. Rathore	DDG (Education), ICAR, New Delhi	Herbal Garden Inauguration	19/07/2016
5.	Dr. M.B. Chetti	ADG (HRD), ICAR, New Delhi	Chief guest of valedictory program of ICAR Sponsored short course on ICT and Sustainable Agriculture Development	22/06/2016
6.	Dr. Henry Lamin	ProVice-Chancellor, NEHU, Shillong	Chief Guest of Valedictory function of College Week.	06/10/2016
7.	Dr. K.R. Dhiman	Ex Vice-Chancellor, DR. YS Parmar University of Horticulture and Forestry, Solan	Official Visit	27/02/2017



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Sl. No.	Visitor's Name	Designation	Purpose of visit	Date of visit
8.	Dr. Sudha P. Rao	Chief Economic Adviser, Ministry of Rural Development, Krishi Bhawan, New Delhi	Visited Agro-advisory Laboratory	11/05/2016
9.	Dr. M.R. Anand	Sr. Adviser, DietY & MD & CEO, Media Lab Asia	Visited Agro-advisory Laboratory	11/05/2016
10.	Prof. S.K. Srivastava	Vice Chancellor, NEHU, Shillong	Visited Agro-advisory Laboratory	13/06/2016
11.	Dr. Sarvesh Kumar	Scientist, Agril. Extension, JNKVV, KVK-Harda (MP)	Visited Agro-advisory Laboratory	14/07/2016
12.	Dr. Arpita Sharma	Andhra Pradesh, GBPUA&T, Pantnagar,	Visited Agro-advisory Laboratory	14/07/2016
13.	Dr. Vijay Sharma	Asstt. Prof. Department of Agril. Extension R.B.S. College, Agra	Visited Agro-advisory Laboratory	14/07/2016
14.	Dr. G. Nagesha	Assistant Professor (Sr. Scale), Department of Agril. Extension, College of Agriculture, UAS, Bangalore, Karnataka	Visited Agro-advisory Laboratory	14/07/2016
15.	Dr. Christie Chang	University of New England, Australia	Visited Agro-advisory Laboratory	27/10/2016
16.	Dr. S. Chandhari	MD, NERCORMP, Shillong	Visited Agro-advisory Laboratory	17/11/2016
17.	Dr. U .Barman	Prof. Dept of Extension, AAU, Jorhat	Visited Agro-advisory Laboratory	20/12/2016
3. College of Veterinary Sciences & Animal Husbandry, Aizawl, Mizoram & College of Horticulture (Thenzawl), Mizoram				
1.	Shri Radha Mohan Singh	Union Minister of Agriculture & Family Welfare	Inauguration of College of Horticulture, Thenzawl, Mizoram	18/06/2016
2.	Mr. Zeliang	Chief Minister, Govt of Nagaland		
3.	Dr. Trilochan Mohapatra	Director General, ICAR		
4.	Dr. S. Bhaskar	ADG (Agron & Agroforestry), ICAR		
5.	Pu Lalthanliana	Minister of Agriculture, Govt of Mizoram		
6.	Pu Lalswata	Minister of Finance, Govt of Mizoram	Chapcharkut festival	02/03/2017



Sl. No.	Visitor's Name	Designation	Purpose of visit	Date of visit
4. College of Agricultural Engineering and Post Harvest Technology, Gangtok, Sikkim				
1.	Prof. N.S. Rathore	DDG (Education), ICAR, New Delhi	Chief Guest of International Conference on Emerging Trends in Science, Technology, Agriculture and Management-2016 & National Workshop on Soft Computing Modeling-Food Processing, Pharmaceutical Sciences and Export Management-2016	21/04/2016 to 23/04/2016
2.	Dr. R.P. Kaachru	Former ADG, ICAR, New Delhi	Expert Member of Board of Studies of CAEPHT, Gangtok	19/07/2016 to 21/07/2016
3.	Mr. Ramit Gupta	Integrated Casetech Consultants	Delivered a Guest Lecture on career opportunities and enriching the Agricultural Engineering as a profession	23/07/2016
4.	Mr. Abhinay Choudhury,	Founder member of Bigbasket.com	Delivered a Guest Lecture Employment opportunity to students of CAEPHT	07/10/2016



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Sl. No.	Visitor's Name	Designation	Purpose of visit	Date of visit
5. College of Fisheries, Lembucherra, Tripura				
1.	Shri S.S. Chaturvedi	IPS, ADG of Police, Tripura Police	Inaugural Programme of 4 th Inter-Collegiate Games & Sports Meet of CAU	16/02/17
2.	Shri Deepak Sharma	DIG, CRPF, Agartala, West Tripura		
3.	Shri Sudarshan Bhagat	Hon'ble Union Minister of State, for Agriculture and Farmers Welfare, Govt. of India	Closing Ceremony of the 4 th Inter-Collegiate Games & Sports Meet of CAU	19/02/17
4.	Dr. G.S.G. Ayyangar	Principal Secretary, Dept. of Agriculture, Govt. of Tripura		
5.	Shri. Abhijit Saptarishi	IPS, Superintendent of Police, West Tripura District	2-days Disaster Management Awareness –cum-Mock Drill” in support of the Mohanpur Sub-Divisional Administration	30/04/2016
6.	Shri. Sirshundhu Debbarma	TCS, In-Charge Sub-Divisional Magistrate, Mohanpur Sub-Division		
7.	Shri. Nanda Lal Das	TFS, Divisional Fire Officer, West Tripura		
8.	Dr. M.L. Bhowmik	Ex-Dean, College of Fisheries	Assessment Committee for evaluation of In-plant Training (B.F.Sc.)-External Examiner	30/05/16
9.	Mr. M.K. Preshow Shimray	Hon'ble Dy. Speaker Manipur Legislative Assembly	Official Visit	30/05/2016
10.	Dr. Shailesh Kumar Yadav	Jt Commissioner, Tax and Excise, Govt of Tripura	Inauguration of 3 Monthsskill development / vocational training on “Seed Production Technology of Carp, Magur and Giant Freshwater Prawn”	15/06/2016
11.	Mr. Arun Kumar	I.G.,C.R.P.F., Tripura & Mizoram	Official Visit	04/07/2016
12.	Padma Bhusan Prof. R.B. Singh	Hon'ble Chancellor, CAU	National Fish Farmers' Day	10/07/2016
13.	Mrs. Sushma Singh	Madam Chancellor		
14.	Shri Haricharan Das	National Fish Farmer Awardee (Tripura Imphal)		
15.	Dr. M.L. Bhowmik	Former Dean, College of Fisheries, CAU(I)		
16.	Shri Rameshwar Das	IFS, Secretary (Fisheries), Govt. of Tripura		

VISITORS

Sl. No.	Visitor's Name	Designation	Purpose of visit	Date of visit
17.	Dr. U. Singh	Dean, College of Fisheries, GBPUA&T, Pantnagar	5 th Board of Studies Meeting of College of Fisheries	10/08/2016
18.	Shri Ravideep Sahi	Inspector General CRPF Group Centre, Tripura	National Sports Day	29/08/2016
19.	Shri Abhijit Saptarshi	IPS Spdt. of Police (West), Govt. of Tripura	Inauguration of Hindi Pakhwa-da-2016	01/09/2016
20.	Chief Guest, Shri Rameshwar Das	Secretary, Dept. of Fisheries, Govt. of Tripura	Interface meeting	27/09/2016
21.	Dr. K.K. Barman	Joint Director, ICAR Research Complex, Tripura		
22.	Dr. S. Talukdar	Principal, College of V.Sc. & A.H. , Govt. of Tripura		
23.	Dr. M. Datta	Principal, College of Agriculture, Govt. of Tripura		
24.	Mr. Debashish Bhattacharya	DIG, CRPF, GC, Agartala	Inauguration of College Week -2016	30/09/2016
25.	Dr. Gopal Krishna	Vice-Chancellor/Director, ICAR-CIFE, Mumbai	College Foundation Day -2016	03/10/2016
26.	Dr. J.K. Jena,	DDG(Fy.) , ICAR	Short course on "Basic Technique on Molecular Biology & Bio Informatics"	24/10/2016
27.	Dr. Basant Kandpal,	Jt. Director ICAR Tripura centre	Closing Ceremony of Swachha Bharat Pakwada	16/10/2016
28.	Mr. Rahul Jain	Secretary, Film & Cultural Society, North East	Screening of Documentary Film Festival	01/11/2016
29.	Dr. M. Datta	Principal, College of Agriculture Govt. of Tripura	Inauguration of Training on "Capacity Building in Molecular Biology and Bioinformatics Techniques" (during 20-27, Feb., 2017)	20/02/2017
6. College of Horticulture & Forestry, Pasighat, Arunachal Pradesh				
1.	Mr. Ninong Ering	Hon'ble Member of Parliament (LS), Govt. of India	Attended Arunachal Agri Expo., 16 th Annual College Week of CHF and to attend 3 rd Inter-Collegiate Youth Festival	22/01/2017, 08/10/2016 and 26/11/2016
2.	Mr. Kaling Moyong	Hon'ble MLA, 38 Pasighat Constituency	Attended 16 th Annual College Week of CHF, and planting saplings world environment day	08/10/2016 and 05/06/2016



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Sl. No.	Visitor's Name	Designation	Purpose of visit	Date of visit
3.	Smt.Isha Khosla,	DC, East Siang District, Pasighat, Arunachal Pradesh	Attended 16 th Annual College Week of CHF	08/10/2016
4.	Mr. Kento Rina	Hon'ble MLA, Na-ri-Koyu Constituency	Guest for the Valedictory function on vocational training, attended Arunachal Agri Expo and 16 th Annual College Week of CHF and planting saplings on world environment day	29/03/2017, 21/01/2017, 08/10/2016 and 05/06/2016
5.	Dr. Jitendra Kumar,	Director, DMAPR, Anand, Gujarat	Attended Arunachal Agri Expo	21/01/2017 to 22/01/2017
6.	Prof. A.A. Dange	Hon'ble Vice-Chancellor, Apex Professional University, Pasighat	Attended 3 rd Inter-Collegiate Youth Festival	24/11/2016
7.	Shri Tayek Talom	Principal, Jawaharlal Nehru College, Pasighat	Attended 3 rd Inter-Collegiate Youth Festival	24/11/2016
8.	Prof. A.N. Maurya	Ex-Director, Institute of Agril. Science, Banaras Hindu University, Varanasi	Attended 7 th meeting of Board of Studies, State level workshop on spices and State Level Interface Meeting for Arunachal Pradesh and 6 th Meeting of Board of Studies	21/03/2017, 23/03/2017, 12/08/2016 & 22/08/2016
9.	Dr. K.K. Jindal	Ex-Director Research, CAU & UHF, Solan, Himachal Pradesh	Attended 7 th meeting of Board of Studies, State level workshop on spices and 6 th Meeting of Board of Studies	21/03/2017, 23/03/2017 and 22/08/2016
10.	Shri S. Sankarnarayanan	Director, NABARD, Itanagar	Attended State level workshop on spices	22/03/2017
11.	Mr. Kokom Darang	Joint Director (MCP), Directorate of Agriculture, Arunachal Pradesh	Attended 6 th Meeting of Board of Studies	12/08/2016
12.	Sri Tamiyo Tatak	Deputy Commissioner, East Siang District, Arunachal Pradesh	Attended Arunachal Agri Expo	21/01/2017
13.	Mrs. Y.J. Lego	Deputy Director of Agriculture, Pasighat, East Siang, A.P	Attended 6 th Meeting of Board of Studies	12/08/2016
14.	Shri Balmukund Pandey	Organizing Secretary, All India History Reforms Project, New Delhi	Attended world environment day	05/06/2016
15.	Prof. Binay Singh	Dean, NERIST, Nirjuli, Itanagar	Attended the world environment Day as Special invitee	05/06/2016
16.	Dr. Major Singh	Co-ordinator, AICRP (VC), IIVR, Varanasi	Guest Lecture	21/03/2017



APPENDIX



Board of Management

The list of members of the Board of Management is given below:

Ex-officio Chairman

Dr. M. Premjit Singh
Vice-Chancellor,
Ex-Officio Chairman under sub-clause (i)

Members

- 1. Secretary (Agriculture)**
Government of Manipur, Imphal
Ex-Officio Member under sub-clause (ii)
- 2. Secretary (Forests)**
Government of Arunachal Pradesh, Itanagar
Ex-Officio Member under sub-clause (ii)
- 3. Secretary (Fisheries)**
Government of Meghalaya, Shillong
Ex-Officio Member under sub-clause (ii)
- 4. Dr. Durg Singh Chauhan**
(Former Vice-Chancellor, UPTU, Lucknow)
Vice-Chancellor, G.L.A. University,
Mathura-281406
E-mail: pdschauhan@gmail.com
Member under sub-clause (iii)
- 5. Dr. Arvind Kumar**
Vice-Chancellor,
Rani Lakshmi Bai Central Agricultural
University,
Jhansi, Uttar Pradesh
E-mail: vcrlbcau@gmail.com
Member under sub-clause (iii)
- 6. Dr. Mohan Bhattacharya**
Former Director,
National Research Centre on Yak,
Arunachal Pradesh
Member under sub-clause (iii)
- 7. Dr. Natraj Hazong**
Vill. Andharkona, P.O. Garobhada
Via-Tura, Dist. South West Garo Hills,
Meghalaya 794105
Member under sub-clause (iv)
- 8. Deputy Director General (Edn)**
ICAR, Krishi Anusandhan Bhavan-II, Pusa,
New Delhi 110 012
Tel: 011 – 25841760(O) 25843932 (F)
Email: ddgedn@icar.org.in,
ddgedn@gmail.com
Ex-Officio Member under sub-clause (v)
- 9. Secretary**
North Eastern Council, Shillong, Meghalaya
Tel: 0364 – 2522644, 2522645 (O)
2522643 (F) 9436103348 (Mobile)
Email: secy-nec-meg@nic.in,
sect-nec-meg@nic.in
Ex-Officio Member under sub-clause (vi)
- 10. Dr. Ajay Kumar Pandey**
Dean, College of Horticulture & Forestry, CAU,
Pasighat, Arunachal Pradesh
Tel: 0368 – 2224887 (O) 2225066 (F)
Email: pandey.ajai1@gmail.com
Ex-Officio Member under sub-clause (vii)
- 11. Dr. S.S. Nagra**
Director of Instruction
Central Agricultural University, Imphal
Secretary under sub-clause (vii)
- 12. Shri Haokholet Kipgen**
President, Feed/KVK-Sylvan, Hengbung,
PO – Kangpokpi, Senapati District, Manipur
Tel. +91-3871-201001
E-mail: sylvankvk@rediffmail.com,
feedsmanipur@yahoo.co.in
Member under sub-clause (viii)
- 13. Shri Jakut Modi**
Napti Village, East Sinag District,
Arunachal Pradesh
Member under sub-clause (viii)
- 14. Dr. (Mrs.) Labanya Mazumdar**
Ex-Chairperson, Child Welfare Committee,
Jorhat & Ex-Dean, AAU, Joy Nagar, Jail Road,
Borbheta, Jorhat – 785004 (Assam)
E-mail: lmazumdar@rediffmail.com
Member under sub-clause (x)

APPENDIX

- 15. Dr. J.P. Mishra**
Advisor (Agriculture),
NITI Aayog, NITI Aayog Bhawan
National Institution for Transforming India
Government of India
Parliament Street, New Delhi 110 001
Telefax: 011-23096796
E-mail: adviser.agri-pc@gov.in,
mishrajaip@gmail.com
Ex-Officio member under sub-clause (xi)
- 16. Dr. Vijay Singh Thakur**
Vice-Chancellor
Dr. Y.S. Parmar University of Horticulture
& Forestry,
Nauni, Solan, Himachal Pradesh
E-mail: vcuhf@yahoo.com
Member under sub-clause (xii)
- 17. Shri Sanjay Bhoosreddy**
Joint Secretary (P & F)
Department of Animal Husbandry,
Dairying & Fisheries, Ministry of Agriculture,
Govt. of India,
Krishi Bhavan, New Delhi – 110001
Tel: 011-23382354 Fax: 23386674
E-mail: s_bhoosreddy@yahoo.com,
jspf-dadf@nic.in
Member under sub-clause (xiii)
- 18. Dr. S.K. Malhotra**
Horticulture Commissioner
Department of Agriculture & Cooperation
Ministry of Agriculture, Govt. of India,
New Delhi – 110001
E-mail: hortcommissioner@gmail.com
Member under sub-clause (xiii)
- 19. Dr. A.K. Vasisht**
ADG (PIM), ICAR
Krishi Bhavan, New Delhi – 110001
E-mail: sopim.icar@nic.in
Member under sub-clause (xiv)

Dr. K. Mamocha Singh

Registrar, Central Agricultural University, Imphal.
Email: regcau@yahoo.com, regcau@gmail.com
Ex-Officio Secretary under sub-clause (xv)

Academic Council

The list of the members of the Academic Council of the University is as under:

Dr. M. Premjit Singh
Vice-Chancellor,
Central Agricultural University, Imphal
Ex-officio Chairman Under sub-clause (i)

Members

- 1. Dean**
College of Agriculture
Iroisemba, Imphal, Manipur
Member under sub-clause (ii)
- 2. Dean**
College of Horticulture & Forestry
Pasighat, Arunachal Pradesh
Member under sub-clause (ii)
- 3. Dean**
College of Veterinary Sciences & A.H.
Selesih, Aizawl, Mizoram
Member under sub-clause (ii)
- 4. Dean**
College of Fisheries
Lembucherra, Agartala, Tripura
Member under sub-clause (ii)
- 5. Dean**
College of Home Science
Tura, West Garo Hills, Meghalaya
Member under sub-clause (ii)
- 6. Dean**
College of Agril. Engineering & P.H.
Technology, Marchak, Gangtok, Sikkim
Member under sub-clause (ii)



7. **Dean**
College of Post-graduate Studies
Barapani, Meghalaya
Member under sub-clause (ii)
8. **Director of Research**
Central Agricultural University,
Imphal
Member under sub-clause (iii)
9. **Director of Extension Education**
Central Agricultural University,
Imphal
Member under sub-clause (iv)
10. **Director of Instruction**
Central Agricultural University,
Imphal
Member under sub-clause (v)
11. **Librarian**
College of Horticulture & Forestry
Pasighat, Arunachal Pradesh
Member under sub-clause (vi)
12. **Dr. Nawab Ali**
Ex-DDG (Engg), ICAR
H.No. 40, Super Deluxe, Menal Residency
J.K. Road, Bhopal-462013,MP
Member under sub clause (vii)
13. **Dr. Gaj Raj Singh**
Ex-DI & Dean
College of Veterinary & A.H, Aizawl,
Flat. No.501, Surya Apartments
Sector-55,Gurgaon-122002,Haryana,
Member under sub-clause (vii)
14. **Head**
Department of Vegetable Science
College of Horticulture & Forestry
Pasighat, Arunachal Pradesh
Member under sub-clause (viii)
15. **Head**
Department of Agronomy
College of Agriculture
Iroisemba, Imphal, Manipur
Member under sub-clause (viii)
16. **Head**
Department of Livestock Production and
Management
College of Veterinary Sciences & A.H.
Selesih, Aizawl, Mizoram
Member under sub-clause (viii)
17. **Head**
Department of Fish Processing
Technology,
College of Fisheries
Lembucherra, Agartala, Tripura
Member under sub-clause (viii)
18. **Head**
Department of Home Science Extension
Education.
College of Home Science
Tura, West Garo Hills, Meghalaya
Member under sub-clause (viii)
19. **Head**
Department of Soil & Water Engineering,
College of Agril. Engineering & P.H.
Technology
Marchak, Gangtok, Sikkim
Member under sub-clause (viii)
20. **Head/In charge**
Department of Crop Improvement
College of Post Graduate Studies
Barapani, Meghalaya
Member under sub-clause (viii)
21. **Nominee of North-Eastern Council,**
Shillong, Meghalaya
Member under sub-clause (ix) .

Ex-officio Secretary

Dr. K. Mamocha Singh.

Registrar, Central Agricultural University,
Imphal, Manipur.

Ex-officio Secretary Under sub-clause (x)

APPENDIX

Research Council

The members of the Research Council of the University are as follows:

Ex-officio Chairman

Prof. M. Premjit Singh

Vice-Chancellor,
Central Agricultural University,
Imphal, Manipur.

Ex-officio Chairman Under sub-clause (i)

Members

1. **Director**
Directorate of Instruction
Central Agricultural University, Imphal
Ex-officio Member under sub-clause (iii)
2. **Director**
Directorate of Extension Education
Central Agricultural University, Imphal
Ex-officio Member under sub-clause (ii)
3. **Dean,**
College of Agriculture, Iroisemba, Imphal
Ex-officio Member under sub-clause (iv)
4. **Dean**
College of Horticulture & Forestry,
Pasighat, Arunachal Pradesh
Ex-officio Member under sub-clause (iv)
5. **Dean**
College of Veterinary Sciences & Animal
Husbandry, Aizawl, Mizoram
Ex-officio Member under sub-clause (iv)
6. **Dean**
College of Fisheries, Lembucherra,
Agartala, Tripura
Ex-officio Member under sub-clause (iv)
7. **Dean**
College of Home Science, Tura, west
Garo Hills, Meghalaya
Ex-officio Member under sub-clause (iv)
8. **Dean**
College of Agril. Engg. & Post Harvest
Technology, Gangtok, Sikkim
Ex-officio Member under sub-clause (iv)
9. **Dean**
College of Post Graduate Studies,
Barapani, Meghalaya
Ex-officio Member under sub-clause (iv)
10. **Director**
Directorate of Agriculture, Government
of Manipur, Imphal
11. **Director**
Directorate of Horticulture, Government
of Arunachal Pradesh, Itanagar
12. **Director**
Directorate of Fisheries,
Government of Tripura, Agartala
13. **Director**
Directorate of Animal Husbandry &
Veterinary, Government of Mizoram,
Aizawl
14. **Addl. Principal Chief Conservator of
Forests (R&T)**
Govt. of Meghalaya, Shillong
15. **Dr. A. Bandyopadhyay**
(External Member)
National Coordinator (Component 4),
NAIP Room No. 510, Krishi Anusandhan
Bhawan-II PUSA Campus,
New Delhi-110012
16. **Dr. R.B. Deshmukh**
(External Member)
Former Vice Chancellor (MPKV)
RAJ' Bungalow, Plot No. 46,
Vrindavan Sector A/B Co. Op. Hsg. Society
Panchavati, Pashan, PUNE-411008
17. **Director**
Directorate of Food Security &
Agricultural Development, Government
of Sikkim, Gangtok
18. **Research Co-ordinator & Member**
Secretary, College Research Advisory
Committee (CRAC) College of
Agriculture, Iroisemba, Imphal



19. **Research Co-ordinator & Member**
Secretary, CRAC, College of Horticulture
& Forestry,
Pasighat, Arunachal Pradesh
20. **Research Co-ordinator & Member**
Secretary, CRAC
College of Veterinary Science & A.H.
Selesih, Aizawl, Mizoram
21. **Research Co-ordinator & Member**
Secretary, CRAC
College of Fisheries, Lembucherra,
Agartala, Tripura
22. **Research Co-ordinator & Member**
Secretary, CRAC
College of Home Science, Tura,
West Garo Hills, Meghalaya
23. **Research Co-ordinator & Member**
Secretary, CRAC
College of Agril. Engineering & P.H.
Technology, Marchak, Gangtok, Sikkim
24. **Research Co-ordinator & Member**
Secretary, CRAC
College of Post-Graduate Studies
Barapani, Meghalaya
25. **Director**
ICAR Research Centre for NEH Region,
Barapani, Meghalaya
26. **Joint Director**
ICAR Research Centre for NEH Region,
Arunachal Pradesh Centre, Basar,
Arunachal Pradesh
27. **Joint Director**
ICAR Research Centre for NEH Region,
Manipur Centre, Lamphel, Imphal
28. **Joint Director**
ICAR Research Centre for NEH Region,
Mizoram Centre, Kolashib, Mizoram
29. **Joint Director**
ICAR Research Centre for NEH Region,
Nagaland Centre, Medziphema,
Nagaland
30. **Joint Director**
ICAR Research Centre for NEH Region,
Sikkim Centre, Gangtok, Sikkim
31. **Joint Director**
ICAR Research Centre for NEH Region,
Tripura Centre, Lembucherra, Tripura
32. **Shri S. Jugindro Singh**
Yairipok Yambem, Imphal East,
Manipur
33. **Mr. C. Kapzela**
Valley, Zarkawt, H/No. C-3/B,
Aizawl, Mizoram, Pin-796009
34. **Shri Bupen Hajong,**
Vill-Bhoirakupi, PO-Zikzak, South West
Garo Hills, Meghalaya
35. **Shri Karma Dichen Bhutia,**
President, Farmer Producers'
Organization, Rumtek, Sajong-737135
(Sikkim)
36. **Mr. Sunil Sarkar,**
Vill : Hospital Para (Bagan Tilla),
P.O. S.D. Mission (via A.D. Nagar),
Dukli, Sadar Sub-Division,
Tripura West-799003

Ex-officio Secretary

Dr. C.A. Srinivasamurthy
Director of Research, Central Agricultural University, Imphal, Manipur.

Extension Education Council

The members of the Extension Education Council of the University are as under:

Ex-officio Chairman

Dr. M. Premjit Singh/ His Nominee
Vice-Chancellor, Central Agricultural University, Imphal, Manipur

APPENDIX

Members

1. **Director of Research**
Central Agricultural University,
Imphal
Ex-Officio Member under sub-clause (ii)
2. **Director of Instruction**
Central Agricultural University,
Imphal
Ex-Officio Member under sub-clause (iii)
3. **Dean**
College of Agriculture
Iroisemba, Imphal, Manipur
Member under sub-clause (iv)
4. **Dean**
College of Horticulture & Forestry
Pasighat, Arunachal Pradesh
Member under sub-clause (ii)
5. **Dean**
College of Veterinary Sciences & A.H.
Selesih, Aizawl, Mizoram
Member under sub-clause (iv)
6. **Dean**
College of Fisheries
Lembucherra,
Agartala, Tripura
Member under sub-clause (iv)
7. **Dean**
College of Home Science
Tura, West Garo Hills, Meghalaya
Member under sub-clause (iv)
8. **Dean**
College of Agril. Engineering & P.H.
Technology, Marchak,
Gangtok, Sikkim
Member under sub-clause (iv)
9. **Dean**
College of Post-Graduate Studies
Barapani, Meghalaya
Member under sub-clause (iv)
10. **Director of Agriculture**
Govt. of Manipur,
Imphal
Member under sub-clause (v)
11. **Director of Horticulture**
Govt. of Arunachal Pradesh, Itanagar
Member under sub-clause (v)
12. **Director of Fisheries**
Govt. of Tripura, Agartala
Member under sub-clause (v)
13. **Director of Animal Husbandry & Veterinary**
Govt. of Mizoram, Aizawl
Member under sub-clause (v)
14. **Chief Conservator of Forests**
Research & Planning,
Govt. of Meghalaya, Shillong
Member under sub-clause (v)
15. **Director**
Food Security & Agriculture
Development
Govt. of Sikkim, Gangtok
Member under sub-clause (v)
16. **Shri Pumte Perme**
Village Ayeng
District: East Siang, Arunachal Pradesh
Member under sub-clause (vi)
17. **Shri S. Jogendra Singh**
Yairipok, Yambem, Imphal East,
Manipur
Member under sub-clause (vi)
18. **Shri C. Kapzela**
Zarkawt, East Khasi Hills, Meghalaya
Member under sub-clause (vi)
19. **Shri Beskoshon Kharchandy**
Village Kyiem
East Khasi Hill, Meghalaya
Member under sub-clause (vi)
20. **Shri D.N. Sapkota**
Ahu Village, P.O. ranipool
East District, Sikkim – 737135
Member under sub-clause (vi)
21. **Shri Shreemanta Das**
Progressive Farmer and Chairman, Bagoba
Panchayat Samit R.D. Block
Vill. Belonia Vidyapith Tilla
Belonia, South Tripura
Member under sub-clause (vi)



22. **Dr. A.G. Sawant**

Ex-Vice-Chancellor, KKV, Dapoli &
Ex-Member, ASRB
Shrimad Gangsngiri
Plot no. 13, Sahawas Co-operative Housing
Society, Karvenagar, Pune, Maharashtra.
Member under sub-clause (vii)

23. **Dr. R.R. Hanchinal**

Ex-Vice-Chancellor, UAS, Dharwad
Chairperson, Protection of Plant Varieties
& Farmers Right Authority, Ministry of
Agriculture, Govt of India, 2nd Floor,
Societies Block, NASC Complex, DPS Marg,
New Delhi
Member under sub-clause (vii)

Ex-officio Secretary

Dr. M. Premjit Singh/His Nominee
Director of Extension Education, Central Agricultural University, Imphal, Manipur.

Finance Committee

The members of the Finance Committee of the University are given below:

Ex-officio Chairman

Dr. M. Premjit Singh/ His nominee
Vice-Chancellor, Central Agricultural University, Imphal, Manipur

Members

1. **Financial Advisor**

Department of Agricultural Research and Education Government of India,
Krishi Bhavan, New Delhi

2. **Dr N.S. Rathore**

Deputy Director General (Education)
ICAR, KAB-II, Pusa, New Delhi 110012

3. **Shri B.S. Ramaswamy**

Additional Secretary & Financial Advisor (Retd.)
Minister of Steel and Mines, Govt. of India, 140, Mandakini Enclave, Alaknanda,
New Delhi-110019

4. **Shri P.K. Goswami**

Former Vice-Chancellor, Assam Science and Technology University,
Guwahati-781019

5. **Shri B.S. Bisht**

Former Vice-Chancellor, GBPUA&T, Director, Birla Institute of Applied Sciences,
Bhimtal (Uttarakhand)-263136

6. **Shri A.R. Sengupta**

Deputy Secretary, Department of Agricultural Research and Education
Ministry of Agricultural and Farmers Welfare, Room No. 206, D-Wing,
Krishi Bhawan, New Delhi-110001

7. **Mrs. Marwein, N.G.**

Finance Officer, North Eastern Hill University,
Shillong (Meghalaya)-793022

APPENDIX

Member Secretary

7. **Shri M.C. Jublani**
Comptroller
Central Agricultural University,
Imphal

Statutory Officers

The list of Statutory Officers of the university is cited underneath:

Visitor

Shri Pranab Mukherjee
Hon'ble President of Republic of India

Chancellor

Dr. R.B. Singh
President, NAAS & Former Director, IARI

Vice-Chancellor

Dr. M. Premjit Singh

Director of Instruction

Dr. S.S. Nagra

Director of Research

Dr. C.A. Srinivasamurthy

Director of Extension Education

Dr. M. Premjit Singh

Registrar

Dr. K. Mamocho Singh

Comptroller

Shri M.C. Jublani (I/C)



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Deans of Colleges

Dr. J.M. Laishram

College of Agriculture, Iroisemba, Imphal, Manipur

Dr. D. Kathiresan

**College of Veterinary Sciences & Animal Husbandry,
Selesih, Aizawl, Mizoram**

Dr. P.K Pandey

College of Fisheries, Lembuchera, Agartala, Tripura

Dr. Ajay Kumar Pandey (I/C)

College of Horticulture & Forestry, Pasighat, Arunachal Pradesh

Dr. Puspita Das (I/C)

College of Home Science, Tura, Meghalaya

Dr. P.K. Srivastava

(Upto 21-10-2016)

Dr. R.P. Mishra

(From 22-10-2016)

**College of Agricultural Engineering & Post Harvest Technology,
Ranipool, Gangtok, Sikkim**

Dr. N.B. Singh

College of Post Graduate Studies, Umiam (Barapani), Meghalaya





