

ANNUAL REPORT

2014 - 2015



MAHATMA PHULE KRISHI VIDYAPEETH

Rahuri - 413 722, Dist. Ahmednagar (Maharashtra)

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FOREWORD

The Annual Report of Mahatma Phule Krishi Vidyapeeth, Rahuri for 2014-2015 recounts the year long activities and programmes in the fields of Education, Research and Extension. It is the result and fruits of the toil of the faculty, scientists,, officials, employees, workers and students of this University. Introduction of new academic programmes, projects and schemes, and construction of new buildings, new publications and new administrative decisions and resolutions went hand in hand with the progress of the University despite several odds. His Excellency Hon'ble Governor of Maharashtra and the Chancellor of the University, Hon'ble Minister for Agriculture and Pro-Chancellor of the University, the Director General of Indian Council of Agricultural Research, New Delhi and the Executive Council Members of the University immensely supported the efforts and the entire University is grateful to them for their support, guidance and help from time to time.

During the year 8178 students received their degrees at the 30th Convocation for Undergraduate, Post-Graduate and Ph. D. Degree Programmes. There were 13 JRF and 3 SRF at the Post-Graduate Institute, Mahatma Phule Krishi Vidyapeeth, Rahuri. A majority of the students have secured scholarship from various agencies. Apart from their wonderful performance in the Extra-Curricular and Co-Curricular Activities, many students of the University have joined the Maharashtra Government Services through the MPSC and a good number of students have joined the Private Sector. A few of them have opted for self-employment.

Out of the research work through various departments, research projects and schemes several new varieties of crops, farm implements, and Technology recommendations were released for the benefit of the farmers. Seeds and Grafts of various field crops and plantation crops were produced and distributed to the farmers. Students of the University too participated in the research activities of the University.

Mahatma Phule Krishi Vidyapeeth, Rahuri has been the most credible source of information and farm advisory for the farmers of the region. Therefore, hundreds of farmers visit the Central Campus and other Colleges and Research Stations. The faculty and the scientists of the University guide them through the actual fields and laboratories and convince them of the Technologies generated at the University for their socio-economic benefit through various programmes and publications. The response of the farmers is quite encouraging and satisfactory.

The Annual Report and all the efforts of the entire Mahatma Phule Krishi Vidyapeeth, Rahuri are dedicated to the farmers and the rural community.

(T. A. More)





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1. Salient Achievement

Mahatma Phule Krishi Vidyapeeth, Rahuri established in 20th Oct. 1969 has been a center of human resource development to meet the growing demands of the state as well as the nation for trained man power specialized in Agriculture. This is one of the four Agricultural universities in the state with its jurisdiction spread over Western Maharashtra covering 10 districts, viz., Kolhapur, Sangli, Satara, Solapur, Pune, Ahmednagar, Nasik, Dhule, Jalgaon and Nandurabar.

The unique feature of this university's jurisdiction is that, it has extreme agro-climatic conditions of Farming. Four out of the nine agro-climatic zones of Maharashtra fall in this region. These are Western Ghat Zone, sub-Mountain Zone, Western Maharashtra Plain zone and Scarcity Zone. The total geographical area distributed among the ten districts of this university is 116.12 lakh ha (37.5 percent of total geographical area of the state). Out of this, 72.45 lakh ha area is under cultivation. The total irrigated area is 13.17 lakh ha (18.17 percent). However, a large area of this university comes under drought prone zone (approx. 80.00 percent of the state). The main objective of MPKV is to co-ordinate Agril. Education, Research and Extension activities.

1.1 Education

Mahatma Phule Krishi Vidyapeeth is imparting education from diploma to doctoral level in the field of Agriculture and allied faculties through its constituent and affiliated schools and colleges. Some of the salient achievements are :

1. The university is imparting graduate level education in Agriculture and allied subjects through five constituent colleges viz Colleges of Agriculture, Pune, Dhule, Kolhapur, Karad and Nandurbar, Dr. Annasaheb Shinde College of Agricultural Engineering, Rahuri and College of Horticulture, Pune. The intake capacity of students at the constituent undergraduate colleges was 724.
2. As per the new education policies, 61 affiliated colleges are functioning for imparting the Agricultural & allied education in university jurisdiction. It includes 26 Agricultural, 04 Horticulture, 08 Food Science, 08 Agril. Business Management, 06 Agril. BioTechnology, 08 Agricultural Engineering and 01 Animal Husbandry colleges.
3. The intake capacity of the students at the affiliated colleges for B.Sc. (Agri.) course was 2340, B.Sc. (Hort.) 200, B.Tech. (Agril. Engg.) 440, B.Sc (Agri. Bio.Tech.) 360, BBM (Agri.) 400 and B.Tech. (Food Tech.) 440, Animal Husbandry 30, A total of 4210 students were admitted in the first year.
4. The intake capacity of the students for Doctoral Degree Programme was 81 and Master Degree Programme was 242 for Agriculture, 70 for Horticulture, 8 for Bio Technology, 30 for MBA , 6 for BBA and 16 for Agricultural Engineering .
5. 14 students were from other states & 2 students were foreign students admitted for M.Sc. degree programme.
6. During the year 2014-15, 13 students were in receipt of Junior Research fellowship & 3 Senior Research Fellowship.
7. A lecture on "Time Management Competitive Examination Guidance & Positive Thinking" was delivered by Dr. Sachin Parab, Medical Researcher & Corporate Trainer and his team.
8. A one day workshop on 'Stress Management' and 'Positive Thinking' by Dr. Sachin Parab, Medical Researcher and mindset consultant & trainer has been arranged for the benefit of staff of Post Graduate Institute, MPKV, Rahuri.
9. Shri. Vijay Chormare Editor, Maharashtra Times, Kolhapur delivered a lecture on 'Political Changing Situation in India and Maharashtra'.
10. Shri. Suresh Khanapurkar Director, Watershed Project, Dhule delivered a lecture on Drought in Maharashtra and Shirpur Pattern .
11. Shri. Abhay Tilak Director, Bharati Arth Vidyan Vardhani, Pune delivered a lecture on 'Today's Economy and Further Strategies'.
12. Shri. Indrajeet Deshmukh Joint Commissioner, Pune delivered a lecture on 'Role of Youth in Nation Development'.
13. A guest lecture of Dr. S.C.Kotur, Ex. Principal Scientist, India Institute of Horticulture Research, Hissargatta, Bangloru (KA) on "Nutritional



Management of Banana” was organized by the Department of Soil Science and Agril. Chemistry, MPKV, Rahuri.

14. A guest lecture of Dr.D.R.Biswas, Principal Scientist, Division of Soil Science and Agril. Chemistry, IARI, New Delhi and Secretary, ISSS, New Delhi on “Enrichment of Compost for Improved Nutrient Supply” was organized by the Rahuri Chapter of Indian Society of Soil Science by the Department of Soil Science and Agril. Chemistry, MPKV, Rahuri.
15. A lecture on ‘Success in Your hands’ by Ms. Archana Bhor and Shri Shrikar Pardeshi, IAS, DIG Revenue, Pune was organized by College of Agriculture, Pune for staff and students.
16. A team of 8 delegates from Trade & Investment in Agriculture, UK visited HiTech. Project, Bio-Control Lab, Bio-Technology Centre and Bio Fertiliser Unit and Horticulture Section of College of Agriculture, Pune and discussed issues of Agricultural Technology, Dairy, Irrigation, Farming and related issues with all heads of sections
17. At the 30th Convocation, 8178 students were conferred the different degrees. The following students were awarded Gold Medals for their academic achievements.

Sl. No.	Name of the Award	Recipient
	M.Sc. (Agri.)	
1.	Principal V.G. Gokhale, <i>Gold Medal</i> to a student standing first in the University at the M.Sc.(Agri.)Degree examination in the discipline of Agronomy	Miss. Patil Priyanka Chandrakant
2.	Hexamer Foundation, Gold Medal to a student standing first in the University at the M.Sc. (Agri.) Degree examination in the discipline of Plant Pathology	Miss. Tekale Muktabai Vishwanath
3.	Late Rajaram G. Patil Nasik, Gold Medal to a student of M.Sc. (Agri.) standing first in the subject of Seed Science & Technology.	Shri. Jagtap Sandeep Janardhan
4.	Jindal Jubilee, Gold Medal to a student securing highest marks with 75% minimum in the final year M.Sc. (Agri.) in Soil Science and Agril. Chemistry	Shri. Gaikwad Abhay Arjun
5.	Krishibhushan Hiralal Onkar Patil, Gold Medal For Agricultural Botany (P.G.), Plant Physiology	Shri. Pawal Sakharan Nivrutti
6.	BSS Suresh Agrawal Gold Medal to be awarded to the student Stood first at M.Sc. (Horti) in Vegetable Science	Miss. Shinde Anjanee Madhukar
7.	Brig. Anil Adlakha Gold Medal to be awarded to the student stand first at M.Sc. (Agri.) in Genetics and Plant Breeding	Shri. Bhosale Amit Ashok
8.	Late Vatsala Bhaskar Pawar Gold Medal to a student who secures highest marks at the M.Sc. (Agri.) in Genetics and Plant Breeding	Shri. Bhosale Amit Ashok
9.	Sahakar Maharshi Bhausaheb Santoji Thorat Gold Medal to the student who stood first in the subject of “Dairy Science” in M.Sc. (Agri.)	Shri. Vilhekar Chandrashekhar Prabhakar
10	Late Madhavrao Balwantrao Pawar Gold Medal to the student who stood first in the subject of “Animal Science” in M.Sc.(Agri.)	Shri. Argade Sagar Bhagwat



18. A delegation of 25 German Agricultural Group visited the college campus and discussed regarding Agricultural research and specific requirements of climate etc. in India. The team visited Hi-Tech. Project, Bio-Fertilizer unit, Crop Cafeteria, Bio-Technology Lab, Watershed Park and other sections and had interactions with all head of sections, College of Agriculture, Pune .
19. A training programme was jointly organized by MPKV and National Institute of Agril. Extension Management (MANAGE), Hyderabad at College of Agriculture, Pune on Application of ICTs in Modified Extension Reforms in which JRA/ SRA and Assistant Professors (40) and officers participated.
20. In the year 2014-15 Shri. Abasaheb Deshmukh. College of Agriculture, Kolhapur received "State level NSS Best Volunteer" award.
21. To explore the opportunities in Agriculture Research, Education and Extension a lecture of Dr. Yogesh Thorat Scientist in ICAR was arranged. Along with this, Mr. Sandeep Kadam who is engaged in export import trading of sugar also delivered a lecture on business opportunities to Agriculture Graduates. Both these programmes were arranged at the College of Agriculture, Kolhapur.
22. Two days training was organized at College of Agriculture, Kolhapur for 500 students on Personality Development Plus, Self Leadership, Public Speaking & Presentation Skill, Time Management and Stress Management.
23. In all 29 students were successful in the JRF Examinations, and four students in AIAEE-SRF. Three PG Students secured rank in SRF examination from the College of Agriculture, Kolhapur.
24. Students of College of Agriculture, Kolhapur secured jobs in private sector and through the competitive examinations. In all 68 students secured jobs on various posts i.e. 3 students as a Niab Tahsildar, 7 Students as a PSI, 5 candidates in Sanjay Nursery PVT Ltd., Pune. 11 students were selected in Du-Pont Crop Protection Pvt. Ltd,
- 21 students were qualified in AIAEE-JRF. and 21 students were selected as Agriculture Officers through IBPS.
25. The peer review team under the Chairmanship of Dr. Anwar Alam and other team members Dr.K. P. Tripathi member secretary, Dr. T. K. Adhya, Dr. B. P. Nandwa, Dr. Rekha Dayal and Vice Chancellor, MPKV, Rahuri Dr. T. A. More visited the college campus to review different activities at all the sections, hostels and library of the College of Agriculture, Kolhapur.
26. Accreditation Committee visited the college during April 5-6, 2014 along with Dr. B. R. Ulmek, Dean MPKV, Rahuri. They appreciated the work carried out at the College of Agriculture, Dhule.
27. Dr. K. D. Kokate, DEE, Dr. R.S.Patil, DOR, MPKV, Rahuri and Dr. J. V. Patil, Director of Sorghum Research, Hyderabad visited KVK and College of Agri.cultuer, Dhule to reviewed the on going activities.
28. Swachha Bharat Abhiyan was organized by by the Constituent Colleges i.e. Post Graduate Institute and Dr. A.S.College of Agril. Engg., MPKV, Rahuri, College of Agriculture, Pune/ Dhule/Kolhapur/Karad/Nandurbar and Affiliated Colleges. On this occasion a rally was organized, and students and staff were given the oath of Swachhata. On this occasion competitions like debate and elocution, essay writing, poster making competitions were organized.
29. To create awareness among the students and parents regarding the Agriculture education after HSC, the Agril. Education Day was organized by the Constituent Colleges i.e. Post Graduate Institute and Dr. A.S.College of Agril. Engg., MPKV, Rahuri, College of Agriculture, Pune/ Dhule/Kolhapur/Karad/Nandurbar and Affiliated Colleges. Practicals of yoga was organised by yoga experts and a lecture on "Importance of Yoga in Personality Development of Students" was arranged at the College of Agri.cultuer, Karad.
30. The College of Agriculture, Karad arranged Educational Tour of 10 days within Maharashtra State to visit the four State Agricultural Universities



and Research stations.

31. Hon. Tushar Pawar, Ex. Council Member, Dr. B.R. Mulik, Member of MCAER, Dr. T.A. More, Vice-Chancellor and Dr. B.R. Ulmek, Dean F/A & Director of Instruction, visited and reviewed the on going activities of the College of Agriculture, Karad.

32. National Malaria Removal Campaign was organised at College of Agriculture, Nandurbar

33. Participation of Mahatma Phule Krishi Vidyapeeth, Rahuri in the Inter University Tournament

Sl. No.	Event	Date	University
01	Chess	27 to 30 Oct. 2014	Gujrat Sport University, Gandhi Nagar
02	Cricket (Men)	22 Nov. to 06 Dec. 2014	Baraktulla University, Bhopal
03	Badminton (Men)	06 to 09 Nov. 2014	Rajiv Gandhi Prayogik University, Bhopal
04	Mallkhamb	15 to 19 Dec. 2014	Laxmibai National Institute of Physical Education, Gwalior
05	Football	22 to 27 Dec. 2014	Laxmibai National Institute of Physical Education, Gwalior
06	Weight lifting & Best Physique	06 to 09 Jan. 2015	Punjab Technical Vishvavidyalaya, Jalandar, Punjab

35. The 11th Maharashtra State Inter University Cultural Youth Festival "Indradhanushya 2014"

The Maharashtra State Inter University Cultural Youth Festival "Indradhanushya 2014" was organized from 5th to 9th November, 2014 at Saint Gadge Baba Amravati University, Amravati. A team of Mahatma Phule Krishi Vidyapeeth, Rahuri participated in this Cultural Youth Festival. Shri. Premraj Chavan has secured 2nd prize in the elocution competition .

36. The 18th Maharashtra State Inter University Krida Mahostav (Ashwamedh 2014-15)

The 18th Maharashtra State Inter University Krida Mahostav was organized at Dr. Babasaheb Ambedkar Marathwada University Aurangabad from 27th November to 1st December 2014. The following teams of MPKV, Rahuri participated in Krida Mahostav 2014-15.

1) Kho Kho (M) 2) Kho Kho (W) 3) Volley Ball (M) 4) Volley Ball (W) 5) Kabaddi (M) 6) kabaddi (M) 7) Basket Ball (M) 8) Basket Ball (W) 9) Athletic (M) 10) Athletics (W) 11) Fencing (M) 12) Fencing (W) all the above teams performed very well in the Krida Mahostav. The team of Fencing (women) stood third in the competition and Miss Asmita Ashok Dudhare & Miss Aishvarya Ramesh Pote secured individual second prize in the fencing competition

37. Agril. Technical School

Kho-Kho (Boys)

First and second	Name of winner District
Winner	Solapur
Runner	Kolhapur

Kho-Kho (Girls)

First and second	Name of winner District
Winner	Pune
Runner	Solapur

Volley Ball (Boys)

First and second	Name of winner District
Winner	Ahmednagar
Runner	Kolhapur

Volley Ball (Girls)

First and second	Name of winner District
Winner	Solapur
Runner	Pune



1.2 Research

1. The university has released 11 new varieties i.e. Rabi sorghum (Phule Rohini and Phule Madhur), Sweet Sorghum (Phule Vasundhara), Bajra (Aadishakti), Little millet (Phule Ekdashi), Cowpea (Phule Vithai), Horse Gram (Phule Sakas), Sunflower (Phule Bhaskar), Pomegranate (Phule Anardana), Fig (Phule Rajewadi) and Lettuce (Phule Padma)
2. The university has released three Agri. Farm Implements i.e. *Phule Kadba Kutti yantra*, *Phule PVC Bhat Lavani Chokat* and *Sugarcane Bandhani yantra*.
3. The university has passed 64 recommendations on various aspects for the benefit of the farming community.
4. The university has produced 2776.01 quintals of Nucleus seed, 2671.01 quintals of foundation seed and 5307.99 quintals of certified and truthful seed.
5. A total of 10941.84 quintals of seed of various field crops were produced during 2014-15.
6. A total of 1229008 planting material of fruit crops, 35200 ornamental Plants and 186.83 quintals seed of vegetable crops produced by university.
7. A total of 3510.50 Litre and 770.47 quintals of biopesticide and biofertilizer were produced by various centers of the university.
2. A total of 108 monthly district workshops were arranged and 1956 number of beneficiaries were benefitted from it.
3. A total of 542 method demonstrations, 425 Result demonstrations and 1575 Front line demonstrations were conducted and 5160 peoples benefitted from these demonstrations.
4. During the year different 6248 Extension Education methods and Aids viz. group discussions, meeting, field visit / shivar pheries, Field days, Farm & Home visit, Farmers rallies, Agril. Exhibition, study tour were organized for diffusion of Agricultural Technologies to the end users.
5. Diagnostic and surveillance team has visited at 147 places to guide the farming community.
6. Different publications viz. Krishi darshani (30000), Shri Sugi (7690), Folders (15000), booklets, MPKV News letter were released by the university and made available to the end users.
7. Nearly 50368 VIP's students, farmers, Trainees and officers visited central campus, MPKV, Rahuri and 7714 visited other centers to acquire recent knowledge of Agriculture and allied enterprises.
8. The university scientist attended 41893 Help line calls and guided the farmers on major issues.
9. Through mobile crop Dispensary 1254 Soil Samples, 619 water samples, 753 pests samples and 325 diseases samples were tested and necessary guidance was given by university scientist on the spot.
10. During the year different 6248 extension education activities were carried out for the benefits of farmers.

1.3 Extension Education

1. About 210 off campus training programmes for farmers, farm youth, farm women, staff of development departments and inter action training programme between farmers and scientists were organized by the Regional Extension centres, District Extension centres and Agri. Research Stations.



2. Education

There are two faculties to impart Agricultural Education in this university namely

1. Faculty of Agriculture
2. Faculty of Agricultural Engineering

Faculty of Agriculture

Agriculture Faculty is a vast and diversified field offering numerous career options. The Faculty of Agriculture imparts education in various fields viz. Horticulture, Agricultural bioTechnology, food Technology, post harvest Technology, soil science, plant protection, agro forestry, Agricultural business management, micro irrigation systems, social sciences etc. The faculty of Agriculture is responsible for undergraduate, post-graduate and doctoral degree academic programmes. The main streams of faculty of Agriculture are as follows :

B.Sc. (Agri.)

Agricultural Education is imparted to develop skilled human resource for developing sustainable Agriculture farming system leading to Tech.nological and economic empowerment of practitioners of Agriculture. B.Sc (Agri.) is a four year degree course spread over 8 semesters with 160 credit work load. A total of 123 course credits of B.Sc. (Agri.) degree are completed upto first six semesters. In the seventh semester, Rural Agricultural Work Experience (RAWE) programme is implemented, which exposes students to rural life and farming situations and the constraints in adoption of modern Technology by the farmers. In the eighth semester in Experiential Learning programme, the students undergo intership in any one of the following industries /companies / institutes.i.e- seed / fertilizer /pesticides industries, bioTech.nological /bio pesticides industries, commercial nurseries, sericulture units, food processing units, Agriculture finance institutions /banks /credit societies etc. Maharashtra Agricultural University Examination Board, Pune conducts common semester end theory examinations of the undergraduate programme. Under this university, 5 constituent colleges and 61 affiliated Agricultural colleges offer B.Sc. (Agri.) degree programme.

B.Sc. (Hort)

Horticultural Education until 1970 was taught as

a part of Agriculture curriculum in India. Realizing the importance of horticulture in promoting livelihood security, economic empowerment and nutritional security, horticulture emerged as a separate discipline. Under the jurisdiction of the university, first Horticulture College was started at the College of Agriculture, Pune in the year 1984. B.Sc (Hort) is a four year degree course spread over 8 semesters. The total credit requirement for the B.Sc. (Hort.) Degree Course is 165. In VII & VIII semesters, 14 weeks HANDS ON TRAINING and 6 weeks Industrial Training are provided conducted on nursery management & protected cultivation respectively. This program is implemented by one constituent college and two affiliated horticultural colleges of the university.

B. Tech. (Food Science and Technology)

B.Tech. (Food Science and Technology) is a 4 year degree course spread over 8 semesters. Out of the total 180 credits, 125 course credits are completed upto sixth semester. In seventh semester 25 (15+10) credits are recommended for Hands on Training , on- campus (15 credits) in various departments of college and off - campus training in other colleges of Food Technology (10 credits) . At least, in two areas Hands on Training is offered to the students by the college depending upon local needs and industrial demands. In eighth semester, Inplant training (off campus) for six months in food industries/Institutes for 30 credits is offered to the students and evaluation is done by host industries.

The basic objective is to provide skilled manpower for commercial food processing, R and D department, research and education institutes and Quality Control departments and to generate self employment opportunities to the youth in setting up of food processing units. The programme is implemented at four affiliated colleges of the university.

B. Sc. (B.B.M.)

B. Sc. (B.B.M.) degree programme is a 4 year degree course spread over 8 semesters. The course is specially designed by considering all the best courses of various institutes and incorporating the requirements of Agricultural sector in general and that of management aspects in particular, it is expected that pass outs will reach to the expectation. The course helps students to get acquainted with the knowledge



regarding Agriculture, Agri. economics, Agri. marketing and Agri. Business management. Out of the total 160 credits, 120 course credits are completed upto sixth semester. In the seventh semester 20 credits are recommended for Experiential Learning. In all five modules are devolped and a batch of five students, to a maximum 20 students are allotted for each module. The modules devolped are namely agro based industries, management of Agro allied industries, post harvest management, project planning, formulation, evaluation of high valued crops and marketing management of Agri. input industries. In VIII Semester students are offered 20 credits In Plant Traning. The students in this programme live in villages along with farmers adopting latest Technologies, afterwards work in processing / marketing units and have one week study tour. The programme is implemented at four affiliated colleges of the university.

B. Sc. (Agri. Bio-Tech.)

B.Sc.(Agri.BioTech.)isa4yeardegreecoursespread over 8 semesters. Since bioTechnology is an integrated science of various disciplines, this UG programme comprises five departments viz. Biochemistry and Molecular Biology, Plant BioTechnology, Post Harvest and Food BioTechnology, Animal BioTechnology and Crop Science.

Out of the 8 semesters, upto 6th semester various courses are offered to the students. In the 7th semester practical oriented cafeteria courses are offered. In the 8th semester hands on training programme comprising individual project is offered in order to acquire the enough knowledge in BioTechnology for their future job / project. There are six affiliated Agril. BioTech. colleges under MPKV, Rahuri. for creating human resourse in Agril. BioTechnology.

1.1 Constituent Colleges

a) College of Agriculture, Pune



The historical College of Agriculture, Pune, is one of the first five Agricultural colleges established in India celebrated its centenary year in 2007. It has an annual intake capacity of 190 students with land holding of 90 ha. It offers PG degree programme in various subjects along with the recently started MBM (Agri.) degree. The college has a Hi-Tech. Floriculture Project, All India Coordinated Bio-control Project, Centre for Advanced Studies in Agro-meteorology, Biological Nitrogen Fixation Scheme, Agri.-clinic and Agri.-business Training Centre, All India Coordinated Mushroom Improvement Project, Fish & Prawns Farming Unit, Medicinal & Aromatic Plants Project and a well equipped nursery.

b) College of Agriculture, Kolhapur



Kolhapur, the southern most district town of Maharashtra State is one of the Agriculturally advanced districts of the country with an excellent network of agro based industries and co-operative organizations. The College of Agriculture is located on the Pune Bangalore National Highway. The college was established in the year 1963 and was initially affiliated to Shivaji University, Kolhapur. Subsequently it became the constituent college of the University in 1969. This college celebrated its Golden Jubilee Year during 2013. In has an annual intake capacity of 190 students with land holding of 85.55 ha. It offers PG degree programme in various subjects. The college has projects such as vermicompost, bio-fertilizers, bio-pesticides, Phule soft drinks, Soil and Irrigation Water Analysis Lab, One time controlled land application of Spent Wash, Fruit Crop Nursery for supply of seedlings and crop seeds, Soil and Water Engineering Field Laboratory.



b) College of Agriculture, Dhule

Dhule is the northern district of Western Maharashtra region. The College of Agriculture was established in the year 1960 and has an annual intake capacity of 128 students. The College has a beautiful campus with spacious buildings for each department. It has a total land holding of 206.43 ha. The college also serves as a regional research centre for the northern part of the Maharashtra, with a focus on research on dry farming, cotton and groundnut. The college has projects such as Vermi Compost, Bio-Fertilizers, Bio-Pesticides, Soil and Irrigation Water Analysis Lab, Organic Farming demonstration unit, Seed Production, Horticultural Nursery, Cattle, Sheep and Goat units, Watershed Field demonstration units, Irrigation Systems Demonstration plot etc.

d) College of Horticulture, Pune

The college was established in the campus of College of Agriculture, Pune in 1984. The annual intake capacity is 32 students. The college has its own building with well developed classrooms, laboratories, LAN, computer & internet facilities.

E) College of Agriculture, Karad

College of Agriculture, Karad is established in the Birth Centenary year of Hon. Ex-chief minister of Maharashtra Shri. Yashwantrao B. Chavan. The dream of Hon. Shri. Yashwantrao B. Chavan was to establish a college which will give education to the rural masses for development of Agriculture, Social and Economic conditions of the rural people of the western region of Maharashtra. The dream came to reality through the Hon. Ex-Chief Minister of Maharashtra Shri. Prathvirajji Chavan on 16/07/2013 and actual working was started on 16/08/2013 with inclusion of 60 students. Subsequently in the year 2014-15 60 (sixty) students have taken admission to this college as second batch of this college. The intake capacity of this college is 60 students.

F) College of Agriculture, Nandurbar

The Nandurbar district was established on 1.7.1998. It includes 6 tahsils in the district. Nandurbar, the northern most district town of Maharashtra State is located in the tribal areas. In Nandurbar district 28.30 per cent area is under irrigation. The College of Agriculture, Nandurbar was started from the year 2013-14 with the intake capacity of 60 and 80 per cent reservation for tribal students.

Affiliated Colleges

Mahatma Phule Krishi Vidyapeeth, Rahuri realised the need and demand for more trained human resource in Agriculture and accordingly provided affiliation to 61 colleges in the faculty of Agriculture. These colleges offer various undergraduate degree programs in the faculty of Agriculture. There are 26 Agriculture Colleges, 04 Colleges of Horticulture, 08 Colleges Food Science, 08 Colleges Agril. Business Management and 06 Colleges of Agril. BioTechnology, 08 Agril. Engineering and 01 Animal Husbandry.

Post Graduate Programme

The faculty offers post graduate degree programme leading to M.Sc.(Agri.) degree and doctoral programme leading to Ph.D degree in 20 disciplines. The common entrance test is conducted by Maharashtra Agricultural Universities Examination Board (MAUEB) for Post Graduate Courses of all the faculties.

M.Sc. (Agri.)

The M.Sc. (Agri.) degree course is of two years spread over 4 semesters. The credit load for the course is 55. Out of this, 35 credits are allocated for course work in which a student has to learn different courses appropriate to his specialization. The course work is split into Major subject (20 credit), Minor subject (09 credit), Supporting subject (05 credit), Seminar (01 credit), thus making 35 credits. In addition, six non credit compulsory courses are allotted. For dissertation, 20 credits are allocated for research thesis. Each student has an advisory committee, which assists the students in selection of courses and the research topic. The student has to undertake a field research experiment and submit the dissertation as partial requirement for the award of the degree. The intake capacity of students for M.Sc. (Agri.) Degree is 188 at Post Graduate Institute, MPKV, Rahuri, 60 at college of Agriculture, Pune, 24 at College of Agriculture, Kolhapur and 20 at college of Agriculture, Dhule.

Ph. D. Agriculture

The Ph.D. degree course is of three years spread over six semesters. The credit requirement for the course is 75; out of which 30 credits are for course work and 45 credits for research work. The course work is split into Major subject (15 credit), Minor subject (08 credit), Supporting subject (05 credit), Seminar (02 credit), does making the 30 credits. In addition, six non credit compulsory courses are allotted. Research is the main component of Ph.D. degree programme wherein a student undertakes sufficient research by way of conducting field experiments or collection of data or both to fulfill his research objectives. The Ph.D. Dissertation is independently evaluated by two experts from any of the SAUs in India. Each student has an advisory committee which assists the student in the selection of courses and the research topic. The intake capacity of students for Ph.D Degree programme is 70 at Post Graduate Institute, MPKV, Rahuri & 02 at College of Agriculture, Pune. In addition, inservice candidates are allotted admission to Ph.D.

Post Graduate Institute

The Post Graduate Institute was established in 1972 to meet the higher educational needs of Agriculture in the State. The institute offers M.Sc. (Agri.) degree



in 18 disciplines namely- Agronomy, Genetics & Plant Breeding, Seed Science & Technology, Plant Physiology, Animal Science, Dairy Science, Plant Pathology, Agril. Microbiology, Agricultural Economics, Agricultural Entomology, Extension Education, Fruit Science, Vegetable Science, Biochemistry, Food Science and Technology, Soil Science and Agril. Chemistry, Agricultural BioTechnology and Irrigation Water Management. The Ph. D. programme is offered in twenty disciplines. The Post Graduate Institute has an instructional farm spread over 56.21 ha. and is exclusively used for research activities of students. The students also have access to research on horticultural farm, medicinal and aromatic plants farm and irrigation water management farm. Each department has well equipped laboratories. In addition to these, the ultra modern facilities of following centres are available to students research: BioTechnology Research Centre, All India Network Project on Pesticide Residue, Micronutrient Research Scheme, Post Harvest Technology Laboratory, Bio-fertilizer Laboratory, Frozen Semen Laboratory, Biological Control Laboratory, Bakery Unit.

Faculty of Agricultural Engineering

The faculty of Agricultural Engineering meets the educational needs in various fields viz, micro irrigation Technologies, polyhouse, drainage engineering, groundwater, wells and pumps, soil and water conservation, watershed management, grain, fruit and vegetable storage and processing, unconventional energy sources, tractors, farm machinery and implements, computer applications, remote sensing and GIS. The faculty has one constituent college and three affiliated colleges offering education in Agricultural engineering. All these colleges offer undergraduate



degree program leading to B.Tech. (Agri. Engg.) degree whereas the constituent college at Rahuri offers the postgraduate program in Agricultural engineering leading to M.Tech.(Agri.Engg.) degree.

Dr. Annasaheb Shinde College of Agricultural Engineering, Rahuri



The college was established in 1969 after realizing the need for Agricultural engineers for soil conservation, irrigation management, farm mechanization and post harvest processing. In 1996, the college was named after the former Union Minister of State for Agriculture and the architect of green revolution in India, Late Dr. Annasaheb Shinde. The college offers the UG programme in Agril. Engg. with intake capacity of 64 and PG programme with intake capacity of 16 in four different disciplines initiated in 1982. Dr. A. S. College of Agril. Engg. has recently started the Ph.D. in Agril. Engineering by course work and research in the disciplines viz., Agril. Process Engineering, Irrigation & Drainage Engineering and Soil Water Conservation Engineering.

In addition to the academic programmes, the faculty has the following ongoing projects. All India Coordinated Research Project on Utilization of Groundwater through Wells and Pumps; Precision Farming Development Centre, AICRP on Farm Implement and Machinery, Remote Sensing Laboratory, and the Tractor Training Laboratory.

Lower Agricultural Education

Under the Lower Agricultural Education, Diploma programmes are offered in Marathi medium through 9 constituent and 85 affiliated Agri. Tech. Schools in the jurisdiction of the university. The concept of lower Agricultural education revolves around improving the

competency of participating students and providing trained man power at the grass root level. The students who pass the 10th standard (S.S.C.) examination are admitted on district merit list for Agri. Tech. Schools. Besides this 1 constituent and 3 Mali Training Centres conduct one year certificate courses.

Agricultural Knowledge Management Unit (AKMU)

The MPKV, Rahuri has V-SAT connectivity at Central Campus, constituent colleges and research stations. AKMU has a good network of OFC and Wi-Fi connectivity with 200 nodes. The video conferencing facility was created at three places at central campus and at 8 centers (College of Agriculture- Kolhapur, Pune and Dhule, ZARS-Igatpuri and Solapur, ARS, Kasbe Digraj, Dist. Sangli, CSRS, Padegaon, Dist. Satara and Oilseed Research Station, Jalgaon). The project is wholly owned and controlled by MPKV, Rahuri with a server at AKMU. This is a mega project of MPKV under special funds received from ICAR, New Delhi.

University Library



The University Library, MPKV, Rahuri started functioning at Central Campus in the year 1971. Since its inception the library is developing steadily under the Chairmanship of Library Advisory Committee and playing pivotal role in providing scientific and Tech. nological information to the students, teachers and scientists of both faculties i.e. Faculty of Agriculture and Faculty of Agricultural Engineering, as well as progressive farmers for the last forty years. In this age of information Technology tremendous changes have taken place in library services.

Now a days University Library is rendering IT based services such as Internet, Retrieval of CD ROM Databases, e-mail, e-journals, online consortia (CeRA) etc along with conventional ones..

Library Budget

During the year under report, the University Library, Central Campus, Rahuri received the grants of Rs. 44.40 lakh for salary and Rs. 6.72. lakh for Contingent expenditure. and in addition to that 25 lakh from the ICAR New Delhi. The library also received Rs.2.50 lakh from ICAR, New Delhi for e-Granth NAIP PROJECT. This library has received a total grants of Rs. 76.16 lakh during the year under report.

Acquisition Of Books And Journals

During the year under report the library received 1135 books, 181 theses thus making total collection of 1,18,964 as on 31.3.2015. The library subscribed 163 online Books the the year 2015. The library is also receiving 18 journals against exchanges of JMAU and 40 journals on gratis.

Library Services

- Open access

- Lending of Books for home reading
- Inter Library Loan facility
- Photocopying services
- Reading Hall facility

IT Based Services

Internet services

- CD ROM Databases
- CeRA (Consortium of e-Resources in Agriculture)
- E-journals, On-line E-journals
- Statistical Database
- ETAD (E-Theses Abstract Database)
- Viewing Video Cassettes, DVDs through TV/VCR
- KrishiPrabha
- Course conducted
- Remembrance Day of Dr. S.R.Ranganathan
- One Day Workshop
- OPAC (Online Public Access Catalog)

Educational Institutes

Sl. No	Name of Institute	Name of the Course/ Degree	Intake capacity
A) Constituent Colleges			
1.	Post Graduate Institute, Rahuri	Ph.D.	72
		M.Sc. (Agri.)	168
		M.Sc. (Hort.)	12
		M.Sc. (Bio-Tech.)	8
2.	College of Agriculture, Pune	M.Sc. (Agri.)	54
		M.Sc. (Hort.)	6
		M.B.M. (Agri.)	30
		B.Sc. (Agri.)	190
3.	College of Agriculture, Kolhapur	M.Sc. (Agri.)	48
		M.Sc. (Hort.)	4
		B.Sc. (Agri.)	190
4.	College of Agriculture, Dhule	M.Sc. (Agri.)	24
		M.Sc. (Hort.)	4
		B.Sc. (Agri.)	128
5.	College of Agriculture, Karad	B.Sc. (Agri.)	60
6.	College of Agriculture, Nandurbar	B.Sc. (Agri.)	60
7.	College of Horticulture, Pune	B.Sc. (Hort.)	32
8.	Dr. Annasaheb Shinde College of Agril.Engg. Rahuri	Ph.D.	6
		M.Tech.(Agril.Engg)	16
		B.Tech. (Agril.Engg)	64



B) Affiliated Colleges			
1.	College of Agriculture, Akluj, Tal. Malshiras	B.Sc. (Agri.)	120
2.	College of Agriculture, Baramati	B.Sc. (Agri.)	120
3.	College of Agriculture, Sonsal Hingangaon, Tal. Kadegaon	B.Sc. (Agri.)	120
4.	Maratha Vidya Prasarak, College of Agriculture, Nasik	B.Sc. (Agri.)	120
5.	College of Agriculture, Rethare	B.Sc. (Agri.)	120
6.	College of Agriculture, Sonai	B.Sc. (Agri.)	120
7.	K.K.Wagh College of Agriculture, Nasik	B.Sc. (Agri.)	120
8.	College of Agriculture, Rajmachi	B.Sc. (Agri.)	120
9.	Dr.Ulhas Patil College of Agriculture, Jalgaon	B.Sc. (Agri.)	120
10.	College of Agriculture, Ambi, Talegaon Dabhade	B.Sc. (Agri.)	120
11.	College of Agriculture, Shahada, Dist. Nandurbar	B.Sc. (Agri.)	120
12.	College of Agriculture, Wadala	B.Sc. (Agri.)	120
13.	College of Agriculture, Talsande	B.Sc. (Agri.)	120
14.	College of Agriculture, Phaltan	B.Sc. (Agri.)	60
15.	College of Agriculture, Amalner	B.Sc. (Agri.)	60
16.	College of Agriculture, Maldad, Tal. Sangamner	B.Sc. (Agri.)	60
17.	Sadguru College of Agriculture, Mirajgaon	B.Sc. (Agri.)	60
18.	College of Agriculture, Dondaicha, Tal. Sindkhed	B.Sc. (Agri.)	60
19.	College of Agriculture, Babhulgaon, Tal. Yeola	B.Sc. (Agri.)	60
20.	College of Agriculture, Pravaranagar, Loni	B.Sc. (Agri.)	60
21.	College of Agriculture, Ghargaon	B.Sc. (Agri.)	60
22.	Sharad College of Agriculture, Jainapur	B.Sc. (Agri.)	60
23.	College of Agriculture, Paniv	B.Sc. (Agri.)	60
24.	College of Agriculture, Vilad Ghat, Ahmednagar	B.Sc. (Agri.)	60
25.	College of Agriculture, Nesari, Kolhapur	B.Sc. (Agri.)	60
26.	College of Agriculture, Malegaon, Nashik	B.Sc. (Agri.)	60
27.	College of Horticulture, Phaltan	B.Sc. (Hort.)	80
28.	College of Horticulture, Sonsal-Hingangaon Tal. Kadegaon	B.Sc. (Hort.)	40
29.	K.K.Wagh College of Horticulture, Saraswatinagar, Nashik	B.Sc. (Hort.)	40
30.	College of Horticulture, Malegaon	B.Sc. (Hort.)	40
31.	College of Agri. Engineering, Jalgaon	B.Tech. (Agril. Engg.)	80
32.	College of Agri. Engineering, Talsande	B.Tech. (Agril. Engg.)	80
33.	K. K. Wagh College of Agril. Engineering, Nasik	B.Tech. (Agril. Engg.)	80
34.	College of Agril. Engineering, Yashwantnagar, Tal. Karad	B.Tech. (Agril. Engg.)	40
35.	College of Agril. Engineering, Mirajgaon	B.Tech. (Agril. Engg.)	40
36.	College of Agril. Engineering, Paniv	B.Tech. (Agril. Engg.)	40
37.	College of Agril. Engineering, At. Maldad	B.Tech. (Agril. Engg.)	40



38.	College of Agril. Engineering, Rajmachi	B.Tech. (Agril. Engg.)	40
39.	MEER's MIT College of Food Technology, Loni Kalbhor	B.Tech. (Food Tech.)	80
40.	Mokashi College of Food Technology, Rajmachi	B.Tech. (Food Tech.)	80
41.	K.K.Wagh College of Food Technology, Nashik	B.Tech. (Food Tech.)	80
42.	College of Food Technology, Maldad	B.Tech. (Food Tech.)	40
43.	College of Food Technology, Jalgaon	B.Tech. (Food Tech.)	40
44.	College of Food Technology, Diwanmala	B.Tech. (Food Tech.)	40
45.	College of Food Technology, Wagholi	B.Tech. (Food Tech.)	40
46.	College of Food Technology, Ghargaon	B.Tech. (Food Tech.)	40
47.	College of Agri. Bio-Technology, Loni, Tal. Rahata	B.Sc. (Agri. Bio-Tech.)	80
48.	K. K. Wagh College of Agri. Bio-Technology, Nasik	B.Sc. (Agri. Bio-Tech.)	80
49.	College of Agri. Bio-Technology, Wadala	B.Sc. (Agri. Bio-Tech.)	40
50.	Modern College of Agri. Bio-Technology, Paud, Tal. Mulshi	B.Sc. (Agri. Bio-Tech.)	40
51.	College of Agriculture BioTechnology, Rajlakshmi Foundation, At. Madadgaon	B.Sc. (Agri. Bio-Tech.)	80
52.	College of Agriculture BioTechnology, Baramati	B.Sc. (Agri. Bio-Tech.)	40
53.	College of Agricultural Business Management, Akurdi	B.B.A. (Agri.)	80
54.	College of Agricultural Business Management, Narayangaon, Tal. Junnar	B.B.A. (Agri.)	80
55.	College of Agricultural Business Management, Sangli	B.B.A. (Agri.)	40
56.	College of Agricultural Business Management, Gunjalwadi, Tal. Sangamner	B.B.A. (Agri.)	40
57.	College of Agricultural Business Management, Loni, Tal. Rahata	B.B.A. (Agri.)	40
58.	College of Agricultural Business Management, Nashik	B.B.A. (Agri.)	40
59.	College of Agricultural Business Management, Wadala	B.B.A. (Agri.)	40
60.	College of Agricultural Business Management, Baramati	B.B.A. (Agri.)	40
61.	College of Animal Husbandry, Baramati	Animal Husbandry	30

C) Agril.Tech.Schools & Mali Training, Centers

1.	Ghatak Krishi Tantra Vidyalaya Manjarifarm (Pune), Kolhapur, Dhule, Borgaon (Satara), Solapur, Digra (Sangali), Puntamba (Ahmednagar), Jalgaon, Malegaon (Nashik)	Agril. Diploma	60 (each)
2.	Agril. Tech.School, Manjari farm (Girl)	Agril. Diploma	60
3.	Private Agril. Tech. Polytechnics (Total - 87)	Agril. Poly. Diploma	60 (each)
4.	Mali Training Center, Ganeshkhind, Pune	Certificate Course	40
5.	Private Mali Training Center, (Total - 04)	Certificate Course	40 (each)



Enrolment of the students at PGI, Rahuri.

Sl. No.	Name of the Department	M.Sc. (Agri.)				Ph.D.				Total
		Fist Year		Second Year		Fist Year		Second Year		
		Regular students	In-service students	Regular students	In-service students	Regular students	In-service students	Regular students	In-service students	
1	Agronomy	31	-	31	-	6	-	6	-	74
2	Genetics and Plant Breeding	31	-	31	-	6	-	6	-	74
3	Plant Physiology	6	-	6	-	4	-	4	-	20
4	Seed Technology	9	-	9	-	4	-	4	-	26
5	Agricultural Economics	21	-	21	-	4	-	4	-	50
6	Agricultural Extension	31	-	31	-	4	-	4	-	70
7	Animal Science	15	-	15	-	4	1	4	1	40
8	Dairy Science	6	-	6	-	4	-	4	-	20
9	Agricultural Entomology	31	-	31	-	6	-	6	-	74
10	Plant Pathology	21	-	21	-	6	-	6	-	54
11	Agricultural Microbiology	18	-	18	-	4	-	4	-	44
12	Soil Science & Agricultural Chemistry	31	-	31	-	4	1	4	1	72
13	Biochemistry	9	-	9	-	-	-	-	-	18
14	Food Science and Technology	9	-	9	-	2	-	2	-	22
15	Inter Faculty, IWM	9	-	9	-	2	-	2	-	22
16	Agril. Meteorology	6	-	6	-	2	-	2	-	16
17	Fruit Science	6	-	6	-	4	-	4	-	20
18	Vegetable Science	6	-	6	-	4	-	4	-	20
19	Floriculture and land scape gardening	6	-	6	-	-	-	-	-	12
20	Agril. Process Engineering	4	-	4	-	3	-	3	-	14



21	Farm Power Machinery Engg.	4	-	4	-	3	-	3	-	14
22	Irrigation and Drainage Engg.	4	-	4	-	3	1	3	1	16
23.	Soil and Water Conservation Engineering	4	-	4	-	3	-	3	-	14
Total		314	-	314	-	82	3	82	3	798

Successful students of the Post Graduate Institute, MPKV, Rahuri.

Sl. No.	Department	M. Sc. (Agri.) PGI, Rahuri	Ph.D.	Total
1)	Agronomy	18	6	24
2)	Genetics and Plant Breeding	13	6	19
3)	Plant Physiology	4	2	6
4)	Seed Technology	8	4	12
5)	Soil Science & Agricultural Chemistry	11	8	19
6)	Agricultural Entomology	12	4	16
7)	Agricultural Extension	13	3	16
8)	Agricultural Economics	20	5	25
9)	Plant Pathology	18	9	27
10)	Agricultural Microbiology	8	3	11
11)	Animal Science	15	-	15
12)	Dairy Science	4	1	5
13)	Food Science and Technology	6	-	6
14)	Biochemistry	3	1	4
15)	Inter Faculty, IWM	9	-	9
16)	Fruit Science	5	1	6
17)	Vegetable Science	3	3	6
18)	Agril. BioTechnology	2	-	2
Total		172	56	228

Agril. Diploma and PolyTech.nics passed out Students

Particulars	Government	Constitutional
Agril. Diploma	575	524
Mali Training Center, Ganeshkhind, Pune	21	-
Constitutional Mali Training Center (Total- 04)	-	72



3. Research



The jurisdiction of Mahatma Phule Krishi Vidyapeeth, Rahuri extends over the Western Maharashtra comprising of 10 districts divided into four agro climatic zones viz., Western Ghat Zone, Sub-montane Zone, Plain zone and Scarcity zone extended from Solapur to Nandurbar. In addition, Jalgaon district with assured rainfall which falls in Central Plateau Zone in the jurisdiction of the university.

For conducting the research on soil, climate, cropping system, livestock and other aspects of farming business, the university has a network of research stations spread in different agro climatic zones. In all, 27 research stations are located in 4 agro climatic zones. The State level Crop Specialists are placed at Jalgaon (Oilseeds), Padegaon (Sugarcane), Niphad (Wheat) and Solapur (Soil). In addition to this, 4 Zonal Research Stations are located at Igatpuri, Pune, Kolhapur and Solapur. There are 18 Sub-Research Stations where mainly verification of research work is being done to test the Technologies developed by the university as well as to take up the research programmes based on feedbacks received from the farmers.

At present, there are 76 non-plan schemes funded by State Govt., 49 AICRPs on different crops /plant sciences. There are 5 Centrally Sponsored Research Schemes funded by the Central Govt., Ministry of Agriculture, 37 ad-hoc research projects funded by different agencies and 12 Research Projects under National Horticulture Mission are in operation in the jurisdiction of MPKV.

At present, there are 76 non-plan schemes funded

by State Govt., 48 AICRPs on different crops / plant sciences, 2 Network Projects funded by ICAR on 100% basis. There are one Centrally Sponsored Research Schemes funded by the Central Govt., Ministry of Agriculture, 25 ad-hoc research projects funded by different agencies, 2, RKVY projects, 4 research projects under National Horticulture Mission, 2 National Innovative Projects, one project from Science and Technology Department, 4 International collaboration projects, 6 NICRA projects for climate change are in operation in the jurisdiction of MPKV.

Taking into consideration the availability of land, weather conditions and resources, the university has concentrated its efforts to develop suitable Technologies for dryland Agriculture, irrigated farming as well as for hi-Tech. Agriculture. During the last 46 years, the university has released quite good number of high yielding varieties (more than 237) of cereals, pulses, oilseeds, vegetables, sugarcane, fruits, flowers and other cash crops. The appropriate agroTech.niques for enhancing Agricultural production and productivity of different crops have also been passed on to the farmers. The contribution of university in water management is quite significant. The research on micropropagation, farm machinery, dryland horticulture, integrated pest and nutrient management including biofertilizers, mushroom production etc. is worth mentioning. The university has focussed its attention on location specific and need based research activities in order to cater the needs of all types of farmers and farming groups. BioTechnology with its vast potential and challenges is important to Agricultural development. This university is developing bioTech.nological competence in the areas of plant tissue culture, molecular biology, biocontrol and biofertilizers.

During the period under report, university has recommended 11 crop varieties and 3 farm implements for release along with 64 recommendations on various aspects for the benefit of farmers.

Zonal, State Level, Lead and Verification Research Stations of the University

Research Station	Lead Function (s)	Verification Function (s)
A. Western Ghat Zone		
1. Igatpuri (Zonal Agril. Research Station)	Rice, Niger, Silviculture, Soil Water Conservation Engineering	Ragi, Beans, Rainfed fruits, Plantation crops, Coffee, Turmeric
2. Lonavala	Rice (Screening for blast)	--
3. Mahabaleshwar	Wheat (Screening against rust)	Vegetables (cruciferous), Berries
4. Radhanagari	Paddy	Beans, Wheat, Wal
B. Sub-Montane Zone		
1. Kolhapur (Zonal Agril. Research Station)	Maize, Small Millets, Pandharpuri Buffaloe, Hortipastoral Systems, Sugarcane,	Grasses, Rainfed fruits & Vegetables, Soybean, Groundnut, Organic Farming in Vegetables
2. Regional Sugarcane and Jaggery Research Station, Kolhapur	Sugarcane, Jaggery	Sugarcane based Cropping System
3. Gadhinglaj	Organic farming, Basmati Rice	Sorghum (K), Pulses, Chilli, and Oilseeds
4. Karad	INM for Cropping Systems	Pulses, Maize, Kharif Jowar, Soybean, Sunflower, Groundnut,
5. Vadgaon Maval	Rice	Rice based Cropping System.
C. Plain Zone		
1. Ganeshkhind, Pune (Zonal Agril. Research Station)	Fruits, Vegetables, Flowers, Rajmah Bean, Spices, Plantation Crops, AICRP on Potato	Pulses, Oilseeds and Wheat
4. Pandharpur	Pulses, Oilseeds	Arid Zone Fruit Crops
5. Chas	--	Dry farming, Pearl millet, Pulses (K), Sorghum (R)
6. Padegaon (State Level)	Sugarcane, Sugarcane based Farming & Cropping System	Sugar beet
7. Rahuri	Sorghum, Pulses, Irrigated Cotton, Forages, Grasses, Groundnut (S), Fruits, Vegetables, Cropping System, Water Management, Organic Farming, IPM, BioTechnology, PHT, Farm Machinery, STCR, Cattle, Goat, Sheep, Seed Technology, Jute and Under utilised crops	--
8. Kopergaon	Sunflower	Pearl millet, Pulses, Soybean, Cotton and Wheat
9. Shrirampur	Citrus	--
10. Dhule	Dry farming, Pearl millet, Grasses	Sorghum (K), Pulses, Oilseeds, Rainfed Cotton, Arid Zone Fruit Crops
11. Jadhavwadi (Pune)	Fig and Custard apple	Fig and custard apple
12. Lakhmapur	Pomegranate	Pomegranate
E. Central Plateau Zone		
1. Jalgaon (State Level)	Oilseeds, Banana and Betelvine, Rainfed Cotton	Pulses, Sorghum (K), Soybean, Sunflower



Maharashtra has four geographic regions viz., Konkan, Western Maharashtra, Vidarbha and Marathwada, which have different ecological and cropping patterns. On the basis of weather and land conditions, Maharashtra is divided into nine zones viz., North Konkan, South Konkan, Montane Zone, Sub-montane zone, Plain Zone, Scarcity Zone, Central Plateau Zone, Western Vidarbha and Eastern Vidarbha. To cater the needs of these zones and improve the production and productivity of different crops, this university has planned various research and extension programmes. Emphasis is given on sustainable Agriculture, including poultry, sheep and goat rearing, apiculture, fisheries, sericulture etc.

The areas have been identified for better adaptation of cropping patterns such as sugarcane in Kolhapur, Sangli, Pune and Ahmednagar, grapes in Nashik, Sangli, Pune and Solapur, fruits in Pune, Ahmednagar, Sangli and Solapur district to harvest maximum yield and profit.

SIGNIFICANT RESEARCH ACHIEVEMENTS

Release varieties

1. Rabi Sorghum : Phule Rohini (RPASV 3)



Rabi sorghum variety 'Phule Rohini' (RPASV 3) is recommended in Western Maharashtra specially for *papad* purpose.

2. Rabi Sorghum : Phule Madhur (RSSGV 46)



Rabi sorghum variety 'Phule Madhur' (RSSGV 46) is recommended and released in Western Maharashtra specially for *Hurda* purpose.

3. Sweet Sorghum Hybrid : Phule Vasundhara (RSSH 50)



Sweet Sorghum Hybrid 'Phule Vasundhara' (RSSH 50) is recommended for Western Maharashtra specially for ethanol purpose.

4. Bajra : Aadishakti (DHBH-9071)



High yielding and downey mildew resistant bajra hybrid 'Aadishakti' (DHBH-9071) is recommended for bajra growing areas of Maharashtra.

5. Little Millet : KOPLM 83 (Phule Ekdashi)



The little millet variety 'Phule Ekdashi' (KOPLM 83) is recommended for release for cultivation in sub-montane and Ghat Zone of Maharashtra.

6. Cowpea : Phule Vithai (CP 05040)



Cowpea variety 'Phule Vithai' (Phule CP 05040) is recommended for cowpea growing areas of Western Maharashtra.

7. Horsegram : Phule Sakas (SHG- 0628 -4)



Horsegram variety 'Phule Sakas' (SHG 0628-4) is recommended for cultivation on shallow to medium soils of Scarcity Zone of Maharashtra.

8. Sunflower Phule Bhaskar (SS 0880)



Sunflower variety 'Phule Bhaskar' (SS -0808) having high seed yield (18.13 qt/ha.) and oil content (36.20%) is recommended for cultivation under rainfed condition during *Kharif* season in Maharashtra State.

Horticulture

9. Pomegranate (Phule Anardana)



Pomegranate cv. 'Phule Anardana' with prominent features like attractive dark red arils, higher acidity (4.18%), hard seed and higher yield (16.02 t/ha) is recommended and released in Maharashtra especially for *anardana* preparation.

10. Fig (Phule Rajewadi)



The fig cv. 'Phule Rajewadi' (JWF -6) along with improved production Technology is recommended for Maharashtra based on bigger fruit size, high yield and more pulp percentage with reddish purplish fruit colour.

11. Lettuce (Phule Padma)

The lettuce cultivar 'Phule Padma' (GKL-2) having higher salad leaves yield, with prominent features such as attractive green colour leaves, crispiness and enrichment



in nutraceutical parameters is recommended for cultivation in Western Maharashtra.

Farm implements

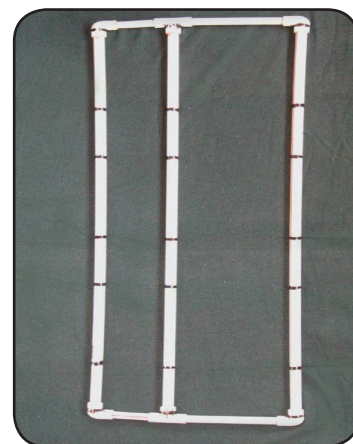
1. Phule Kadaba Kutti Yantra



The one H.P. Single phase power operated 'Phule Chaff Cutter' (*Kadaba Kutti Yantra*) developed by Mahatma Phule Krishi Vidyapeeth is recommended for small and marginal dairy farmers.

2. Phule PVC Bhat Lavani Chokat

'Phule PVC Bhat Lavani Choukat' (paddy transplanting marker) of size 1.20 m x 0.40 m developed by Mahatma Phule Krishi Vidyapeeth is recommended for transplanting (15cm X 25cm spacing), convenient in briquettes application (62500 per ha) and obtaining higher yield under four point paddy cultivation Technology.



3. Sugarcane Bandhani Yantra

Tractor operated (50 H.P.) Sugarcane earthingup (*Bandhani Yantra*) equipment developed by Vasantdada Sugar Institute is recommended for heavy earthingup operation in single row planting of 4 ft. or 5 ft. and paired row planting of 2.5 X 5 ft. in sugarcane crop.

Recommendations

- Application of 10 t FYM ha⁻¹ alongwith nitrogen, phosphate and potash as per yield targeting equations for 110-120 t ha⁻¹ yield of Banana and maintaining the soil fertility is recommended for inceptisols of Western Maharashtra.

With FYM
$FN = 10.02 \times T - 1.34 \times SN - 1.76 \times FYM$
$FP_2O_5 = 2.09 \times T - 2.97 \times SP - 1.47 \times FYM$



$FK_2O = 7.52 \times T - 0.49 \times SK - 1.28 \times FYM$
Without FYM
$FN = 16.97 \times T - 2.27 \times SN$
$FP_2O_5 = 2.91 \times T - 4.14 \times SP$
$FK_2O = 13.97 \times T - 0.91 \times SK$

Where FN, FP_2O_5 and FK_2O is fertilizer N, P_2O_5 and K_2O in $kg\ ha^{-1}$, T is yield target in $t\ ha^{-1}$ and SN, SP and SK are soil available N, P and K in $kg\ ha^{-1}$, FYM in $t\ ha^{-1}$.

- Application of 10 t FYM ha^{-1} alongwith nitrogen, phosphate and potash as per yield targeting equations for 60 – 70 q ha^{-1} yield of *kharif* maize (grain) and maintaining the soil fertility is recommended for inceptisols of Western Maharashtra.

With FYM
$FN = 3.88 \times T - 0.56 \times SN - 3.19 \times FYM$
$FP_2O_5 = 1.91 \times T - 0.99 \times SP - 1.46 \times FYM$
$FK_2O = 2.09 \times T - 0.13 \times SK - 1.08 \times FYM$
Without FYM
$FN = 4.51 \times T - 0.65 \times SN$
$FP_2O_5 = 1.93 \times T - 1.05 \times SP$
$FK_2O = 2.57 \times T - 0.16 \times SK$

Where FN, FP_2O_5 and FK_2O is fertilizer N, P_2O_5 and K_2O in $kg\ ha^{-1}$, T is yield target in $q\ ha^{-1}$ and SN, SP and SK are soil available N, P and K in $kg\ ha^{-1}$, FYM in $t\ ha^{-1}$.

- Application of 10 t FYM ha^{-1} + nitrogen, phosphorus and potash as per yield targeting equations for 120-140 q ha^{-1} yield of marigold and maintaining the soil fertility is recommended for inceptisols of Western Maharashtra.

With FYM
$FN = 1.79 \times T - 0.54 \times SN - 1.87 \times FYM$
$FP_2O_5 = 0.90 \times T - 2.26 \times SP - 3.77 \times FYM$
$FK_2O = 1.08 \times T - 0.15 \times SK - 1.89 \times FYM$
Without FYM
$FN = 2.61 \times T - 0.78 \times SN$

$FP_2O_5 = 1.06 \times T - 2.66 \times SP$
$FK_2O = 1.41 \times T - 0.20 \times SK$

Where FN, FP_2O_5 and FK_2O is fertilizer N, P_2O_5 and K_2O in $kg\ ha^{-1}$, T is yield target in $q\ ha^{-1}$ and SN, SP and SK are soil available N, P and K in $kg\ ha^{-1}$, FYM in $t\ ha^{-1}$.

- In Scarcity zone of Maharashtra, application of 2.5 t FYM ha^{-1} along with nitrogen, phosphate and potash as per yield targeting equations for 15 -18 q ha^{-1} and 40 - 50 q ha^{-1} fodder yield of rainfed *rabi* sorghum on medium deep black soil is recommended.

With FYM
$FN = 9.27 \times T - 0.27 \times SN - 4.42 \times FYM$
$FP_2O_5 = 4.58 \times T - 2.48 \times SP - 0.89 \times FYM$
$FK_2O = 4.02 \times T - 0.03 \times SK - 2.15 \times FYM$
Without FYM
$FN = 10.55 \times T - 0.31 \times SN$
$FP_2O_5 = 5.44 \times T - 2.94 \times SP$
$FK_2O = 5.24 \times T - 0.04 \times SK$

Where FN, FP_2O_5 and FK_2O is fertilizer N, P_2O_5 and K_2O in $kg\ ha^{-1}$, T is yield target in $q\ ha^{-1}$ and SN, SP and SK are soil available N, P and K in $kg\ ha^{-1}$, FYM in $t\ ha^{-1}$.

- The application of 5 t FYM + 60:30:30 kg N, P_2O_5 and $K_2O\ ha^{-1}$ along with biofertilizer seed treatment (Azospirillum brasilens + Aspergillus awamori each @ 25 gm kg^{-1} seed) is recommended for finger millet of sub montane zone of Maharashtra for higher yield and monetary returns.
- Application of 25 kg phosphate through 1 tonne composted pressmud one month before sowing and 25 kg phosphate + 25 kg nitrogen through chemical fertilizer along with 25 g rhizobium and phosphate solubilizing bacteria each per kg seed as seed treatment at the time of sowing is recommended for rainfed pigeonpea grown on medium deep black soils in scarcity zone of Maharashtra on the basis of higher yield, monetary returns and maintaining soil fertility.
- Application of 5 t FYM ha^{-1} with 50: 75:45 (N: P_2O_5 : $K_2O\ kg\ ha^{-1}$) to soybean sown in first fortnight of



June is recommended as revised fertilizer nutrient dose for medium deep black soils in plain zone of Maharashtra on the basis of higher yield, monetary returns and maintaining of soil fertility.

8. To obtain higher yield and monetary returns from *kharif* irrigated sunflower, it is necessary to follow the complete package of practices. However, under resource constraints, application of recommended dose of fertilizers, thinning and weeding along with plant protection is recommended.
9. In the context of delayed monsoon, a revised contingent crop planning is recommended as follows for scarcity zone (Rainfall Zone 3 & 4).

Onset of monsoon	Crops to be sown
Ist Fortnight of July	Fodder maize, Cotton, Pigeonpea, Groundnut or Soybean
IInd Fortnight of July	Fodder maize , Pigeonpea or Castor
Ist Fortnight of August	Pigeonpea or Castor

10. Planting of turmeric on raised beds (90 cm) under drip irrigation (scheduled at 70 % ETc every alternate day) and fertigation with 75% through water soluble fertilizers (150:75:75 kg N, P₂O₅ and K₂O ha⁻¹) as per given schedule alongwith 25 t ha⁻¹ FYM and 2 t ha⁻¹ neem cake is recommended in medium deep soils of Scarcity Zone of Western Maharashtra for obtaining higher yields and monetary returns, saving and use efficiency of fertilizers and water.

Fertigation schedule for Turmeric

No.	Crop stage	Duration in weeks	Nutrient requirement (%)		
			N	P	K
1	Planting to establishment	2	10	20	10
2	Active vegetative stage	10	50	30	20
3	Rhizome initiation stage	12	25	30	30

4	Rhizome maturation stage	6	15	20	40
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11. In deep black soils of Western Maharashtra for maximum returns, water saving, maintaining soil health and reduce leaf reddening, planting of Bt cotton be done under drip irrigation with 100% ETc at alternate day and recommended dose of nitrogen (125 Kg N ha⁻¹) in six splits through band placement as per given schedule is recommended.

Split No.	Appli-cation period	Dose of N & time of application	Quantity of fertilizers to be applied (Kg ha ⁻¹)		
			N	P ₂ O ₅	K ₂ O
1	1 st week	20% at the time of sowing	25	12.5	12.5
2	4 th week	16% 30 days after sowing	20	10	10
3	6 th week	16% 45 days after sowing	20	10	10
4	8 th week	16% 60 days after sowing	20	10	10
5	10 th week	16% 75 days after sowing	20	10	10
6	12 th week	16% 90 days after sowing	20	10	10
Phosphorus (62.5 Kg P ₂ O ₅ ha ⁻¹) and Potassium (62.5 Kg K ₂ O ha ⁻¹) as per recommended dose					

12. Drip irrigation with 100 % ETc water at alternate day is recommended for higher productivity and efficient water use for summer groundnut cultivated in medium deep soils of Maharashtra.



Sl. No.	Months	Water requirement, lit per alternate day per emitter
1	February	2.19
2	March	4.58
3	April	7.50
4	May	8.50
5	June	4.44

13. Drip fertigation with recommended dose (25: 50 : 25 NPK, kg / ha) of water soluble fertilizers in 12 weekly splits as per following schedule along with three foliar sprays of 2% Urea phosphate (17:44) at 30, 45 and 60 days after sowing is recommended for higher yield and monetary returns, efficient water and nutrient use for summer groundnut in medium deep soils of scarcity zone of Maharashtra.

Fertilizer Schedule: Per cent nutrients to be applied in 12 weekly splits

Weeks after planting	Nitrogen (N)		Phosphorus (P ₂ O ₅)		Potassium (K ₂ O)	
	%	Kg/ha	%	Kg/ha	%	Kg/ha
1-3 weeks	25	6.25	20	10	10	2.5
4-7 weeks	30	7.50	30	15	20	5
8-10 weeks	30	7.50	30	15	40	10
11-12 weeks	15	3.75	20	10	30	7.5
Total	100	25	100	50	100	25

14. Drip fertigation with 80 % recommended dose (96 : 48: 32 NPK kg / ha) of water soluble fertilizers in 12 weekly splits as per following schedule is recommended for higher yield and net returns, efficient water and nutrient use for *kharif* maize in

medium deep soils of Maharashtra.

Fertilizer Schedule : Per cent nutrients to be applied in 12 weekly splits

Weeks after sowing	Nitrogen (N)		Phosphorus (P ₂ O ₅)		Potassium (K ₂ O)	
	%	Kg/ha	%	Kg/ha	%	Kg/ha
1-3 weeks	30	29	25	12	25	8
4-6 weeks	40	38	35	17	40	13
7-9 weeks	20	19	20	10	20	6
10-12 weeks	10	10	20	9	15	5
Total	100	96	100	48	100	32

15. Planting of rabi potato at 60 X 20 cm spacing on ridges and furrows adopting drip method of irrigation with lateral at 120 cm spacing and 100 % ETc water at alternate day is recommended in medium deep soils of Maharashtra for better yield and quality, efficient water use and higher economical returns.

16. Drip method of irrigation with 100 % ETc at alternate day with fertigation of 100% recommended dose (150:75:75 NPK kg / ha) of water soluble fertilizers in 21 weekly splits as per following schedule is recommended for higher yield, efficient water and nutrient use for *rabi* brinjal in medium deep soils.

Fertilizer Schedule : Per cent nutrients to be applied in 21 equal weekly splits.

Weeks after planting	N		P ₂ O ₅		K ₂ O	
	%	(kg/ha)	%	(kg/ha)	%	(kg/ha)
1-4 weeks	30	45.0	30	22.5	10	7.5
5-7 weeks	15	22.5	30	22.5	20	15.0

8-11 weeks	15	22.5	20	15.0	20	15.0
12-21 weeks	40	60.0	20	15.0	50	37.5
Total	100	150	100	75	100	75

17. Application of 80 % of ETc water through drip at alternate day and 5 t FYM /ha with 100 % RDF (25:50:00 kg NPK /ha) through water soluble fertilizers in 9 equal weekly splits is recommended for better growth, yield, efficient water and nutrient use and economical returns from summer groundnut in medium deep soils of Assured Rainfall Zone of Maharashtra.

18. The pre emergence herbicide application of 640 ml oxyflourfen 23.5% EC @ 0.150 kg a.i./ha within 2 to 3 days after sowing and post emergence application of 20 g ready mix of metsulfuron methyl 10% + chlorimuron ethyl 10% WP @ 0.004kg a.i./ha at 25 days after sowing in 500 liters of water is recommended for effective control of weeds and higher economical returns in drilled paddy of Sub montane Zone of Maharashtra

19. The herbicide application of 20 g ready mix of metsulfuron methyl 10% + chlorimuron ethyl 10% WP @ 0.004 kg a.i./ha in 500 liters of water at 15-20 days after transplanting with one hand weeding at 45 days after transplanting is recommended for effective control of weeds and higher economical returns in transplanted paddy of Sub montane Zone of Maharashtra

19. In nitrogen nutrient based organic farming of soybean(*kharif*)-onion (*rabi*) crop sequence, the application of 50 and 100 kg N ha⁻¹ to soybean and onion respectively is recommended through organic matter viz., one third each from FYM, Vermicompost and Neem seed cake coupled with N and P bio-fertilizers application.

Technology

1. Organic inputs

Organic inputs (kg ha ⁻¹)	Soybean	Onion
FYM	2500	5000
Vermicompost	1000	2000

Neem seed cake	400	800
<i>Rhizobium</i>	250 gm 10 kg ⁻¹ seed	--
<i>PSB</i>	250 gm 10 kg ⁻¹ seed	4 kg with 25 kg FYM
<i>Azotobacter</i>	--	4 kg with 25 kg FYM

2. Biological control measures for Pest/Disease in soybean and onion

Crop	Pest/Disease	Control measure
Soybean	<i>Spodoptera litura</i> Larvae	1 st spray of 10 ml <i>SINPV</i> in 10 litres of water after 45-50 days of sowing
		2 nd spray of 40 gm <i>Nomuraea rileyi</i> in 10 litres of water after 70-75 days of sowing
	Rust	Phule Agrani rust resistant variety of soybean be used for <i>Kharif</i> season
Onion	Thrips	1 st spray of 40 gm <i>Verticillium lecanii</i> in 10 litres of water after 30-35 days of transplanting.
		2 nd spray of 40 gm <i>Metarhizium anisopliae</i> in 10 litres of water after 55-60 days of transplanting.
	Purple blotch	1 st spray of <i>Pseudomonas fluorescens-I</i> @ 50gm in 10 lit water at initiation of purple blotch in onion and subsequent two sprays at 15 days interval.

21. Integrated Farming System Model, developed for 1 hectare irrigated area comprises 72% crop component, 20% fruit orchards, 3.6% shadenet and 4.4% area for animal component is recommended for achieving economic viability of small farmers. The details are as below.



Area (ha)	% Area allotted	Season		
		Kharif	Rabi	Summer
Crop component (72%)				
0.30	30	Soybean	Wheat	Leafy vegetable
0.20	20	Maize	Onion	Green gram
0.10	10	Pearlmillet	Chickpea	Cowpea
0.10	10	Lucerne	Lucerne	Lucerne
0.02	2	Hy. Napier	Hy. Napier	Hy. Napier
Horticulture component (23.6%)				
0.20	20	Orchard -40 Plants (Mango-5m x5m)		
0.036	3.6%	Shadenet : 1 st and 3 rd Year -Tomato – Cucurbits 2 nd and 4 th Year- Capsicum - Cucurbits		
Animal component (4.4%)				
0.044	4.4%	Loose housing - Milch animal-2 Cross Breed Cow, Vermicompost unit Poultry-100 birds RIR reared in 5 lots (500birds / year),		

Note: In orchard Pomegranate/Guava/ Banana can be planted in place of mango.

22. Integrated farming system model for 1.0 hectare rainfed area comprises 50 % crop component, 40% horticulture component, 5% animal component and 5% farm pond is recommended for economic viability of small farmers under Scarcity Zone of Maharashtra. The average net returns from crop component was 11%, horticulture component 10 % and animal component 79%. The details are given below.

Area (ha)	% Area allotted	Season		
		Kharif	Rabi	Summer
Crop component (50%)				
0.30	30	Cowpea	Sorghum	Fallow

0.10	10	Maize fodder	Sorghum fodder	Fallow
0.10	10	Fallow	Chickpea	Fallow
Horticulture component(40%)				
0.40	40	Dry land orchard with inter crop of (Pearl millet + Pigeon pea 2:1)		
Animal component (5%)				
0.05	5	Dairy farming: 1 Buffalo (Pandharpuri), Back yardPoultry:30 birds in 5 lot/year (Giriraj), Goat rearing: 10 female + 1 male (Osmanabadi)		
Farm pond (5%)				
0.05	5	Size 15X15X3 m		

23. Under rainfed conditions of Sub montane Zone of Maharashtra paired row sowing of soybean or groundnut in June at 30-60 x 10 cm spacing followed by planting of tobacco at 90x90 cm in August as a relay crop in medium deep soil is recommended for higher yield and economic returns.

Horticulture

24. In the context of climate change, pruning of grape variety Sharad Seedless during second fortnight of September upto first fortnight of October at 6 to 8 buds, is recommended for better yield and monetary returns

25. After initial phase of 3.5 years of high density guava plantation (2x2m and 3x2 m), heading back to the last two seasons growth in second fortnight of May, is recommended for canopy management and high yield as advancement of Technology.

26. It is recommended to use of 2.5 months stored onion seed-bulbs produced particularly via “Set Plantation Tech.nique” for 15th November planting alongwith application of sugarcane trash (0.5 kg/ m²) at 60 days after planting (an organic mulch) for upscaling of seed production potential particularly of *kharif* onion cultivars in Maharashtra State.

Animal Science and Dairy Science

27. Wood's gamma model ($Y_t = at^{be^{-ct}}$) is recommended for estimation of weekly average per day milk yield in first lactation of Phule Triveni cow

Yt=Average daily milk yield in the t^{th} week
 a= Initial milk yield, just after calving
 b= Inclining slope parameter up to peak milk yield ($b= 0.098$)
 c= Declining slope parameter ($c= 0.021$)
 t= Length of time since calving (week number)
 e= Napierian base ($e= 2.718282$)

Biochemistry

28. Drought induced profile and activities of ROS scavenging enzymes were higher in chickpea variety Vijay and in the crosses involving Vijay as a male parent. It is recommended to use Vijay as a genetic resource in chickpea breeding programme for improving drought tolerance of elite chickpea genotypes
29. The higher activity profile of defense related enzymes viz., phenylalanine ammonia lyase, chitinase and β -1,3 glucanase both under constitutive and pathogen inoculation conditions and SSR primer NKS11 is recommended for screening sugarcane clones for smut resistance.

BioTechnology

30. Molecular markers csLV34 and cssfr5 either individually or in combination are recommended for detection and rapid screening of leaf rust resistance gene *Lr34* in aestivum (bread) wheat improvement programmes.
31. For quick and accurate identification of *Xanthomonas axonopodis* pv. *punicae* causing oily spot in pomegranate SCAR-XAP primer amplifying a specific 152 bp fragment is recommended.
32. For soybean rust resistance breeding complementary genes specific Satt 191-222bp (*Rpp1b*) and Satt 215-123bp (*Rpp2*) molecular markers simultaneous use is recommended.

Plant Physiology

33. *Rabi* sorghum genotype RSV 1098 is recommended as a donor parent in crop improvement programme for drought tolerance based on physiological traits like RLWC, SPAD value, Leaf temperature difference, Photosynthesis rate, Transpiration rate, Stomatal conductance, Harvest index and root traits.

Seed Technology

34. Conditioning of *Dolichous* bean seed in wetted gunny bag for 12 hrs. followed by 2 hrs. hydropriming coupled with shade drying

till original moisture content (10%) by using "betweenpaper method" comprised of four towel paper at 25°C temperature is recommended for laboratory germination test.

Post Harvest Technology

35. Use of 20 per cent lac based wax, SH-03 is recommended for extension of shelf life of pomegranate Cv. Bhagwa upto 12 days at room temperature ($23.3 \pm 4^{\circ}\text{C}$, $55.6 \pm 14\%$ RH), 32 days in zero energy cool chamber ($17.45 \pm 3^{\circ}\text{C}$, $87.75 \pm 4\%$ RH) and upto 52 days in cold storage (8°C , 92.5 ± 2.5 RH) conditions.

36. Guava *burfi* protocol is recommended as follows

General purpose

Mixture of 1 kg cold extracted pulp, 550 g sugar, 50 g bengal gram flour, 50 g cow ghee, 50 g skim milk powder, 5 g salt, 2 g citric acid and 1 per cent pectin be heated till 82°B total soluble solids.

Fasting purpose

Mixture of 1 kg cold extracted pulp, 550 g sugar, 50 g Indian Water Chestnut (*Shingoda*) flour, 50 g cow ghee, 50 g skim milk powder, 5 g salt, 2 g citric acid and 1 per cent pectin is heated till 82°B total soluble solids.

Crop Protection

37. It is recommended to use the following biofertilizers Technology in sugarcane seed plot for saving 25% N and 25% P_2O_5 for improved seed yield and quality.
 - Treat the sugarcane sets in the solution of 10 kg *Gluconacetobacter diazotrophicus* + 1.25 kg PSB in 100 lit. water/ha for 30 min before planting OR Use the planting material from last year Acetobacter inoculated plot.
 - Apply 20 t FYM, 450 kg N, 172 kg P_2O_5 and 115 kg K_2O per hectare to this sugarcane seed plot.
38. It is recommended to treat the sugarcane sets before planting or spray the liquid culture at 60 days after planting as follows for saving 50% N and 25% P_2O_5 to the *Suru* sugarcane besides improved sugarcane yield and quality and sustenance of soil fertility. Treat the sugarcane sets in the solution of 10 kg *Gluconacetobacter diazotrophicus* or 1 litre liquid culture of *G. diazotrophicus* + 1.25 kg PSB in 100 lit water/ha for 30 min before planting



Plant Pathology

39. It is recommended that, pruning of vineyards be avoided prior to the second fortnight of September and after the first fortnight of October for minimizing disease incidence of downy mildew, powdery mildew and anthracnose coupled with higher yield of grapes.

Entomology

40. Two to three sprays of buprofezin 25% SC @ 20 ml per 10 liters of water at 15 days interval are recommended for the control of sucking pests (aphid, jassid, thrips and whitefly) on cotton.
41. Three sprays of ready mix insecticide (chlorpyrifos 50% + cypermethrin 5%EC) or (cypermethrin 3% + quinalphos 20%EC) @ 20 ml per 10 liters of water at 15 days interval are recommended for the control of sucking pests and bollworms on non-Bt cotton.
42. Sprayings of chlorantraniliprole 18.5% SC @ 4 ml or ready-mix insecticide (deltamethrin 1% + triazophos 35% EC EC) @ 20 ml/10 l of water, need based application at an interval of 15 days starting from flowering are recommended for the control of shoot and fruit borer (*Leucinodes orbonalis* Guen.) of brinjal.

Agriculture Engineering

43. Computer software developed by Mahatma Phule Krishi Vidyapeeth "Phule Runoff Estimator" is recommended for calculation of volume and peak rate of runoff.
44. "Phule Root Box structure" (Dimensions 10.0m Length X 2.0 m Width X 1.0 m Height) is recommended for screening of drought tolerance genotypes in field crops (e.g. *rabi* sorghum).
45. The drainage coefficient (mm) values developed by Mahatma Phule Krishi Vidyapeeth are recommended for the design of surface drainage system for Tahsils of Nashik district. Alternatively the maps developed in GIS are recommended for estimating the drainage coefficient values.
46. The drainage coefficient (mm) values developed by Mahatma Phule Krishi Vidyapeeth are recommended for the design of surface drainage system for Tahsils of Satara district. Alternatively the maps developed in GIS are recommended for

estimating the drainage coefficient values.

47. Under deficit irrigation management, *rabi* onion should be irrigated with 20% less than required water during bulb initiation stage (i.e. 51 to 75 days after transplanting) to obtain maximum production of quality onion bulbs in medium deep soils of scarcity zone of Maharashtra.
48. The crop coefficients given in following table are recommended for the estimation of water requirement of onion.

Week since transplanting	Kc values	Week since transplanting	Kc values
1	0.63	9	1.15
2	0.69	10	1.20
3	0.73	11	1.23
4	0.79	12	1.21
5	0.85	13	1.14
6	0.92	14	1.01
7	1.00	15	0.81
8	1.08	16	0.54

Alternatively following equation is recommended

$$K_c = 8.062 \left(\frac{t}{T} \right)^5 - 24.31 \left(\frac{t}{T} \right)^4 + 20.15 \left(\frac{t}{T} \right)^3 - 5.761 \left(\frac{t}{T} \right)^2 + 1.498 \left(\frac{t}{T} \right) + 0.561$$

Where K_c is the crop coefficient of onion on t^{th} day; t is day and T is total crop growth period in days

49. Under deficit irrigation management the following yield response factors are recommended for estimating the yield of *Rabi* onion under different irrigation strategies.

Seasonal yield response function (K_y) (to be used in Doorenbos and Kassam equation) = 1.59

Stage wise yield response function (K_y) (to be used in Stewart equation) are

Vegetative stage K_{y_1} (1-50 days) = 0.654

Bulb initiation stage K_{y_2} (51-75 days) = 0.542

Bulb development stage K_{y_3} (76-100 days) = 0.305



50. “**Phule DSS-IWM**” computer software developed by Mahatma Phule Krishi Vidyapeeth is recommended for deciding optimum irrigation water management based on expected yield and benefits for different crops.

51. The crop coefficients given in following table are recommended for the estimation of water requirement of sweet corn.

Week since sowing	K _c	Week since sowing	K _c
1	0.61	9	0.89
2	0.58	10	0.83
3	0.63	11	0.77
4	0.71	12	0.70
5	0.80	13	0.63
6	0.87	14	0.60
7	0.91	15	0.59
8	0.91		

Alternatively following equations are recommended

$$K_{c_t} = -8.523 \left(\frac{t}{T} \right)^5 + 31.21 \left(\frac{t}{T} \right)^4 - 38.39 \left(\frac{t}{T} \right)^3 + 17.82 \left(\frac{t}{T} \right)^2 - 2.174 \left(\frac{t}{T} \right) + 0.659$$

Where, K_{c_t} is the crop coefficient of sweet corn on t^{th} day; t is day and T is total crop growth period in days

52. Cultivation of onion under shadenet house conditions is not recommended due to abnormal bulb development and economical yield.

53. The four layer filter is recommended for recharge of bore wells to obtain more filtration efficiency as given below.

Specifications of four layer filter

Filter layer No.	Filter layer thickness (top to bottom) (cm)	Filter material and its size (mm)
1	25	Brick flakes (24 to 28)
2	25	Sand grade I (0.6 to 2.00)
3	25	Angular gravel grade I (9.5 to 15.5)
4	25	Pea gravel grade I (20 to 24)

54. Turmeric planting on both sides of 75cm wide ridges at spacing of 37.5 X 30cm alongwith drip irrigation at 40% CPE at an alternate day is recommended for efficient water use and maximization of yield in medium black soils under Plain Zone of Maharashtra.

55. The application of 25 t ha⁻¹ FYM and following fertigation schedule at 75% RDF (150:75:75, N:P₂O₅: K₂O Kg ha⁻¹, respectively) in the form of water soluble fertilizers through drip irrigation (scheduled at alternate day of 50 % CPE) is recommended for maximum turmeric yield and optimum soil fertility in medium black soils under Plain Zone of Maharashtra.

Fertigation Schedule for Turmeric

Sl. No.	Crop Stage	Duration after planting of Turmeric	Nutrients Applied (kg ha ⁻¹)			Nutrients Applied (kg per week)		
			N	P	K			
1	Planting to establishment	3 rd to 4 th week (2 equal splits)	15	15	7.5	7.500	7.500	3.750
2	Active vegetative stage	5 th to 14 th week (10 equal splits)	75	22.5	15	7.500	2.250	1.500
3	Rhizome initiation stage	15 th to 26 th week (12 equal splits)	37.5	22.5	22.5	3.125	1.875	1.875
4	Rhizome maturation stage	27 th to 32 nd week (6 equal splits)	22.5	15	30	3.750	2.500	5.000
	Total	30 week	150	75	75			



Social Science

56. Majority of the sugarcane growers have very less knowledge and adoption about use of silicon, composite bio-fertilizers, Phosphate Solubilizing Bacteria (PSB), neem seed cake in Urea, micronutrients and trash decomposing culture. For increasing the knowledge level of the sugarcane growers, it is recommended to organize awareness campaigns through print and electronic media, whereas, for increasing the adoption level, trainings and method demonstrations should be organized by the State Department of Agriculture in collaboration with sugar factories.

Sugarcane INM Technology

Use of silicon 400 kg/ha through bagasse ash 1.5 tonnes / ha or Calcium Silicate 832 kg / ha for increased sugar and cane yield of one plant cane and two ratoons

Use of Acetobacter, Azotobacter, Azospirillum and PSB @ 1.25 kg, each, per ha. for saving of 25% N and P fertilizers in ratoon

Sett treatment by Phosphate Solubilizing Bacteria (PSB) 1.25 kg./ ha. for 25% P fertilizer saving

Use of neem seed cake in a ratio of 1:6 in Urea

Use of micronutrients (25 kg FeSO_4 , 20 kg ZnSO_4 , 10 kg MnSO_4 and 5 kg Borax / ha)

Use of trash decomposing culture 10 kg / ha in ratoon

57. For increasing the adoption of the university recommended pomegranate oily spot (*bacterial blight*) management Technology. It is recommended that efforts should be made to create awareness about oily spot management Technology by organizing the campaign by the State Department of Agriculture in collaboration with the KVKs, Regional Extension Centers, and District Extension Centers of the Agricultural Universities.

Diseases Management Practices

- Nursery Management
 - Plant Protection measures – Physical, Chemical and Biological
 - Rejuvenation of Oily Spot (*bacterial blight*) affected orchards
58. As the results of White Grub Bio-control management Technology through *Metarhizium* demonstrated by MPKV, Rahuri are found prominent effect, it is recommended to carry

out intensive extension programmes by State Department of Agriculture in co-ordination with the Agriculture University for motivating the community efforts for increasing adoption of white grub management Technology.

White grub management Technology

- On the second and third day of pre-monsoon showers community collection of White grub adults from their host plants viz; Neem, Ber, Babool and destruction by using Kerosine + Water
 - Application of *Metarhizium anisoplae* @ 25 kg/ha well incubated in FYM for 3-4 days
 - For management of White grub in ratoon sugarcane drenching of *Metarhizium anisoplae* @ 50 gm + $\frac{1}{2}$ cup milk/10 lit of water in the holes at sugarcane stool made by *Padegaon* Crow Bar at wapsa (field capacity) condition.
59. The adoption of drip Technology for sugarcane cultivation under farmers participatory action research programme in Western Maharashtra resulted in increase in 25.38 % yield, 50.19 % water saving and increased economic returns of 33.5 % (Rs 70615 per ha) . Hence, large scale adoption of drip irrigation in sugarcane is recommended.
60. The additional increase of 48 and 77 per cent in the output levels and reduction of 19 and 30 per cent in the per quintal cost of cultivation in medium over low and in high over medium adoption group was the result of adoption of recommended package of practices for *kharif* groundnut cultivation. For the output maximization and cost reduction, it is recommended that the farmers must adopt the recommended package of practices.
61. The additional increase of 32 and 54 per cent in the output levels and reduction of 12 and 24 per cent in the per quintal cost of cultivation in medium over low and in high over medium adoption group was the result of adoption of recommended package of practices for safflower cultivation. For the output maximization and cost reduction, it is recommended that the farmers must adopt the recommended package of practices.
62. The additional increase of 37 and 50 per cent in the output levels and reduction of 14 and 20 per cent in the per quintal cost of cultivation in medium over low and in high over medium adoption group was the result of adoption of recommended package of practices for sunflower cultivation. For the output



maximization and cost reduction, it is recommended that the farmers must adopt the recommended package of practices.

63. The additional increase of 31 and 49 per cent in the output levels and reduction of 10 and 21 per cent in the per quintal cost of cultivation in medium over low and in high over medium adoption group was the result of adoption of recommended package of practices for soybean cultivation. For the output maximization and cost reduction, it is recommended

that the farmers must adopt the recommended package of practices.

STAT

64. On the basis of path analysis, application of fertilizer nutrient as per yield target (STCRC approach) with FYM is recommended for enhancing onion seed production, increasing use efficiency of added nutrients, maintaining soil health and reducing nutrient mining of inceptisol soil.

Seed Production Programme of 2014-15

(Fig. in qtls)

Type	Cereals	Pulses	Oilseeds	Fiber crops	Fodder crops	Green Manuring crops	Total
Nucleus	677.26	689.42	1322.78	2.33	84.22		2776.01
Foundation	2033.04	207.37	430.60				2671.01
Certified/Truthful	2699.59	1818.31	722.21	11.20	52.68	4.00	5307.99
Total	5409.89	2715.10	2475.59	13.53	136.90	4.00	10755.01

Production of planting material of Horticulture Crops

Nursery plants /Grafts	Ornamental plants	Total	Vegetables (qt)		
			Nucleus	Truthful	Total
1229008	35200	1264208	5.74	181.09	186.83

Biopesticides and Biofertilizer production

Particulars	Liquid (Litre)	Solid (Qt)
Biopesticide	350	165.50
Biofertilizers	3160.50	604.97



4. Extension Education

The Extension Education activities include training of extension personnel, officers of development departments, farmers and dissemination of information through trainings, demonstrations, meetings, discussions, farmers rallies, farm and home visits, exhibitions, publications, newspapers, magazines, etc.

Extension Education activities are being undertaken through Directorate of Extension Education, Agriculture College Extension Blocks, Agril. Technology Information Centre (ATIC), Communication Centre, Regional Extension Centres (RECs), Krishi Vigyan Kendra (KVK), Zonal Agricultural Research and Extension Advisory Committee Meeting (ZAREACs). The Directorate of Extension Education was set up in 1981 with following objectives.

- To conduct short and long duration vocational training for the benefit of farming community in different agro-eco-situations.
- To assess and refine the latest Agricultural Technology through front line demonstration for its wider adoption.
- To provide farm information services through various extension activities
- To demonstrate the improved Technology on the farmer's fields to convince them about advantages and benefits of improved Technology i.e. result demonstration.
- To solve local problems in the light of research findings and getting feedback for strengthening research.

In addition to this, this Directorate performs following activities

1. Co-ordination of extension education activities in the jurisdiction of University.
2. Co-ordination of Communication Centre, RECs, DECs, ATIC and AICs functioning.
3. Organization of trainings.
4. Organization of Farmers Rallies & Exhibitions.

With a view to fulfilling the mandatory requirements of extension education the extension education activities are undertaken by the Mahatma Phule Krishi Vidyapeeth, Rahuri through the following units:

1. Krishi Vigyan Kendra

KVK, Dhule was established in May 1983 while KVK Mohol (Solapur), Borgaon (Satara) and Mamurabad Farm (Jalgaon) was established in the year 2011-12 under the jurisdiction of Mahatma Phule Krishi Vidyapeeth, Rahuri for the operational areas in the above districts with following objectives.

1. To organize need-based training in Agriculture and allied enterprises to practicing farmers, farm women, rural youth and extension functionaries.
2. To conduct front line demonstrations on farmers' field's on various production Technologies about important crops of the district.
3. To conduct on farm trial/adaptive trials in Agriculture and allied enterprises based on location specific problems.
4. To organize different extension activities to disseminate Technologies.

2. Agricultural College Development Block

Practical training in extension education is being given to the students in College Development Blocks. There are about 60 to 100 villages attached to the constituent colleges viz. Pune, Dhule and Kolhapur. The College Development Block also serves as a laboratory to transfer the improved Technology developed by the university. The viability and usefulness of Technology developed by the university is tested under different field conditions and farming situations. The field staff working at different blocks provides guidance and help to the farming community. The extension staff also extends the efforts to evaluate and record the expected social and economical changes among farmers. The planning and implementation of extension programmes is carried out by the Department of Extension Education at different colleges.

3. Regional Extension Centres (REC) / District Extension Centres (DEC)

To test and transfer the improved Technology from time to time in adjoining areas of respective research and educational institutes, three RECs are started at the constituent colleges, viz., Pune, Dhule and Kolhapur and one at Central Campus, MPKV, Rahuri. Regional Extension Centre consists of four SMS in the subject of Agronomy, Animal Husbandary, Horticulture and Plant Protection. The activities of each REC are governed by Extension Agronomist at regional level, which



is Technically controlled by Director of Extension Education.

To carry out extension education activities effectively and efficiently, five District Extension Centres (DECs) have been started at different research stations viz. Jalgaon, Padegaon (Satara), Solapur, Digraj (Sangli) and Niphad (Nashik). No separate staff is provided for DECs. The important objectives of the innovative programme are:

1. To organize short duration training classes for upgradation of knowledge of existing staff.
2. To arrange farmers trainings for addressing issues in farming.
3. To interact with farmers and officers for getting feed back on research findings.
4. To organize monthly meetings of different allied departments and interact on various field problems.
5. To integrate teaching, research and extension education activities.

The staff under the RECs and DECs usually undertakes activities relating to transfer of Technology in the adjacent areas. The activities like, monthly district workshops, fortnightly trainings, demonstrations on farmers fields, farmers' rallies and Technical guidance to farmers are also organized by the centre.

Every Regional Extension Center and District Extension Centre are provided a Mobile Crop Dispensary Van with the facilities to undertake soil and water analysis, diagnosis of diseases, insect, pest instantly on the spot in different villages. The itenery of this activity is announced and communicated well in advance to the farmers of respective villages and accordingly the farmers avail the guidance and necessary help to solve their problems.

4. Communication Centre

The communication centre of Mahatma Phule Krishi Vidyapeeth, Rahuri was established in May 1982 with the financial assistance of ICAR. However, after discontinuance of the financial assistance from the ICAR, it is being run with own resources of the university. The centre is established for effective use of mass media in transfer of Technology. The unit produces different type of farm literature, publicity of news items,

organization of exhibitions, organising broadcasting of Agril. Programmes for transfer of Technology through All India Radio and Doordarshan and organising public relation media for communication of Agricultural Technology and guidance through correspondence.

5. Agricultural Technology Information Centre (ATIC)

The Agricultural Technology Information Centre (ATIC) is a single window delivery, dissemination and supporting system for various innovative and farm worthy Tech.niques evolved at the university and affiliated organizations in the pursuit of research and excellence. This centre started its actual functioning w.e.f. 13th August 2001 with the following objectives

1. To empower farmers through direct access to information and knowledge.
2. To create strong linkage between different research divisions, units and user Technology users.
3. To help farmers in problem solving and decision making.
4. To facilitate and dynamic feed forward and feed back mechanism.
5. To bridge the gap between attainable and attained in the crop, livestock development and production.
6. To generate financial resources through sales and services.
7. To disseminate the new Technologies developed by the University through organizing Farmers Rallies, Field Visits and Agril. Exhibitions.

The ATIC is supervised by a Manager with four subject matter specialists (SMS) Agronomy, Horticulture, Plant Protection and Animal Husbandry & Dairy and a Public Relation Officer (PRO). The extension activities like field visits, replying the queries of the farmers and other stakeholders and the centre performs diagnostic services in coordination with the other departments of the University. Besides, seed and seedlings, processed products and publications are also sold through ATIC to the end users.

Helpline, Kisan Call Centre, Separate Website and Video Conferencing Unit are operational at this centre for addressing the issues of the farmers.



Major Extension Activities

- The 42nd Joint Agresco meet -2014 of four SAUs in Maharashtra was organized at Dr. BSKKV, Dapoli during May, 2014. The function was inaugurated by Shri Prithviraj Chavan, Hon'ble Chief Minister of Maharashtra. Shri Radhakrishna Vikhe Patil Hon'ble Minister of Agriculture and Marketing M.S was the Chief Guest. Vice- Chancellors of all SAUs of Maharashtra were present for this meeting. University scientists presented their recommendations. In all MPKV has given 64 recommendations, released 11 varieties & 3 implements. On this occasion digital publication (Crop CDs) of the University were released by the dignitaries.
- The Zonal Research and Extension Advisory Council's meeting (Kharif -2014) was organized at YASHADA, Pune on 11th June, 2014 for Nashik, Pune and Kolhapur divisions. Shri Umakant Dangat, Hon'ble Commissioner of Agriculture (M.S.) was the chief guest. The function was chaired by Dr. T.A. More, Hon'ble Vice Chancellor, MPKV, Rahuri. Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri made brief presentation on 'Agricultural Extension in Changing Scenario' and Action Taken Report and guided the participants. All directors from Dept. of Agriculture, Heads of Departments, MPKV, Rahuri, Crop Specialists, In-charge Officer, Communication Center, MPKV, Rahuri, District SAOs were present for the meeting. In all 185 participants including SDAOs, TAOs and Programme Co-ordinators from KVKs and Scientists from university attended the said meeting.
- The staff review meeting RECs, DEC's, ATIC, Communication Centre and KVKs were organized on May 30, 2014. Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri made brief presentation on Tools, Policies and Practices in Agricultural Extension and guided the participants. All scientists made presentation of extension activities of last five year. In all 55 scientists and staff from all RECs, DEC's and KVKs attended the said meeting.
- The pre-seasonal *kharif* meetings were jointly organized by the MPKV, Rahuri and Dept. of Agriculture M.S. in the jurisdiction of MPKV, Rahuri during April – June 2013. The scientists from the Regional and District Extension Centers and Krishi Vigyan Kendras participated and guided the officials from line departments.
- The Monthly District Workshops were jointly organized by the MPKV, Rahuri and Dept. of Agriculture M.S. in the jurisdiction of MPKV, Rahuri. Such MDWs were organized regularly. The university scientists guided the officials from the line departments. Field visits were also organized on the demonstration farms.
- A farmers training programme on 'Onion Production Technology' was organized by ATIC, MPKV, Rahuri under RKVY project during June 2014. Director of Research Dr. R. S. Patil was present at the programme and guided the participants. 50 onion producers attended the training programme.
- The Scientific Advisory Committee meetings were held at Krishi Vigyan Kendra, Narayangaon & Baramati on June 07 & June 21, 2014 respectively. The meeting was organized to review the progress made by KVK and their future action plan. Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri participated in the meeting and guided the KVK staff.
- The farmers rally on 'White Grub Management Technology' was organized by Regional Extension Centre, Kolhapur on June 13, 2014 at *Kasarwadi*. The programme was chaired by Dr. K.D. Kokate, Director of extension Education, MPKV, Rahuri. A large numbers of sugarcane growers attached the programme.
- The farmers rally on 'Sugarcane Production Technology' was organized by Regional Extension Centre, Kolhapur on June 14, 2014 at *Ambap*. The function was inaugurated by Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri. A large number of sugarcane growers attached the rally.
- The Diagnostic and Surveillance Team visits were organized by scientists from Regional and District Extension Centers and Krishi Vigyan Kendras on farmers field.
- A two day workshop on 'Use of Modern Implements



- / Machinery for Crop Cultivation' was jointly organized by DR. ASCAE, Rahuri and John Deere Co. Ltd., Pune at Central Campus, MPKV, Rahuri. The workshop was inaugurated by Dr. K. D. Kokate, Director of Extension Education, MPKV, Rahuri. In all 15 engineers of John Deere Company participated in the workshop.
- The Zonal Research and Extension Advisory Council's meeting (Rabi and Summer -2014) was organized at NARP, Solapur on 11th September, 2014 for Nashik, Pune and Kolhapur divisions. The function was chaired by Dr. T.A. More, Hon'ble Vice Chancellor, MPKV, Rahuri. Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri made brief presentation on 'Convergence for Effective Technology Application' and Action Taken Report and guided the participants, Director of Research Dr. R.S. Patil briefed about various recommendations and released varieties. All directors and Joint Directors from Dept. of Agriculture, Heads of Departments, MPKV, Rahuri, Crop Specialists, In-charge Officer, Communication Center, MPKV, Rahuri, and District SAOs were present for the meeting. In all 136 participants including SDAOs, TAOs and Programme Co-ordinators from KVKs and Scientists from university attended the said meeting.
 - The Dept. of Food Science and Technology, PGI, MPKV, Rahuri organized one month training programme on 'Fruit and Vegetable Processing Technology' during July 2014. The inaugural function of this training was chaired by Dr. K. D. Kokate, Director of Extension Education, MPKV, Rahuri. He guided the participants regarding new avenues in the processing industry and its importance. Dr. Suresh Thorat, Head, Dept. of FST and others were present for the function. In all 31 trainees attended the training programme.
 - A two day training programme was organized under HORTSAP for the officers of Agriculture Department, Pest Monitor, Pest Scout, Master Trainers and Computer Operators at MPKV, Rahuri during September, 2014. The function was chaired by Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri. Director of Research Dr. R.S. Patil and other dignitaries were present for programme.
 - A training programme on Polyhouse Production Technology was organized at ATIC, MPKV, Rahuri during September 2014 for members of Farmers Scientists Forum. The programme was inaugurated by Director of Extension Education Dr. K.D. Kokate. Dr. S.D. Gorantiwar, Head, Dept. of IDE, Dr. A.V. Solanke and other scientists were present.
 - A workshop on 'Participatory Rural Appraisal' was organized by Dept. of Extension Education in collaboration with Extension Education Institute, Ananad at Mahatma Phule Krishi Vidyapeeth, Rahuri during August 2014. The certificate distribution programme of the workshop was chaired by Hon'ble Vice-Chancellor Dr. T. A. More while, the workshop was inaugurated by Director of Extension Education Dr. K.D. Kokate. Dean (F/A) & DI, Dr. B.R. Ulmek, Dr. S.B. Shinde, Head, Dept. of Extension Education, Dr. M. M. Patel, Course Director, EEI, Ananad and other dignitaries were present for the programme. Lectures on various topics related to participatory rural appraisal were arranged for trainees. In all 50 scientists from university were participated in the workshop.
 - The two day training programme on Improved Goat Farming was organized by Dept. of Animal Sciences and Dairy Sciences during August 2014 at ATIC, MPKV, Rahuri. The programme was inaugurated by Director of Extension Education Dr. K.D. Kokate. He guided the participants regarding the importance goat farming and its relevance in international market. Dr. Y. G. Fulpagare, Head, Dept. ASDS, Dr. Mandakmale, Dr. Solanke and other dignitaries were present for the programme. In all 50 goat farmers attended the said training programme.
 - The Regional Extension Centers, District Extension Centers and Krishi Vigyan Kendra's had organized the Contingent Crop Planning Campaign with the help of Dept. of Agriculture MS during July 2014.
 - The review meeting of RKVY project entitled 'Transfer of Integrated Crop Management Technologies developed by MPKV, Rahuri' was organized on July, 2014. All the PI, Co- PI of the said project attended the meeting and presented the progress made. Dr. K.D. Kokate, Director of



Extension Education, MPKV, Rahuri guided the participants. In all 20 scientists from all RECs, DEC's and KVKs attended the said training.

- The Regional Extension Centres, District Extension Centers and Krishi Vigyan Kendra had participated in the 'Swachh Bharat Abhiyan' and organized cleaning campaign in their respective areas during October 2014.
- The *Krishidarshani - 2014* is bestowed with the prestigious In House Excellence Award by Shilaja Nayar Foundation, Mumbai.
- Zonal Workshop of KVK: Krishi Vigyan Kendra, Baramati and Zonal Project Directorate, Hyderabad jointly organized the Zonal Workshop of KVKs for Maharashtra, Andhra Pradesh and Telangana state during October, 2014. The Programme Co-ordinators of KVKs presented the future action plan. The workshop was inaugurated by Hon. Rajendra Pawar, President, Baramati Agriculture Development Trust. Dr. N. Sudhakar, Zonal Project Director, Zonal Project Directorate, Hyderabad was present as a chief guest Dr. K. D. Kokate, Director of Extension Education, MPKV, Rahuri and other dignitaries guided the participants. In all 79 Programme Co-ordinators, and other staff of KVKs participated in the programme.
- The Director of Extension Education Co-ordination Committee meeting was organized at College of Agriculture, Pune on October 29th, 2014. The meeting was chaired by Dr. K. D. Kokate, Director of Extension Education, MPKV, Rahuri. All the Directors of Extension education from SAUs from Maharashtra were present for the meeting.
- The training programme for 'KCC Agents/ Supervisors/Co-ordinators (Kharif)' was organized at College of Agriculture, Pune during 17 – 18 October, 2014 in collaboration with MANAGE, Hyderabad. The function was chaired by Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri. Total 50 KCC agents participated in this training programme.
- The training cum workshop on 'Application of ICTs in Modified Extension Reforms' was organized at College of Agriculture, Pune during 18-21 November, 2014 in collaboration with MANAGE, Hyderabad. The function was chaired by Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri. In all, 40 faculty members and KVK officials participated in this workshop.
- The training programme on AI Techniques for Improvements in Crossbreeds was organized by the Department of Animal Science and Dairy Science, MPKV, Rahuri during December 2014. Dr. K.D. Kokate Director of Extension Education, MPKV, Rahuri inaugurated this training programme. Experts from university gave information on various topics related to the training. In all 50 farmers participated in the said training programme.
- The workshop on Dryland Farming Techniques was organized in collaboration with the Dept. of Agriculture (M.S.) for farmers. The function was chaired by Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri. Experts from university gave information on dryland farming Techniques. Total 70 farmers were participated in the said training programme.
- **Retrospection – 2014 :** A programme on Retrospection – 2014 was organized on 29th January, 2015 at Central Campus, Rahuri. Hon. Vice-Chancellor Dr. T. A. More presided over the function, while Shri. Popatrao Pawar, Former Sarpanch, Hivarebazar, Ahmednagar was present as chief guest. On this occasion the reports regarding extension education, education, research, Agril. engineering, lower Agril. education, administration, development works and accounts conducted during the year-2014 were presented by Dr. K. D. Kokate, Director of Extension Education, Dr. R. S. Patil, Director of Research, Dr. P.A. Turbatmath, Associate Dean, Dr. ASCAE, Shri. Sunil Wankhede, Registrar, Shri. Milind Doke, University Engineer and Shri. V.B. Jadhav, Comptroller, MPKV, Rahuri respectively. An exhibition depicting the significant activities of the university related to education, research and various extension activities carried out by College Extension Blocks, Research centers was organized. The university publication *Krishi Darshani-2015* was released at the auspicious hands of dignitaries. All HODs, Professors, staff, students and members of Farmers- Scientists Forum were present for the programme.



- The training programme for 'KCC Agents/ Supervisors/Co-ordinators (Rabi)' in two batches was organized at College of Agriculture, Pune during 20 and 21 January, 2015 in collaboration with MANAGE, Hyderabad. The function was chaired by Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri. Total 60 KCC agents were participated in this training programme. The Director of Extension Education, MPKV, Rahuri and other dignitaries from MANAGE, Hyderabad guided the participants.
- The staff review meeting RECs, DEC's, ATIC, Communication Centre and KVKs were organized on February 09, 2015. All extension scientists made brief presentation of extension activities of the previous year. In all 70 scientists and staff from all RECs, DEC's and KVKs attended the meeting.
- **Action Plan Workshop of KVK :** Mahatma Phule Krishi Vidyapeeth, Rahuri and Zonal Project Directorate, Hyderabad jointly organized an Action Plan Workshop of KVKs for western Maharashtra during 18-19 March, 2015 at MPKV, Rahuri. The Programme Co-ordinators of KVKs presented their action plan and it was finalized in consultation with university experts. The workshop was inaugurated by Hon'ble Vice-Chancellor Dr. T. A. More. Dr. N. Sudhakar, Zonal Project Director, Zonal Project Directorate, Zone V Hyderabad was present as a chief guest, Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri and other dignitaries guided the participants. In all 137 Programme Co-ordinators, SMSs and other staff of KVKs participated in the programme.
- The KVK, Borgaon organized Agriculture Mechanization Day at Taluka Seed Farm, Karad on 19 March, 2015 in collaboration with Department of Agriculture (MS). The function was chaired by Dr. K.D. Kokate, Director of Extension Education, MPKV, Rahuri. Total 105 farmers participated in this programme.
- The training programmes on Eco –Friendly Pest and Disease Management and Integrated Crop Management Technology Dissemination were organized at Central Campus, Rahuri during March 3-5 and 11-13, 2015 respectively in collaboration with Zonal Project Directorate, Hyderabad. Experts from university gave information on various topics related to the selected training topics. In all 29 participants from various KVKs attended these training programmes.
- Agro Technology Week was celebrated at Krishi Vigyan Kendra, Dhule during 10-13 February, 2015 and at Krishi Vigyan Kendra, Mohol during 12-14 February, 2015. Front line demonstrations, Agril. Exhibition etc. were organized at the central farm of Krishi Vigyan Kendra. The inaugural function was presided over by Dr. K.D. Kokate Director of Extension Education, M.P.K.V. Rahuri. The five day Technical programme covered various Technical deliberations from diversified field of Agriculture. Farmers, students and officers from the KVK jurisdiction visited the crop cafeteria depicting various Technologies recommended for farmers.
- Agro Technology Week was celebrated at Krishi Vigyan Kendra, Mohol during 12-14 February, 2015. Front line demonstrations, *Mahila Melawa* etc. were organized at the central farm of Krishi Vigyan Kendra. The inaugural function was presided over by Dr. K.D. Kokate Director of Extension Education, M.P.K.V. Rahuri. The three day Technical programme covered various Technical deliberations from diversified field of Agriculture. The farmers, women farmers, youth and officers from the KVK jurisdiction participated in the Agro Technology Week.
- The Director of Extension Education, MPKV, Rahuri Dr. K.D. Kokate visited operational village Shindewadi, Dist. Satara under KVK, Borgaon on January 30, 2015 and seen various demonstrations and interacted with farmers. He also interacted with the KVK staff and guided them.
- The Director of Extension Education, MPKV, Rahuri Dr. K. D. Kokate attended *Sahyadri Krushiratna Sanman* Award ceremony organized by Doordarshan Kendra, Mumbai on March 03, 2015. He felicitated the award winning farmers and interacted with these farmers.



Directorate of Extension Education
Major Extension Activities carried out during 2014-2015

Sl. No.	Activity	No. of activities carried out during 2012-13	No. of Beneficiaries
1.	Training Programmes organized		
i.	For farmers, farm women and youth	159	6890
ii.	For staff of development department	24	1586
iii.	Interaction training programme between farmers and scientists	27	956
2.	Workshop and seminars attended		
i.	Monthly district workshops	108	1956
ii.	Zonal workshops (ZREAC) Rabi	02	205
iii.	Seminar/workshop attended by Univ. Scientists	29	1456
3.	Demonstrations and farm trials		
i.	Method demonstrations	542	3560
ii.	Result demonstrations	425	425
iii.	Front line demonstrations	1575	1575
4.	Other extension education programmes		
i.	Meeting and group discussion	368	4580
ii.	Field visit/shivar pheries	586	481
iii.	Field days	21	
iv.	Farm and home visit	649	782
v.	Farmers rallies	172	--
vi.	Agril. Exhibition	46	--
vii.	Diagnostic and Surveillance team visit	147	--
viii.	Lecture by univ. scientists in diff. Extn. Programme organized by Agril. Dept. NGOs.	456	--
ix.	No. of farmers queries replies	2789	--
x.	Training classes attended and participated by Univ. scientists	258	--
xi.	Visit to Kharif and rabi trials/adaptive trials demonstrations etc. by Univ. scientists.	680	--
xii.	Farmers- Scientist Forum meetings	76	1556



5.	Publicity and publications		
a) Publicity			
i.	News items: Newspaper / Radio/ TV	1611	--
ii.	Articles in newspapers/magazines		--
iii.	Radio programmes	239	--
iv.	Doordarshan programme	59	--
v.	Other TV programmes		--
b) Publications (No.)			
i.	Krishidarshani - 2014	30000	
ii.	Shri Sugi (Kharif, Rabi & Summer)	7690	
c) Farm publications			
i.	Folders	15000	
ii.	Other literature	78	
d) No. of persons visited to Central Campus Rahuri and other campuses of University		CC, Rahuri	Other Centers
i.	Farmers	50368	4529
ii.	Students		2564
iii.	Trainees		356
iv.	Officers		242
e) No. of VIP visits			23
6.	Mobile Van Programme		
i.	No. of questions solved	4560	4560
ii.	No. of water samples tested	619	619
iii.	No. of soil samples tested	1254	1254
iv.	No. of pests samples tested	753	753
v.	No. of diseases samples tested	325	325
7.	Help line/Telephone Calls attended	41893	41893



5. Major Events

Kharif ZREAC Interface



The Zonal Research and Extension Advisory Committee meeting for *kharif* was organized at YASHADA, Pune. In his presidential address Hon'ble Vice-Chancellor Dr. T. A. More hoped that the second green revolution would be attained through dryland Agriculture. He said that 83 per cent of the states total area comes under rainfed area and in spite of this Maharashtra is a well known for horticulture. MPKV has developed Technologies which need to be adopted by the farmers, he said, Shri. Umakant Dangat, Commissioner (Agriculture), M.S. in his address reiterated for a strong linkage between research and extension for the benefit of farmers. Farmers need to become good economists and evaluation of disseminated Technologies need to be done, he said, Dr. K. D. Kokate, Director of Extension Education in his presentation put forth the status of extension system at national and international level and challenges confronting it as well as the future directions. He stated that upto 2050 there will be more young population in the country, thereby; appropriate strategies are needed in Agriculture sector to encourage them. Dr. R.S. Patil, Director of Research presented the new released crop varieties and Technology recommendations released by the University last year. The University farm periodical Shri Sugi Kharif 2014 and seven DVDs developed by the University were released on this occasion. Dr. B.R. Ulmek, Dean, F/A the Directors of Agriculture Dr. Sudam Adsul, Shri Suresh Ambulagekar, Shri. Jayant Deshmukh, Dr. Krishnrao Deshmukh, scientists, Agril. officers were present at the meeting.

Training on Use of improved implements



A two day training programme on use of improved implements for crop cultivation was jointly organized by Dr. A. S. College of Agril. Engg, MPKV, Rahuri and John Deere Company Ltd. Pune. Dr. K. D. Kokate, Director of Extension Education in his inaugural address emphasized the importance of farm mechanization in Agriculture development. He expressed the need for developing farm implements suited for small holdings. The country achieved 264 million tonnes of record food grain production last year. But for maintaining its sustainability in future mechanization has a vital role, he stated. Engineers of John Deere company participated in the training programme Dr. D. W. Thawal, Head, Dept of Agronomy, Dr. A. D. Kadlag, Prof. V. L. Kanawade, Dr. V. L. Barai were present on this occasion.

Training under RKVY – TOT Project for Farmers



A training programme on onion production Technology was organized for the beneficiary farmers under the Rashtriya Krishi Vikas Yojana – Transfer of Technology project in the University, Dr. R.S. Patil, Director of Research in his concluding address

mentioned that the University has developed good varieties and Technologies of onion, which need to be adopted by the farmers for increased production. Farmers should also be encouraged for onion seed production which is in great demand, he said briefed about the Chingli onion cultivation Technology developed by the University. Dr. A.V. Solanke, PI, RKVY-TOT project gave the introductory remarks. Scientists Dr. Subhash Bhalekar, Dr. Baban Ilhe, Dr. Anil Durgude, Mr. Vikram Kad guided the farmers. More than 150 farmers participated in the training programme.

Workshop on Water Conservation and Protected Cultivation Technology



A one day workshop on Water Conservation and Protected Cultivation Technology was organized by the Precision Farming Project of the university at Central Campus, Rahuri. In his inaugural address Vice-Chancellor Dr. T. A. More warned about the consequences arising due to depletion of natural resources. Keeping this in view, he reiterated the necessity of adoption of water conservation and protected cultivation Technology for maximizing the yields in minimum area. Dr. K. D. Kokate, Director, Extension Education emphasized the need for adoption of mulching, advanced irrigation systems and other Technologies for combating the challenges in Agriculture. Shri. Rajibkumar Roy, Member, Academic Council, Guided on polyhouse, Shade Net Cultivation. Dr. B. R. Umlekar, Dean, F/A, Dr. R. S. Patil, Director of Research, Dr. P. T. Turbatmath, Associate Dean, Dr. ASCAE, Shri. Sunil Wankhede, Registrar, Prof. N. M. Firke, Principal Investigator were present on this occasion.

Training on fruit and vegetable processing



A 30 day training programme on fruit and vegetable processing was organized by the Department of Food Science and Technology of the university. In his inaugural address Dr. K.D. Kokate, Director, Extension Education stated the role of women in handling, grading, packing of fruits and vegetables. Marketing of processed products could be made by the Self Help Groups in city malls, he said Considering the vast scope and opportunities in this field, he urged the farm women on capacity building for these Technologies so as to create brand for the products. Dr. S.S. Thorat, Head, Department of Food Science and Technology reviewed the training programmes of the Department and its objectives.

Farmers-Scientists forum of Precision Farming



A Farmers-Scientists Forum (FSF) of the Precision Farming Development Centre has been established at the Dr. Annasaheb Shinde College of Agriculture Engineering, MPKV, Rahuri under the guidance of Vice-Chancellor Dr. T. A. More. In his presidential address Dr. K. D. Kokate, Director, Extension Education underlined the importance of such a forum which would minimize the gap between a farmer and scientist. It would help demonstrate Technologies on

farmers fields and obtain their feedback, he said. Dr. R. S. Patil, Director of Research stressed the need for selection of crops in protected condition based on market demand.

Independence Day Celebrated



The 68th Independence Day was enthusiastically celebrated on 15th August. Vice-Chancellor Dr. T. A. More hoisted the national flag and addressed the staff and students. A blood donation camp and tree plantation programme was organized on this occasion. Dr. K.D. Kokate, Director, Extension Education, Dr. B.R. Ulmek, Dean (F/A), Dr. R.S. Patil, Director of Research, Shri. Sunil Wankhede, Registrar, Dr. P.A. Turbatmath, Associate Dean, Dr. A.S. CAE, Officers, Heads of Departments, staff and students were present on this occasion.

Training Programme with EEI, Anand



A three day training programme on Participatory Rural Appraisal in Agril. Extension was organized by the Department of Extension Education at MPKV, Rahuri. During the concluding programme Hon'ble Vice-Chancellor Dr. T.A. More in his address reiterated the importance of training for acquiring the knowledge

and skill. Scientist should strive for updating their knowledge so that they can effectively communicate their messages to their clients. Dr. Arun Patel, Director, EEI, Anand narrated the objectives of capacity building and importance of Participatory Rural Appraisal in Agril. Extension. Dr. S. B. Shinde, Head, Department of Extension Education gave the introductory remarks. Dr. Mahesh Patel, Shri. A. G. Sukhadiya, Scientist and more than 50 trainees were present on this occasion. This training programme was inaugurated in presence of Dr. K. D. Kokate, Director of Extension Education and Dr. B. R. Ulmek, Dean, Faculty of Agriculture.

Training Programme on Goat Rearing organized



A training programme on Improved Goat Rearing was organized in the university in collaboration with ATMA, Ahmednagar. Dr. K. D. Kokate, Director of Extension Education in his inaugural address said that goat is a poorman's cow and it is an important livelihood asset for a small farmer. Hence, the scientific management of goat needs attention for its commercialization, he said. Dr. Y. G. Fulpagare, Head, Department of Animal Science and Dairy Science guided the trainees on this occasion. Sr. Scientist; Sangamneri Goat Research Scheme guided the farmers. More than 50 farmers attended the training programme.

Training on Improved Polyhouse Technology

A training programme on Improved Polyhouse Technology was organized at the university in collaboration with ATMA, Ahmednagar. Dr. K. D. Kokate, Director, Extension Education inaugurated the programme. In his inaugural address he appealed to the farmers to go for group marketing to realize higher gains. This along with adoption of advanced Technology, production management and economic

management are the key factors for success in protected cultivation, he said. Dr. S. D. Gorantiwar, Head, SWCE highlighted the importance of protected cultivation in view of climate changes. Dr. A.V. Solanke, Manager, ATIC and Dr. Narendra Firke, PI, Precision Farming Development Centre and more than 50 trainees were present on this occasion.



Rabi and Summer Zareac Interface



The Zonal Agricultural Research and Extension Advisory Committee (ZAREAC) meeting for rabi and summer seasons was organized at the Zonal Agricultural Research Station, Solapur by Mahatma Phule Krishi Vidyapeeth, Rahuri in coordination with the State Department of Agriculture. Vice-Chancellor Dr. T. A. More in his Presidential address stated that the university has released 215 crop varieties, 1250 improved Technologies and recommendations and several improved tools and implements since its establishment. Farmers need to avail the benefit of these improved varieties and Technologies. For this the role of State Department of Agriculture is vital for transfer of Technology, he said Shri. S. N. Ambulgekar, Director, Soil and Water Conservation, M. S. in his speech called for adoption of soil and water conservation Technologies by the farmers in view of insufficient

rainfall. Dr. K. D. Kokate, Director, Extension Education gave a presentation on Convergence for Agricultural development. A model village need to be established in each district through co-ordination of university, ATMA, State Department of Agriculture, KVK and farmers participation, he said Dr. R.S. Patil, Director of Research in his presentation gave information of new released crop varieties, Technology recommendations and improved implements. The rabi issue of Shri Sugi periodical was released on this occasion. Shri. Prakash Patil, Hon'ble Member, Executive Council, Shri.A.K. Haral, Director, ATMA, Shri. Prabhakar Chandane, President, All India Pomegranate Association, Shri. Navnath Kaspate, President, Maharashtra Custard Apple Association, Shri. Uday Nanajkar, Ex-Member, EEC, Dr. P.A.Turbatmath, Associate Dean, Dr. A.S. CAE, all the Divisional Directors of Agriculture, Heads of Departments, Associate Directors of Research, Programme Co-ordinators of KVKs, Scientists participated in the discussions.

SAC Meetings of KVKs organized



The Scientific Advisory Committee (SAC) meetings of KVK, Bargaon and KVK, Mamurabad (Jalgaon) were organized. Dr. K. D. Kokate, Director of Extension Education presided over both the meetings. On this occasion Dr. Kokate felicitated the award winning farmers. Mr. Mohan Shirke, Programme Co-ordinator, KVK, Bargaon.

In the SAC meeting of KVK, Mamurabad Dr. Kokate expressed the utility of farmer's field school and All India Radio for effective dissemination of Technologies to the farmers. Dr. Hemant Baheti, Programme Co-ordinator presented the activities of last year and action plan of next year. Dr. Chari Appaji,



Zonal Project Directorate, Zone-V, Hyderabad, Krishi Bhushan Shri. Vishwasrao Patil, Dr. Sudam Patil, Chief Scientist, Oilseed Research Station were present on this occasion.

Training Programme on HORTSAP

A Training Programme for Agril. Officers, Agril. Supervisors, Pest Surveyors, Master Trainers and Data Operators was organized by the university in co-ordination with State Department of Agriculture under the RKVY Project on Horticulture (Pomegranate) pests and disease survey, advisory and management. In his inaugural address Dr. K. D. Kokate, Director of Extension Education called for effective advisory through HORTSAP. The pomegranate farmers are encountering various pest and disease problems. He hoped that this initiative will certainly address these issues. Dr. R. S. Patil, Director of Research in his address put forth the challenges in pomegranate production. HORTSAP for pomegranate crop will help to reduce these challenges and benefit the farmers, he said, Shri. Vijay Kumar Ingle, Zonal Agriculture Director also presented his views. Dr. P.A. Turbatmath, Associate Dean, Dr. ASCAE, Dr. S.G. Borkar, Head, Department of Plant Pathology, Shri. Vijay Raut, Dy. Director, Horticulture were present on this occasion.

Farmers rally under RAWE Programme

A farmers rally was organized at village Male in Kolhapur district by students of Rural Agriculture Work Experience (RAWE) programme in co-ordination with the Regional Extension Centre, College of Agriculture, Kolhapur. Dr. K. D. Kokate, Director of Extension Education inaugurated the programme. In his address Dr. Kokate emphasized the need for convergence of various Departments for effective transfer of Technologies. Linkages between SAUs and other departments need to be strengthened, he opined. Dr. Gajanan Khot, Associate Dean, College of Agriculture, Kolhapur, Dr. Dinkar Patil, Dr. Ashok Pisal, Dr. Vijay Tarde, Prof. S. J. Patil, Prof. Uttam Kadam, Prof. Vilas Karde, farmers and students attended the programme.

Frontline Demonstrations organized

The Krishi Vigyan Kendra, Borgaon, Dist. Satara had organized demonstrations on Weed Control of Paddy through a implement called Conoweeder. Prof. Mohan Shirke, Programme Co-ordinator while guiding the paddy growers expressed the need for



farm mechanization in view of labour shortage. The Conoweeder implement will certainly save the farmers cost and drudgery, he said Engg. Mahesh Pacharne conducted this demonstrations.

Farmers Trained on protected cultivation

A Training Programme on protected cultivation for members of Farmers-Scientists Forum (FSF) was organized by the Precision Farming Development Centre of Dr. Annasaheb Shinde College of Agricultural Engineering in the university. Shri. Vilas Shinde, Director, Sahyadri Farmers Producer Company, Nashik gave a presentation on scope and opportunities vegetable cultivation under protected conditions. He shared his experience on procurement and marketing of vegetables. Dr. K.D. Kokate, Director of Extension Education called for group approach along with production based on consumers demand for achieving success in protected cultivation of vegetables. Dr. R.S. Patil, Director of Research gave important suggestions for profitable cultivation of vegetables under protected conditions. Dr. P.A. Turbatmath, Associate Dean, Dr. ASCAE gave the introductory remarks. Prof. Narendra Firake put forth the objective of training.

Swachha Bharat Abhiyan Launched



The University launched the Swachh Bharat Abhiyan at the university Vice-Chancellor Dr. T.A. More gave oath on cleanliness to the staff and students. The portraits of Father of the Nation Mahatma Gandhi and Former Prime Minister Lal Bahadur Shastri were garlanded on this occasion. Dr. More in his address appealed to start cleanliness from respective offices. Cleanliness and good health are interrelated, he said. This will certainly increase the effectiveness in work. Thus, all need to take efforts for a clean India and strong India, he said. Registrar Shri. Sunil Wankhede, Security Officer Shri. J. B. Shinde, Dr. K. D. Kokate, Director of Extension Education, Dr. S. G. Borkar, Associate Dean, PGI, Dr. P. A. Turbatmath, Associate Dean, Dr. A. S. CAE, Shri Milind Dhoke, University Engineer were present on this occasion.

Training Programme organized for KCC Officers



A two day training programme was organized by MPKV, Rahuri in co-ordination with MANAGE, Hyderabad at Extension Education Section, College of Agriculture, Pune for the Officers of Kisan Call Centre. Dr. K. D. Kokate, Director of Extension Education inaugurated the programme. In his inaugural address Dr. Kokate emphasized the need for adoption of advanced Agricultural Technologies for increasing crop production. The Kisan Call Centre is an effective media for transfer of farm Technology. Hence, the officers need to be updated for solving farmers problems, he said. Dr. K. V. Deshmukh, Director, Extension and Training, M. S. was present on this occasion. About 60 trainees participated in this programme. The trainees were guided on crop production Technology, Post Harvest Technology, integrated Pest Management, Water Management, Dairy Business etc.

National Integration Day Celebrated



The National Integration Day was celebrated in MPKV, Rahuri on the occasion of anniversary of Sardar Vallabhai Patel, Registrar Shri. Sunil Wankhede also offered flowers to the portrait of former Prime Minister Indira Gandhi whose anniversary was also celebrated. Shri. Wankhede gave oath of National Integration to the staff and students. A National Integration run was also organized on this occasion. The Heads of Departments, Dr. D. B. Yadav, Dr. S.A. Ranpise, Dr. R. M. Naik, Dr. S. R. Thorat, Dr. Y. G. Fulpagare, Dr. S. B. Jadhav, Comptroller Shri. Vishwas Jadhav Prof. Sharad Patil, Students Welfare Officer were present on this occasion.

State Level Bio-Technology Day Celebrated



The State Level Bio-Technology Day was celebrated in the university. The birth anniversary of former Prime Minister Pandit Nehru was also celebrated. A Training Programme for awareness of GM crops was organized on this occasion. It was inaugurated by Shri. Anil Kawade, Chairman, District Level Committee and Collector, Ahmednagar. Shri. Kawade in his address hoped for efforts for creating awareness of GM crops among the farmers and general public. Dr. R.S.Patil, Director of Research in his introductory remarks highlighted the advantages of GM crops. This

Technology will help the researchers to develop the crop varieties which will be pest resistant, tolerant to drought and also increasing the shelf life of fruits. The scientists Dr. Ashok Jadhav, Dr. Anil Kale, Dr. Pawan Kulwal guided the delegates. The committee visited the State Level Bio-Technology Laboratory and GM maize plots in the university.

Mahatma Phule Anniversary Celebrated



A One Act Plays of Shri. Kumar Aher, Chairman, Prabodhan One Act Play Council, Pune was organized in the university on the occasion of Mahatma Phule Anniversary. Shri. Aher through his play gave various facets of the teaching of the great social reformer. Mahatma Phule who opposed the evil practices in the society. He laid the foundation for women's education. Besides this he had a great vision for Agriculture, he said. Dr. B. R. Ulmek, Dean, Faculty of Agriculture in his presidential address said that everyone should practice the basics of humanity in life, which will be a true respect to Mahatma Phule. Dr. R. S. Patil, Director of Research gave the introductory remarks. Shri. Sunil Wankhede, Registrar, Head of Departments, staff and students were present on this occasion.

Agri.-BIZZ-2014 organized in Pune



Agri.-BIZZ-2014, a National Seminar on Global Opportunities in Agricultural Entrepreneurship/Business (GOAEB) was organized by the State Agriculture Universities of Maharashtra in co-ordination with the Journal of Agriculture Research and Technology, Pune and Maharashtra Agro Industries Development Corporation. Dr. C. D. Mayee, Ex-Chairman, ASRB, New Delhi was the Chief Guest, While, Dr. Shivajirao Deshmukh, Director General, VSI, Pune was the special Guest on this occasion. Vice-Chancellor Dr. T. A. More presided over the function. Dr. K. E. Lawande, Vice-Chancellor, DBSKKV, Dapoli, Dr. R. G. Dani, Vice-Chancellor, Dr. PDKV, Akola, Dr. B. Venkataswrlu, Vice-Chancellor, VNMKV, Parbhani, Dr. B. R. Ulmek, Convener and Dean, Faculty of Agriculture and Dr. S. D. Gorantiwar, Chief Editor, JART, Pune and all the Director of SAUs were present on the dais. In his address Dr. C. D. Mayee applauded the contribution of SAUs in increasing the food grain production of the country. He emphasized on imparting entrepreneurial abilities among the farmers especially in Agril. Processing which will raise their income level. The Agricultural and allied graduates need to increase their communication skills and come forward for establishing Agriculture related businesses, he opined. Vice-Chancellor Dr. T. A. More in his presidential address hoped for more confidence building in Agril. Entrepreneurs. Skilled manpower is required for the industry, he said. The SAUs are taking efforts for increasing food grain production which will lead to higher economic returns to the farmers. Dr. Deshmukh and all Vice-Chancellor also put forth their views. Dr. B. R. Ulmek, Convener. Former Vice-Chancellors Dr. S. S. Magar, Dr. U. M. Mayande, Dr. V. M. Pawar, Dr. R. O. Patil, Chairman, Nirmal Seed Company, Dr. Shankarrao Raut, Technical Advisor, Maharashtra State Medicinal Plant Board, Pune, Scientists, Agril. Graduate/entrepreneurs and students participated in the National Seminar.

National Workshop on Pomegranate

A National Workshop on Pomegranate was organized by the National Research Centre for Pomegranate, Solapur and Society for Advancement of Research on Pomegranate. Vice-Chancellor Dr. T. A. More, presided over the function. In his presidential

address Dr. More emphasized the need for utilizing bio-Technology research in production of new varieties of pomegranate which will be resistant to oily spot and other diseases. The SAUs are positively addressing this problem, he said. Dr. R.K. Paul, Director, NRC for Pomegranate, Solapur gave the introductory remarks. Dr. V. T. Jadhav, Ex-Director, NRS, Dr. D. P. Waskar, Director of Research, VNMKV, Parbhani and Shri. Prabhakar Chandne, Chairman, Pomegranate Growers Association also addressed the participants.

Training Programme organized



A Training Programme on "Technology for Increasing Conception Rate in Crossbred Cattle" was organised by the Cattle Research and Development Project of MPKV, Rahuri. In his presidential address, Dr. K. D. Kokate, Director of Extension Education said that the Dairy occupation came into limelight after the White Revolution. Now, this has become the major occupation of most of the farmers. India is top ranked in milk production but the challenge before us is to increase and maintain the milk production of milk animals. Dr. Y. G. Fulpagare, Head, Department of Animal Science and Dairy Science. Dr. Madhav Yeole, Ex-Assistant Commissioner (Animal Husbandry) and Dr. Chandrakiran Sant, Dairy Advisor, Mumbai guided the participants. The university scientists Dr. Vishnu Narwade, Dr. Mahendra Yadav and Dr. Dilip Deokar gave presentations. Dr. Rahul Desale Dr. Uddhav Bhoite along with more than 90 Animal Husbandry Supervisors participated in this training programme.

Visit to Hi-Tech. Farming

Dr. K. D. Kokate, Director of Extension Education visited the Hi-Tech. Vegetable experimental farming in Chorwad village of Parola taluka in Jalgaon district.



The scheme is implemented by Krishi Vigyan Kendra, Mamurabad. Addressing the farmers on this occasion Dr. Kokate praised the efforts of farmers for adopting this Technology. He said that farmers need to go for diversified farming for minimizing the risks in Agriculture. For this, the group approach and regular interaction between farmers and scientists needs to be increased, he said. Dr. Sudam Patil, Oilseed Specialist, ORS, Jalgaon, Dr. Sanjeev Patil, Cotton Breeder, Dr. Narendra Deshmukh, SMS, KVK, Mamurabad and farmers were present on this occasion.

Tribal Farmers trained on Seed Production



An off camps training programme on seed production was organized by the Seed Production Unit of MPKV, Rahuri for the tribal farmers in Varanghushi village of Akole taluka of Ahemdnagar district. In his address Dr. M. B. Dhonde, Chief Scientist, Seed stressed for expansion of Seed Production programme in order to produce quality seed. The tribal farmers will certainly benefit from this activity, he hoped. The university scientists Dr. S. B. Salunkhe, Mr. Suresh Zanjre, Dr. Sanjay Gawade and Dr. Ganesh Bansode guided the farmers. Improved seed of gram was distributed to 366 tribal farmers on this occasion.



Retrospection-2014 organized at MPKV, Rahuri

Retrospection-2014, a programme to review the university's education, research and extension activities was organized at the Mahatma Phule Krishi Vidyapeeth, Rahuri. Shri. Popatrao Pawar, Executive Chairman, Aadarsh Gaon Yojana and Ex-Sarpanch, Hiwre Bazar inaugurated the photographic exhibition organized on this occasion. Vice-Chancellor Dr. T. A. More presided over the function. In his address Shri. Pawar advised to give a serious thought on judicious use of water. Effective soil and water conservation Tech.niques need to be implemented for enabling the recharge of ground water. Pollution of ground water is a matter of concern, he said. Shri. Pawar narrated his experiences on rural and Agricultural development of the model village. Besides he put forth the social problems of the society and appealed to the Agriculture graduates to come forward for fostering the socio-economic development. In his presidential address Vice-Chancellor Dr. T. A. More expressed his concern on various natural hazards like biotic and abiotic stress, climate change, hailstorms etc. The university has prioritized the research areas for combating these concerns, and an Integrated Farming System model developed by the university to bring sustainable income to the farmers. He said that the university has started new Government Agriculture Colleges at Nandurbar and Karad. Efforts are on to give maximum facilities for the students, he said. Dr. K. D. Kokate, Director of Extension Education in his introductory remarks and presented the last year's extension education activities of the university. Dr. B. R. Ulmek, Dean, Faculty of Agriculture and Dr. R. S. Patil, Director of Research reviewed the educational and research activities, respectively. Shri. Sunil

Wankhede, Registrar, Shri. Milind Dhoke, University Engineer and Shri. Vishwas Jadhav, Comptroller presented the administration, development works and finance review of the preceding year. The university publication Krishi Darshani 2015 was released on this occasion. The Associate Deans Dr. P. A. Turbathmath (DrASCollege of Agril. Engg., MPKV, Rahuri), Dr. Dr. Gajanan Khot (College of Agriculture, Kolhapur), Dr. Pramod Rasal (College of Agriculture, Dhule) and Dr. Dashrath Thawal (College of Agriculture, Pune), Heads of Departments, scientists, staff and students were present for the programme.

Review Meeting of KVK's of Western Maharashtra

A Review meeting of Krishi Vigyan Kendras (KVKs) of western Maharashtra was organized at the Mahatma Phule Krishi Vidyapeeth, Rahuri in co-ordination with the Zonal Project Directorate, Zone-V, Hyderabad. Vice-Chancellor Dr. T. A. More in his inaugural address said that the role and contribution of women in Agriculture is worth mentioning and hence, KVKs need to empower them with knowledge and skills. The entrepreneurial capabilities of rural youth need to be enhanced for the development of villages. The awareness on nano Technology, bio-Technology and GM crops also need to be expanded for their effective utilization in Agriculture, he said. Dr. K. D. Kokate, Director of Extension Education in his introductory remarks called for accessibility of sustainable Technologies for the livelihood security of farmers. He said that KVK is an institutional innovation mechanism and should focus on farmer centric growth through appropriate Technologies. Benchmark survey is needed for assessing the outcome and output of KVKs, he said. The Programme Co-ordinators of sixteen KVKs in the university jurisdiction presented their activities. Appropriate suggestions were made on the OFTs, FLDs, capacity building, Farmers Portal, website, Technology Cafeteria and extension activities. The activities of the university's Regional Extension Centres (RECs), District Extension Centres (DECs), Department of Extension Education, Communication Centre and College Development Blocks were also reviewed in the meeting.

Workshop on Awareness of GM crop organized

A one day workshop on Awareness of GM Crop for



the Agril. Scientists of the University was organized at YASHADA, Pune by MPKV, Rahuri in co-ordination with Bio-Tech. Consortium Indian Ltd. New Delhi. Dr. Anil Kakodkar, Chairman Atomic Energy Commission, New Delhi inaugurated the workshop. Vice-Chancellor Dr. T. A. More presided over the function. In his inaugural address Dr. Kakodkar highlighted the importance of GM Technology for increasing the food grain production in view of increased population. But there is low awareness of the Technology among the farmer and policy makers. In his presidential address Dr. T. A. More said that many people are resisting the Technology only because of their unawareness of the Technology. But this Technology is accepted by most of the Nations and it is required for sustainable crop production. Dr. R. B. Deshmukh, Ex-Vice-Chancellor, MPKV Rahuri in his address said that the GM varieties is the next step after hybrid varieties. The GM Technology can overcome the challenges like climate change, biotic and abiotic stress, drought tolerance etc. he said, Dr. R. S. Patil, Director of Research in his introductory remarks briefed about the procedure for approving the GM crops. Dr. Vibha Ahuja also addressed the participants.

Large scale demonstrations on rabi sorghum seed production organized under HOPE Project

Large scale demonstration on rabi sorghum seed production on more than 400 hectares was organized by the Sorghum Improvement Project, MPKV, Rahuri in coordination with ICRISAT, Hyderabad, Mahabees and State Department of Agriculture. Shivarpheri and farmers rally was organized in Kambi village of Shevgaon Taluka of Ahmednagar District. Vice-Chancellor of Dr. T.A. More, presided over the function. In his addressed Dr. More hoped that the seed



production of rabi sorghum undertaken to this project would benefit for more than 16 lack hectare area. The University has adopted the Kambi village for its all round development in Agriculture. Shri. Dilip Gandhi, Hon. Member of Parliament in his address said that the country will prosper only after the development of rural areas. Hence, all should contribute for the development of villages. Shri. Anil Kawade, Collector, Ahmednagar in his address hoped for development of secondary occupation for sustainable income for the farmers. Dr. R.S. Patil, Director of Research gave the introductory remarks. Shri. Vijay Ingale, Joint Director, Agriculture, Pune Division also expressed his views. All Directors, Officers, Faculty, Scientist and farmers were present on this occasion. Similar programme was organized at Narayanwadi Tal. Newasa, Dist. Ahmednagar.

Farmers trained under RKVY Project

A training programme on Chingli Onion Production Technology for the farmers was organized at MPKV, Rahuri under the Rastriya Krishi Vikas Yojana Transfer of Technology Project. Vice-Chancellor Dr. T.A. More inaugurated the programme. While addressing the farmers Dr. More hoped that onion varieties and Technology released by the university would certainly benefit the farmers. The university has developed the chingli onion production Technology especially for increasing the *kharif* season yield, he said Dr. R.S. Patil, Director of Research in his introductory remarks said that this Technology will give higher seed germination easier weed management, pest and disease resistant crop and early yield which will benefit the onion growers. He interacted with the farmers and gave solution to their problems. Onion Breeder Dr. V. N. Joshi proposed thanks; Heads of Departments Dr. S. R. Ranpise, Dr. R.W. Bharud, Dr. S. B. Shinde, Scientists and farmers were present on this occasion.



Republic Day Celebrated

The 65th Republic Day of the country was celebrated in the university. Vice-Chancellor Dr. T. A. More hoisted the National Flag. In his address Dr. More congratulated the staff and students for their efforts in Swachh Bharat Abhiyan. He declared that the ICAR has sanctioned the Red Gram Improvement Project to the university along with posts. Also an Agril. Research Centre has been sanctioned for Nandurbar district. Various development works were inaugurated by Hon'ble Vice-Chancellor. Directors Dr. K. D. Kokate, Dr. B. R. Ulmek, Dr. R. S. Patil, Dr. P. A. Turbatmath, Associate Dean, Dr. ASCAE, Shri. Sunil Wankhede, Registrar, Shri. Vishwas Jadhav, Comptroller, Shri. Uttam Kadam, Security Officer, Dr. Rajendra Kenghe, Captain, NCC, staff and students were present on this occasion.

Workshop on Impact Analysis Organized



A workshop on Impact Analysis of Agricultural Technologies in Research, Education and Extension was organized in the University. The workshop was inaugurated by Dr. K. D. Kokate, Director of Extension Education. Dr. D. B. Yadav, Head, Department of Agriculture Economics gave a preamble about the objectives of the workshop. Dr. R. S. Patil, Director of Research in his introductory remarks said that MPKV is pioneer in conducting such type of workshop. He said that University has released significant varieties and Technologies, but there is a need to document and quantify it. Dr. K. D. Kokate in his inaugural address said that the activities should contribute to the end results for the development of society. He hoped that this workshop will certainly sensitize the scientists on impact studies. He emphasized to develop skills and expertise in impact assessment, monitoring and evaluation. Dr. Nagaraj, ICRISAT, Hyderabad, Dr. M. G.

Chandrakant, Head, Department of Agriculture Economics, UAS, Bangalore, Dr. Thorat, DBSKKV, Dapoli and Dr. More, VNMKV, Parbhani guided the participants in this workshop.

30th Convocation of MPKV, Rahuri organized



The thirtieth Convocation of Mahatma Phule Krishi Vidyapeeth, Rahuri was organized at the central campus, Rahuri on February 28, 2015. Hon'ble Governor of Maharashtra Mr. Vidyasagar Rao presided over the function. Hon'ble Minister of Agriculture and Revenue, Government of Maharashtra and Pro-Chancellor of MPKV Shri. Eknathrao Khadase, the Chief Guest Dr. Raghunath Mashelkar, Renowned Scientist and President of Global Research Alliance, Dr. T. A. More, Vice-Chancellor, Dr. B. R. Ulmek, Dean, Faculty of Agriculture, Dr. P. A. Turbatmath, Associate Dean, Dr. Annasaheb Shinde College of Agriculture Engineering, MPKV, Rahuri, Shri. Sunil Wankhede, Registrar were present on the dais. In his convocation address Dr. Mashelkar said that India needs to rapidly move towards innovation led Agricultural growth. This has to be achieved with speed, scale and sustainability. In the new National Agricultural Innovation System, we must move to 'total innovation', involving Tech.nological and institutional innovations throughout the production, marketing, policy research and enterprise domains. From transfer of Technology we must move to learning by using 'collective intelligence'. The challenge for the Indian Agriculture Innovation System will be also to get 'more from less for more'. Indian demand for food grains would increase from 192 million tones in 2000 to 342 million tones in 2030. This is possible by using the power of new Technology, such as information and communication Technology, nanoTechnology, space Technology, modern bioTechnology, etc. He further

said that we must build a robust Indian Agricultural Innovation System based on our great strengths. We must build our own Indian Agriculture Innovation Index. With this we will achieve the dream of moving rapidly from 'green revolution' to the much needed 'evergreen revolution' and 'nutritional revolution'. We will then achieve our dream of 'food for all'. Hon'ble Governor Mr. Vidyasagar Rao conferred the degrees and medals to the students. On this occasion who received degrees comprised 92 Ph. D. degrees, 668 PG degrees and 4365 UG degrees. Vice-Chancellor Dr. T. A. More in his welcome address reviewed the education, research and extension education progress of the university. He said that 18 foreign students have taken admissions for Ph.D. and PG degrees through the Indo-Africa and Indo-Afghanistan educational programme. The university has so far released 237 crop varieties, 120 Agricultural implements, tools and 1250 Technology recommendations for the farmers. The co-ordination of farmers and scientists is effectively done through the Farmers-Scientists Forum. More than one lakh farmers visit the university every year, he said. Dr. K. D. Kokate, Director of Extension Education, Dr. R. S. Patil, Director of Research, Members of the Executive Council, Academic Council and Faculty, students and parents attended the function.

MOU signed



A memorandum of understanding (MOU) was signed between MPKV, Rahuri and Sahyadri Farmer Producer Company (SFDC), Nasik in presence of Vice-Chancellor Dr. T.A. More and Shri. Vilas Shinde, M.D, SFPC. On this occasion Vice-Chancellor Dr. T.A. More hoped that this Public – Private-Partnership will accelerate the research, education and extension activities on fruit and vegetable post harvest Technology.

He further said that this MOU will be helpful to the students, scientist and farmers. Dr. K.D. Kokate, DEE, Dr. R.S. Patil, Director of Research, Dr. B.R. Ulmek, Dean, Faculty of Agriculture, Dr. P.A. Turbatmath, AD, Dr. ASCAE, Registrar Shri. Sunil Wankhede and Head of departments were present on this occasion.

State Level Workshop Organized



A state level workshop on Protective Cultivation for Vegetable Crops was organized at MPKV, Rahuri by Precision Farming Development Center, Irrigation and Drainage Engineering Department, Dr. ASCAE in co-ordination with NCPAH, Ministry of Agriculture, Govt. of India, New Delhi and State Horticulture Mission, Pune. Vice-Chancellor Dr. T.A. More in his presidential address hoped for creating awareness of protective cultivation Technology among the farmers. There is an urgent need for producing more from less for more in the available cultivable area. Thus this Technology will be immensely helpful to the farmer. Shri. Krish Iyengar, Executive Director, NCPAH, Ministry of Agriculture, Govt. of India, New Delhi, in his address said that farmers need to go for protected crop cultivation and mechanization for sustainable yield. Dr. R.S. Patil, Director of Research also addressed the gathering. Dr. K.L. Reddy, Director Walamtari, Shri. Sriram Gadhave, President, Indian Vegetable Grower Association, Narayangaon, Registrar Shri. Sunil Wankhede, farmers, scientists and students were present on this occasion. Various publications were released on this occasion.

Farmers Rally under RKVY TOT Project

A farmers rally and potato harvesting programme was organized by MPKV, Rahuri in co-ordination with State Department of Agriculture at Hanumanthgaon





village in Ahmednagar district under the Rastriya Krishi Vikay Yojna (RKVY) transfer of Technology (TOT) Project. Addressing the farmers on this occasion Dr. K.D. Kokate, Director of Extension Education applauded the efforts of youth in adoption of university's Technology. He hoped that the Hanumanthgaon model of sugarcane-potato intercropping will motivate other farmers of the region. Dr. K.K. Pande, Chief Seed Officer, CPRI, Simla promised for providing good quality potato seed to the farmers. He praised the farmers efforts for undertaking this intercropping Technology. Dr. J. T. Nankar, potato scientist said that this sugarcane potato intercropping Technology should be encouraged in the sugarcane belt of Maharashtra.

Action Plan Workshop of KVKs organized



The seventh Action Plan Workshop of Krishi Vigyan Kendras (KVKs) of western Maharashtra was organized at the Mahatma Phule Krishi Vidyapeeth, Rahuri in co-ordination with the Zonal Project Directorate, Zone-V, Hyderabad. Vice-Chancellor Dr. T. A. More in his inaugural address stressed the need for science led Agriculture. He said that the KVK approach is one of the best for transfer of Technology at the grassroot level as they identify the problems

from the existing agro-eco and cropping system of the district. He hoped that the Agricultural Technologies need to reach the end users, especially the tribal farmers. Looking to the large majority of small farmers which are 90 per cent, the Integrated Farming System model assures their livelihood security, he said. Dr. N. Sudhakar, Zonal Project Director, Zone-V, Hyderabad in his address put forth the new initiatives undertaken by KVKs. He emphasized the need for increasing vocational training programmes for rural youth by the KVKs. Dr. K. D. Kokate, Director of Extension Education in his introductory remarks gave a lucid presentation on Technology Integration for Diverse Farm Environments-Role of KVK. He said that appropriate Technology interventions by KVKs are very much needed for solving the problems in Agriculture. Dr. Kokate further said that 2015 is being celebrated as the International Year of Soils followed by 2016 as the International Year of Pulses and hence, KVKs need to redirect their action plan accordingly. Dr. B. R. Ulmek, Dean, Faculty of Agriculture, Dr. Rajinder Reddy, Sr. Scientist, ZPD, Hyderabad, Heads of Departments, scientists, Programme Co-ordinators and SMSs of KVKs were present on this occasion. The Programme Co-ordinators of sixteen KVKs in the university jurisdiction presented their action plans. Appropriate suggestions were made by the university experts on the OFTs, FLDs, capacity building programmes, Technology Cafeteria and extension activities which were then finalized through discussion in this two day workshop.

State Level Workshop Organized



A one day state level workshop on ICT based Application in Irrigation Scheduling was organized at MPKV, Rahuri. The workshop was organized by

Irrigation Water Requirement Advisory Service Project under the department of Irrigation and Drainage Engineering, Dr. ASCAE, Rahuri.

Vice-Chancellor Dr. T. A. More in his presidential address underlined the importance of advanced irrigation system for higher crop production. This needs to be linked with information Technology for effective utilization of irrigation water. Dr. S. A. Kulkarni, Secretary Maharashtra Water Resource Regulatory Authority, Govt. of Maharashtra, in his chief guest address put forth the importance of available irrigation in view of globalization, industrialization and expansion of urban areas in developing nations. Hence, there is a need for more crop per drop of water by the farmer. Dr. K. D. Kokate, Director Extension Education opined that the water resources are shrinking and pollution is increasing day by day. Thus saving of available water is a major challenge for us. Dr. R.S. Patil, DOR, Dr. P.A. Turbatmath AD, Dr. ASCAE, Dr. D. D. Pawar, Head Dept. IWM, Dr. S. D. Gorantiwar, Head Dept. IDE, farmers, KVK SMS, officers of Agriculture department, scientists, were present.

Agriculture Mechanization Day Celebrated



Agriculture Mechanization Day was celebrated at Karad jointly organized by MPKV, Rahuri & Commissionerate of Agriculture, Pune. Dr. K.D. Kokate, Director Extension Education while inaugurating the programme stressed the need for mechanization in Agricultural activities from sowing to harvesting.

Shri. N.T. Shisode, Associate Director of Agriculture, Kolhapur division presided over the function. Shri.

Thushar Pawar executive council member of university, Dr. P.A. Turbatmath, Dr. ASCAE, Dr. D.A. Dhawal, AD, AC, Pune, Dr. G. G. Khot, AD, AC, Kolhapur and farmers were present on this occasion. An exhibition of improved Agriculture implements and demonstration was organized on this occasion.

Annual Meet of Pigeon pea Organized

A Annual Meet of Pigeon pea was organized by MPKV, Rahuri in coordination with ICAR, New Delhi. Hon'ble Vice - Chancellor Dr. T.A. More inaugurated the meet. In his inaugural address Dr. More emphasized the importance of pulses in food security of the country. From that point of view pigeon pea is a vital crop, he said. The production and productivity of pigeon pea need to be enhanced through use of transgenic and Bio-Technology. He said that the IVM and IPM need to be adopted by the farmers along with use of improved varieties. Dr. R.S Patil, Director of Research gave the introductory remarks. Dr. B.D. Singh, Director IIPR, Kanpur, Dr. I.P. Singh, Project Co-ordinator, AICRP on Pulses, Dr. B.R. Ulmek, Dean, F/A, Scientists from all over the country participated in the workshop.

Agricultural Research Council Meeting

The XVIIIth meeting of Agricultural Research Council of MPKV, Rahuri was organized under the chairmanship of Hon'ble Vice-Chancellor Dr. T. A. More, in his address Dr. More stressed the planning for research based on the farmers need. There is a need to quantify the crop production and income accrued by the by the farmers through University released varieties and Technologies. Dr. P. S. Minhas, Director, National Institute of Abiotic Stress Management, Baramati expressed the need for establishing a Water Technology Centre for helping the farmers on irrigation management Dr. R. S. Patil, Director of Research, reviewed the past research and presented the future plan of research. Dr. B. R. Ulmek, Dean, F/A, Dr. Prakash Shingare, Director of Research, MCAER, Pune, Dr. P. A. Turbatmath, AD, Dr. ASCAE, Shri. Sunil Wankhede, Registrar, Dr. S. V. Pathak, representative of Commissioner of Animal Husbandry, Dr. S. M. Pawar, Sugarcane specialist, ADRs, HODs were present at the meeting.

6. Awards / Distinctions / Recognitions

Vice – Chancellor Dr. T.A.More Felicited with International Award



Vice-chancellor Dr. T.A. More has been felicitated with the International Award in the recently organized world Chancellors and Vice-Chancellors Congress-2014 in Mumbai. The award has been given for the significant achievements of the University in the field of Agril. education. Vice-Chancellor Dr.

T.A. More was awarded the memento and certificate by the Chairman of the congress at a function organized at the Taj hotel in Mumbai. MPKV was the only University from the State to receive this prestigious award. The Chancellors and Vice-chancellors of various Universities from all over the world were present on this occasion.

Dr. D. B. Yadav felicitated with Agril. Economist Award



Dr. D. B. Yadav, Head, Department of Agril. Economics was felicitated with the Saint Tukdoji Maharaj Agril. Economist Award by Shri. Gopinath Mundhe. The award is instituted by phoenix Foundation, Latur for those who significantly contribute to Agril. Economics. Dr. Yadav has significantly contributed to Agril. Economics. He has already been felicitated with Bharat Excellence Award, Shivneri Puraskar, Bharat Jyoti Award, Baliraja Shetimitra Puraskar, Purva

Krishidoot Excellent Writer awards. He is working as member of National Agril. Insurance Scheme since 2012.



Dr. Turbatmath Awarded Agrocare Idol-2014 Award

Dr. P.A. Turbatmath, AD, Dr. AS, CAE was felicitated with the Agrocare Idol-2014 award for his contribution to education, research and extension in Agriculture. The Award is given by Agro-care Krishi Manch, Nasik & Baglan Vikas Manch, Satana. Mrs. Deepikatai Chavan, MLA, Satana handed the award to Dr. P.A. Turbatmath, AD, Dr. ASCAE, in the presence of dignitaries.



Dr. M.C. Ahire Felicitated with ISEE Fellow

Dr. M.C. Ahire, Prof. of Agril. Extension, College of Agriculture, Dhule was awarded the ISEE Fellow in the National Seminar held at KVS, KV, Gwalior for his contributions in education, research and extension. He received the

award from Dr. A.K. Singh Vice-Chancellor, KVS, KV, Gwalior.



Dr. G.H. Gaikwad Awarded with Best Paper Presentation Award

Dr. G. H. Gaikwad, Asstt. Prof. Agril. Extension, MPKV, Rahuri was awarded the Best Research Paper Presentation award at the National Seminar held at KVS, KV, Gwalior. He received the

award from of Dr. A. K. Singh Vice-Chancellor KVS, KV, Gwalior.



Dr. A.M. Chaivai Felicitated with Agrocare Idol-2014 Award

Dr. A. M. Chaivai, Asstt. Prof. Agril. Extension, MPKV, Rahuri was awarded the Agrocare Idol-2014 award for his contributions in research and extension education for Technology transfer in

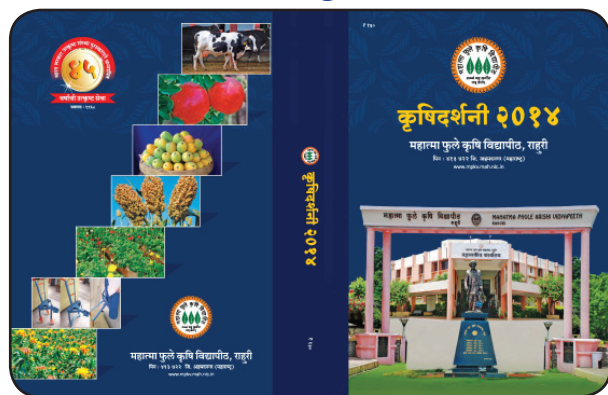
Agriculture. The award is been given by Agro-care Krishi Manch, Nasik & Baglan Vikas Manch, Satana. Mrs. Deepikatai Chavan MLA, Satana handed the award to Dr. A.M. Chaivai in the presence of dignitaries.

AICRP on Vegetable Awarded with Excellent Research Centre on Vegetable



The All India Co-ordinated Research Project on Vegetable of MPKV, Rahuri has been awarded the Excellent Research Centre on Vegetable in the country. Vice-Chancellor Dr. T.A. More and Senior Vegetable Breeder Dr. M.N. Bhalekar received this award at the 32nd Annual Meeting held at Indira Gandhi Agricultural University, Raipur, Chhatisgarh from Dr. N.K. Krishnakumar, Deputy Director General (Horticulture), ICAR, New Delhi. Dr. Kirti Singh, Dr. Brahma Singh, Project Co-ordinator (Vegetables) were present on this occasion. This project has released 48 improved varieties and hybrids of vegetable crops. It has also released 108 recommendations related to vegetable crop production and plant protection. Besides it has also contributed in large scale seed production of vegetable crops.

Krishi Darshani-2014 Bags Award



The university annual publication Krishi Darshani-2014 has been bestowed with the In-house Communication Excellence (IC) award, instituted by the Shailaja Nair, Foundation, Mumbai. Krishi Darshani is a popular publication amongst the farming community of the state. It comprises almost all information related to Agriculture in simple language. All the information related to university released crop varieties, latest Technology recommendations, cultivation, plant protection, fertilizer requirement, irrigation practices, harvesting, seed production, dairy management, improved implements and all contact numbers of Colleges, Research Stations, Projects, Agril. Technology Schools, Officers, Scientists, State Department of Agriculture's, KVKs etc. are included in this annual Krishi Darshani.

Dr. Goraksh Sasane Felicitated with Award



Dr. Goraksh Sasane, Professor of Extension Education was felicitated with Dr. Abdul Kalam National Award 2014 instituted by the International Institute for Social and Economic Reforms, New Delhi. Dr. T. A. More Hon. Vice-Chancellor and Dr. K. D. Kokate, Director of Extension Education congratulated him on receiving this award.

Dr. Pandit Kharde Felicitated with Award



The 7th National Extension Education Congress (NEEC-2014) was organized at Umiam, Meghalaya by the Society of Extension Agra in Co-ordination with the ICAR Research Camp NEH region. On this occasion Dr. P. B. Kharde, Associate Professor (Agril. Extn.) was felicitated with the Best Extension Professional Award. He received the awards from Mr. A. L. Hek, Minister of Health, Meghalaya State. Dr. S. V. Ngachan, Director, ICAR RC-NEH region, Dr. Jitendra Chauhan, President, SEE, Agra were present on this occasion.

Prof. S. D. Patil Awarded with Best Paper Presentation Award



The 7th National Extension Education Congress (NEEC-2014) was organized at Umiam, Meghalaya by the Society of Extension Agra in Co-ordination with the ICAR Research Camp NEH region. On this occasion Mr. S. D. Patil, Assistant Professor (Agril.Extn.) received the Best Research Paper presentation award. He received the awards from Mr. A. L. Hek, Minister of Health, Meghalaya State. Dr. S. V. Ngachan, Director, ICAR RC-NEH region, Dr. Jitendra Chauhan, President, SEE, Agra were present on this occasion.

University Appreciation the NCC Cadets of DRASCAE

The National Cadet Corps (NCC) students of Dr. Annasaheb Shinde College of Agriculture Engineering, MPKV, Rahuri achieved remarkable success in the 'C'

certificate exam of the NCC. Out of 17 students who appeared for this exam eight NCC students achieved first class grade. The students were guided by Captain Dr. Rajendra Kenghe. The NCC students of this college have been posted in the Indian Army, Border Security Force etc. Vice-Chancellor and Colonel Dr. T.A. More, Dr. P.A. Turbatmath, Associate Dean, Dr. A.S. College of Agriculture Engineering congratulated the students on their success.

Agril. Meteorology Project of ZARS, Solapur awarded

The Agricultural Meteorology Project of Zonal Agricultural Research Station (ZARS), Solapur on micro climate change was awarded the Chaudhary Devilal Award of Indian Council of Agricultural Research (ICAR), New Delhi. The Project Co-ordinator Dr. V.M. Rao received this award at the auspicious hands of Dr. S. Ayyappan, Director General, ICAR, New Delhi. The project headquarter is at CRIDA, Hyderabad. This centre has twice been felicitated with the Best Centre Award by CRIDA, Hyderabad.



7. Human Resource

7.1 Executive Officer

Executive Officer			Period
1	The Chancellor	Hon'ble Shri. K. Sankaranarayanan	
		Hon'ble Shri C. Vidyasagarrao	
2	The Pro-Chancellor	Hon'ble Shri Radhakrishna Vikhe Patil	
		Hon'ble Shri Eknathrao Khadse	
3	The Vice-Chancellor	Dr. T. A. More	

7.2 Executive Council Members

Sr. No.	Category	Hon. Member	Address	Period
1	Chairman	Hon. Vice-Chancellor	Mahatma Phule Krishi Vidyapeeth, Rahuri	--
2	Member	Hon. Director of Agriculture	Commissionrate of Agril., Central Building, Pune-411001.	--
3	Member	Hon. Regional Joint Director of Animal Husbandry	Veternary Despensary, Near Ashok Stambha, Nasik.	--
4	Member	Hon. Director of Horticulture	Near Superintendant of Agril. officer of Maharashtra State office, Narvir Tanaji Road, Shivajinagar, Pune-5	--
5	Member	Hon. Chief Conservator of Forest (Regional)	Old Mumbai-Agra Highway, Tryambak Naka, Opp. To Adivasi Vikas Bhavan, Nasik-422002.	--
6	Member	Hon. Director of Research	Mahatma Phule Krishi Vidyapeeth, Rahuri	--
7	Member	Hon. Dean	Dr.A.S.C.A.E., MPKV, Rahuri.	--
8	Member (Agriculture Scientist)	Hon. Dr.S.B.Dandin	H.No.449, Nisarga, Ramtirthanagar, Belgaum-590016	22 May, 2013 to 21 May, 2016
9	Member (Progressive Farmers 05)	Hon. Shri Tanaji Ramchandra Dhasal	At.Po.Tandulwadi, Tal-Rahuri, Dist-Ahmednagar	29 Feb. 2012 to 28 Feb. 2015
10		Hon. Shri.Bhausaheb Wakchaure	"Sai Arpan Banglow", Near Sai Shraddha Housing Society, Opp. To Saibaba Bhakt Nivas, At.Po. Shirdi, Tal-Rahata, Dist-Ahmednagar	04 Sep 2014 to 3 Sep 2017
11		Hon. Shri.Prakash Shamrao Patil	Chairman, Cangress (I), Tal-Malshiras, Akluj, Dist-Solapur	22 Aug.2014 to 21 Aug.2017
12		Hon. Shri. Tushar Balasaheb Pawar	At. Po. Belwade Haveli, Tal-Karad, Dist-Satara.	30 Aug.2014 to 29 Aug.2017



13		Vacant Post	--	--
14	Member (ICAR Nominate)	Hon.Dr. S. D. Sawant	Director, National Research Station on Grapes, Solapur Road, Pune.	01 Jan. 2014 to 31 Dec. 2016
15	Agro Industrialist	Hon.Adv.Shri. Krishnaji Dashrath Yadav	At.Po.Indapur, Dist-Pune	--
16	Member (Member Maharashtra Legislative Assembly-03)	Hon. Krishibhushan Shri. Sahebrao Patil	Rajbhavan Tahsil Office, Dhule Road, Ammalner, Dist-Jalgaon	24 Nov. 2010 to up to Member of Maharashtra Legislative Assembly
17		Hon. Prof. Sharad Patil	Raktashray, Subhashnagar, Dhule-424001	24 Nov. 2010 to up to Member of Maharashtra Legislative Assembly
18		Hon. Shri. Anil Gote	S.S.1321, Galli No.04, Kholi Galli, Dhule	19 May, 2011 to up to Member of Maharashtra Legislative Assembly
19	Member (Member Maharashtra Legislative Council-02)	Hon. Shri. Shudhir Bhaksar Tambe	Galli No.01, Indirangar, Tal-Sangamner	14 Dec, 2010 to 5 Dec 2016
20		Vacant Post	--	--
21	Member (Chairman of Agril. Committee of ZP)	Hon.Shri. Rambhai Patil		
22		Vacant Post	--	--
23	Member Secretary	Hon. Registrar	Mahatma Phule Krishi Vidyapeeth, Rahuri	--
24	Member	Regional Dairy Development Officer,	Nasik Division, Campus of Govt. Dairy Scheme, Tryambak Road, Nasik-422002	--
25	Member	Regional Dy. Director of Fisheries, Nasik	Old Govt. Ashwin Barrel No.13, Near Divisional Commisior Office, Nasik Road-1, Nasik	--
26	Invitee	Hon. Comptroller	Mahatma Phule Krishi Vidyapeeth, Rahuri	--



7.3 Academic Council Members

Sl. No.	Category	Hon. Members	Address	
1	Ex-officio Chairman	Hon. Vice Chancellor	Mahatma Phule Krishi Vidyapeeth, Rahuri	
2	Member	Hon. Director of Extension Education	Mahatma Phule Krishi Vidyapeeth, Rahuri	
3	Member	Hon. Director of Instruction	Mahatma Phule Krishi Vidyapeeth, Rahuri	
4	Member	Hon. Director of Research	Mahatma Phule Krishi Vidyapeeth, Rahuri	
5	Member	Hon. Dean (Agril.)	Mahatma Phule Krishi Vidyapeeth, Rahuri	
6	Member	Hon. Dean (Agril. Engg.)	Mahatma Phule Krishi Vidyapeeth, Rahuri	
7	Member	Associate Dean (PGI)	Mahatma Phule Krishi Vidyapeeth, Rahuri	
8	Member	Associate Dean, Dr. ASCAE	Mahatma Phule Krishi Vidyapeeth, Rahuri	
9	Member	Associate Dean (LAE)	Mahatma Phule Krishi Vidyapeeth, Rahuri	
10	Member	Associate Dean/ Principal	College of Agriculture, Pune-411005	
11	Member	Associate Dean/ Principal	College of Agriculture, Kolhapur	
12	Member	Associate Dean/ Principal	College of Agriculture, Dhule	
13	Member	Associate Dean/ Principal	College of Agriculture, Nandurbar	
14	Member	Associate Dean/ Principal	College of Agriculture, Karad	
15	Member	Head, Department of Agronomy	Mahatma Phule Krishi Vidyapeeth, Rahuri	
16	Member	Head, Department of Animal Science and Dairy Science	Mahatma Phule Krishi Vidyapeeth, Rahuri	
17	Member	Head, Department of Agril. Botany	Mahatma Phule Krishi Vidyapeeth, Rahuri	
18	Member	Head, Department of Soil Sci. & Agril. Chemistry	Mahatma Phule Krishi Vidyapeeth, Rahuri	
19	Member	Head, Department of Agril. Economics	Mahatma Phule Krishi Vidyapeeth, Rahuri	
20	Member	Head, Department of Agril. Engineering	Mahatma Phule Krishi Vidyapeeth, Rahuri	
21	Member	Head, Department of Agril. Entomology	Mahatma Phule Krishi Vidyapeeth, Rahuri	
22	Member	Head, Department of Agril. Extension	Mahatma Phule Krishi Vidyapeeth, Rahuri	
23	Member	Head, Department of Horticulture	Mahatma Phule Krishi Vidyapeeth, Rahuri	
24	Member	Head, Department of Plant Pathology	Mahatma Phule Krishi Vidyapeeth, Rahuri	



25	Member	Head, Department of Food Science & Technology	Mahatma Phule Krishi Vidyapeeth, Rahuri	
26	Member	Head, Department of Bio-Chemistry	Mahatma Phule Krishi Vidyapeeth, Rahuri	
27	Member	Head, IFD-Irrigation Water Management	Mahatma Phule Krishi Vidyapeeth, Rahuri	
28	Member	Head, Department Agril. Meterology	College of Agriculture, Pune-411005	
29	Member	Head, Department of Farm Machinery & Power, Mech. Engg., Physics,	Mahatma Phule Krishi Vidyapeeth, Rahuri	
30	Member	"Head, Department of Irri.& Drainage Engg."	Mahatma Phule Krishi Vidyapeeth, Rahuri	
31	Member	Head, Department of Soil & Water Conservation Engg.,	Mahatma Phule Krishi Vidyapeeth, Rahuri	
32	Member	Head, Department of Agril. Process Engg.,	Mahatma Phule Krishi Vidyapeeth, Rahuri	
33	Member	Head, Department of Farm Sturcture, Rural Elect., Civil & Elect. Engg.	Mahatma Phule Krishi Vidyapeeth, Rahuri	
34	Member	Soils Specialist	Agril. Research Station, Solapur	
35	Member	Sugarcane Specialist	Central Sugarcane Research Station, Padegaon	
36	Member	Oilseeds Specialist	Oilseeds Research Station, Jalgaon	
37	Member	Wheat Specialist	Wheat Research Station, Niphad	
38	Member	Dr.A.A.Atre	Asso. Prof. Soil & Water Conservation Engg., Dr.ASCAE, MPKV, Rahuri	01 Nove. 13 to 31 Oct. 16
39	Member	Student Welfare Officer	Mahatma Phule Krishi Vidyapeeth, Rahuri	
40	Member Secretary	Hon. Registrar	Mahatma Phule Krishi Vidyapeeth, Rahuri	
Invitee Member (As per decision of AC (68) held on 15/2/96, vide subject No. 2)				
41	Invitee	Associate Director of Research	NARC, Shenda Park, Kolhapur	
42	Invitee	Associate Director of Research	NARC, Ganeshkhind Pune-7	
43	Invitee	Associate Director of Research	NARC, Igatpuri	
44	Invitee	Associate Director of Research	NARC, Solapur	
45	Invitee	Principal	College of Horticulture, Pune	



46	Invittee	Associate Director of Research	Directorate of Research, MPKV, Rahuri	(As per decision of AC (98) held on 14/02/13,)
Invittee (As per decision of AC (99) held on 15/11/2013 ,)				
47	Invittee	Dr. P.U.Krishnaraj,	Professor & Head,Department of BioTechnology, Institute of Agril. BioTechnology, University of Agril.Sciences, Dharwad-580005	
48	Invittee	Er.Rajeeb Kumar,	No.13, Victorian Meadows, Behind Bageecha Restrurant Airport, Varthur Road, Bangalore-560 037	
49	Invittee	Dr.V.M.Mayande,	"B-504, Mont Vert, Biarritz-2, Baner-Pashan Link Road, Pune-411 021. "	
50	Invittee	Dr.R.K.Pal	"Director, NRC, Pomegranate, NH-9, Solapur-Pune Highway, Kegaon (PO), Solapur District, Maharashtra, India-413 255."	
Principal (Affiliated Colleges) (MAU Act 1983, Section 33(2)(viii) read with Statute 4(viii)				
51	Invittee	The Principal	College of Agril. Business Manegement, Narayangaon, Dist-Pune	
52	Invittee	The Principal	College of Agriculture, Akluj, Dist-Solapur	
53	Invittee	The Principal	College of Agril. BioTechnology, Vidyanagari, Bhigwan Road, Baramati, Dist-Pune	
54	Invittee	The Principal	College of Agriculture, Ambi, Tal-Wadgaon Maval, Dist-Pune.	
55	Invittee	The Principal	K.K.Wagh College of Agriculture, Nasik, Dist-Nasik	



7.4 Academic Officer

Sl. No.	Designation of post	Name of Officer	Pay Scale (Rs.)	Period	
				From	To
1	Associate Dean (PGI)	Dr. B. R.Ulmak	37400-67000 +10000 AGP	1.4.2014	31.3.2015
2	Associate Dean, Agril. Engineering	Dr. P.A.Turbatmat	37400-67000 +10000 AGP	1.4.2014	31.3.2015
3	Associate Dean (LAE)	Dr. R.S.Patil	37400-67000 +10000 AGP	1.4.2014	31.3.2015
4	Associate Dean, College of Agril. Dhule	Dr. P.N.Rasal	37400-67000 +10000 AGP	1.4.2014	31.3.2015
5	Associate Dean, College of Agril. Pune	Dr. A.R.Karale	37400-67000 +10000 AGP	1.4.2014	31.12. 2014
		Dr. D.W.Thawal	37400-67000 +10000 AGP	1.1.2015	31.3.2015
6	Associate Dean, College of Agril. Kolhapur	Dr. G. G. Khot Holding additional charge	37400-67000 +10000 AGP	1.4.2014	31.3.2015

7.5 Academic Staff- Head of Department

Sl. No.	Designation of post	Name of Officer	Pay Scale (Rs.)	Period	
				From	To
1.	Head, Department of Agronomy	Dr.D.W.Thawal Holding additional charge.	37400-67000 +10000 AGP	01.04.2014	31.12. 2014
		Dr. M. B. Dhonde	37400-67000 +10000 AGP	01.01.2015	31.03. 2015
2.	Head, Department of Soil Science & Agril. Chemistry	Dr. A. L. Pharande	37400-67000 +10000 AGP	1.4.2014	31.3. 2015
3.	Head, Department of Agril. Botany	Dr. R.W. Bharud Holding additional charge	37400-67000 +10000 AGP	1.4.2014	31.3.2015
4.	Head, Department of Entomology	Dr.S.S.Jadhav Additional Charge	37400-67000 +10000 AGP	1.04.2014	31.03.2015
5.	Head, Department of Pathology	Dr. S. G. Borkar	37400-67000 +12000 AGP	1.4.2014	31.03.2015
6.	Head, Department of Horticulture	Dr. S. A. Ranpise Holding additional charge	37400-67000 +10000 AGP	1.4.2014	31.3. 2015
7.	Head, Department of Animal Science & Dairy Science	Dr. Y. G. Fulpagare Holding additional charge	37400-67000 +10000 AGP	1.4.2014	31.3. 2015
8.	Head, Department of Food Science & Technology	Dr. S. S.Thorat Holding additional charge	37400-67000 +10000 AGP	1.4.2014	31.3. 2015



Sl. No.	Designation of post	Name of Officer	Pay Scale (Rs.)	Period	
				From	To
9.	Head, Department of Agril. Engineering	Shri. P. A. Turbatmath	37400-67000 +10000 AGP	1.4.2014	31.3. 2015
10.	Head, Department of Agril. Meteorology	Dr. S. B. Kharbade Holding additional charge	37400-67000 +10000 AGP	1.4.2014	31.3.2015
11.	Head, Department of Extension Education	Dr. S. B. Shinde Holding Additional Charge.	37400-67000 +10000 AGP	01.04.2014	31.03.2015
12.	Head, Department of Agril. Economics	Dr. D. B. Yadav	37400-67000 +10000 AGP	1.4.2014	31.3. 2015
13.	Sugarcane Specialist, Padegaon	Dr. S. M. Pawar Holding Additional Charge.	37400-67000 +10000 AGP	01.4.2014	31.03.2015
14.	Principal Scientist, Jalgaon	Dr. S. C. Patil Holding additional charge	37400-67000 +10000 AGP	1.4.2014	31.3. 2015
15.	Chief Scientist & Associate Director of Research, NARP, Solapur	Dr. J. R. Kadam	37400-67000 +10000 AGP	1.4.2014	31.3. 2015
16.	Wheat Specialist, ARS, Niphad	Dr. A. P. Padhey	37400-67000 +10000 AGP	1.4.2014	31.3. 2015

7.6 Other Officers

Sr.No.	Designation of post	Name of Officer	Pay Scale (Rs.)	Period	
				From	To
1.	Registrar	Shri. S. R. Wankhede	37400-67000 + 8700 AGP	1.4.2014	31.03.2015
2.	Comptroller	Shri. P. B. Kardile	15600-39100 + 6600 AGP	1.04.2014	31.07.2014
		Shri. V. B. Jadhav Additional Charge	15600-39100 + 6600 AGP	1.08.2014	31.03.2015
3.	Students Welfare Officer	Shri. S. V. Patil, Holding additional charge	15600-39100 + 6600 AGP	1.4.2014	31.03.2015
4.	University Librarian	Shri. P. A. Shinde	37400-6700 +10000 AGP	1.4.2014	31.03.2015
5.	University Engineer	Shri. M. P. Dhoke (Additional Charge)	15600-39100 + 6600 GP	1.04.2014	31.03.2015



7.7 University Manpower

Sr. No.	Cadre	Pay Scale (Revised)	Sanctioned Posts	Posts filled in	Vacant posts	Remarks
1	2	3	4	5	6	7
	Group-A					
1	Vice-Chancellor	Fix Pay Rs.75,000/-	1	1	0	
2	Director of Instructions And Dean, Faculty of Agriculture,	37400-67000 + GP 10000 + SPL.4000	1	0	1	
3	Director of Research	37400-67000 + GP 10000 + SPL.4000	1	1	0	
4	Director of Extension Education	37400-67000 + GP 10000 + SPL.4000	1	1	0	
5	Associate Dean	37400-67000 + GP 10000 + SPL.3000	6	5	1	
6	Head of Department	37400-67000 + GP 10000	12	4	8	
7	Professor	37400-67000 + GP 10000	120	41	79	
8	Associate Professor	37400-67000 + GP 9000	228	153	75	
9	Assistant Professor	15600-39100 + GP 6000	421	278	143	
10	Sports Officer	15600-39100 + GP 6000	1	1	0	
11	Physical Training Instructor	15600-39100 + GP 6000	6	5	1	
12	College Liabrarian	15600-39100 + GP 6000	5	3	3	
13	Registrar	37400-67000 + GP 8700	1	1	0	
14	Comptroller	15600-39100 + GP 6600	1	1	0	
15	Students Welfare Officer	15600-39100 + GP 6600	1	0	1	
16	University Librarian	37400-67000 + GP 10000	1	1	0	
17	University Engineer	15600-39100 + GP 7600	1	1	0	
18	Deputy Registrar	15600-39100 + GP 6600	2	1	1	
19	Asstt. Registrar/ Asstt. Comptroller	9300-34800 + GP 4600	20	16	4	
20	Deputy Uni. Engineer	15600-39100 + GP 6900	1	0	1	
21	Asstt. Uni.Engineer	9300-34800 + GP 5400	1	1	0	
22	P.A. to Vice- Chancellor	9300-34800 + GP 4600	1	0	1	
23	Medical Officer	9300-34800 + GP 5400	2	1	1	
24	Security Officer	9300-34800 + GP 5400	1	0	1	
25	Pay and Accounts Officer	9300-34800 + GP 4600	3	3	0	



	Group-B					
26.	Sr.Res.Asstt.	9300-34800 + GP 4600 (M.Sc. & II Class & 5 year service) 9300-34800 + GP 4400	142	134	8	
27.	Veterinary Officer	9300-34800 + GP 4400 (For Graduate) 9300-34800 + GP 4300 (For others)	03	01	02	
28.	Superintendent	9300-34800 + GP 4400	35	25	10	
29.	Asstt. Supdt.	9300-34800 + GP 4300	54	33	21	
30.	Stenographer(H.G.)	9300-34800 + GP 4400	10	7	3	
31.	Stenographer(L.G)	9300-34800 + GP 4300	19	9	10	
32.	Technical Asstt.(Lib)	5200-20200 + GP 2800	01	00	01	
33.	Junior Engineer	9300-34800 + GP 4400 (for Graduate) 5200-20200 + GP 2900 (For Diploma)	16	15	01	
34.	Chief Artist	9300-34800 + GP 4300	01	01	00	
35.	Sr. Tech. Asstt.	9300-34800 + GP 4300	02	01	01	
36.	Movie Cameraman	9300-34800 + GP 4300	01	00	01	
	Group C					
37.	Jr.Res.Asstt.	9300-34800 + GP 4200	185	143	42	
38.	Jr.Vet. Officer	9300-34800 + GP 4400 (For Graduate) 5200-20200 + GP 2800 (For others)	02	01	01	
39.	Agril. Asstt.	5200-20200 + GP 2800 (After 7 yrs. service) 5200-20200 GP 2400	606	535	71	
40.	Live-Stock Supervisor	5200-20200 + GP 2400	8	7	1	
41.	Sr.Clerk	5200-20200 + GP 2400	151	132	19	
42.	Clerk-Cum-Typist	5200-20200 + GP 1900	234	160	74	
43.	Steno Typist	5200-20200 + GP 2400	15	5	10	
44.	Chief-Cataloguer	5200-20200 + GP 2800	07	2	5	
45.	Issue Asstt.	5200-20200 + GP 2000	9	6	3	
46.	Draughtsman	5200-20200 + GP 2800 5200-20200 GP 4200 (After 4 year service)	08	6	2	
47.	Tracer	5200-20200 + GP 2000 5200-20200 + GP 2400 (After 7 year service)	07	5	2	
48.	Sr. Mechanic	5200-20200 + GP 2400	4	4	0	
49.	Mechanic-Cum Electrician	5200-20200 + GP 2400	01	01	00	
50.	Jr. Mechanic	5200-20200 + GP 1900	03	03	00	
51.	Technical Asstt.	5200-20200 + GP 2800	04	4	4	
52.	Mechanical Supervisor	5200-20200 + GP 2800	01	01	00	
53.	Foremen Supervisor	5200-20200 + GP 2800	03	01	02	
54.	Farm Mechanic	5200-20200 + GP 2400	04	3	1	
55.	Fitter-Cum-Mechanic	5200-20200 + GP 2400	01	01	00	
56.	Fitter	5200-20200 + GP 2400	06	5	1	



57.	Machinist	5200-20200 + GP 2400	01	01	00	
58.	Turner	5200-20200 + GP 2400	03	02	01	
59.	Foundryman	5200-20200 + GP 2400	03	03	00	
60.	Audio Visual Operator	5200-20200 + GP 2400	04	3	1	
61.	Carpenter	5200-20200 + GP 2400 (For ITI) 5200-20200 + GP 2000 (For others)	11	11	00	
62.	Welder	5200-20200 + GP 2400	03	02	01	
63.	Wireman	5200-20200 + GP 2400 (For ITI) 5200-20200 + GP 1900 (For others)	24	19	5	
64.	Compounder (Medical)	5200-20200 + GP 2800	02	02	00	
65.	Nurse	9300-34800 + GP 4200	01	01	00	
66.	Photographer	5200-20200 + GP 2800	02	2	0	
67.	Artist-Cum- Photographer	5200-20200 + GP 2800	04	3	1	
68.	Dark Room Asstt.	5200-20200 + GP 2400	02	02	00	
69.	Asstt. Security Officer	5200-20200 + GP 2800	01	01	00	
70.	Plumber	5200-20200 + GP 1900	05	3	2	
71.	Maistry	5200-20200 + GP 1900	12	6	6	
72.	Surveyer	5200-20200 + GP 2400	01	01	00	
73.	Pump Operator	5200-20200 + GP 1900	03	02	01	
74.	Compositor	5200-20200 + GP 2000	02	02	00	
75.	Printer	5200-20200 + GP 2000	01	01	00	
76.	Sr.Artist	5200-20200 + GP 2800	01	01	00	
77.	Blacksmith	5200-20200 + GP 2400 (For ITI) 5200-20200 + GP 2000 (For others)	06	04	02	
78.	Telephone Operator	5200-20200 + GP 2400	02	2	0	
79.	Electrician	5200-20200 + GP 2400	01	01	00	
80.	Computer Operator	9300-34800 + GP 4200	02	00	02	
81.	Jeep Driver	5200-20200 + GP 1900	72	51	21	
82.	Tractor Driver	5200-20200 + GP 2000	16	9	7	
83.	Compounder(Vet.)	5200-20200 + GP 2400	04	04	00	
84.	Oil Engine Driver	5200-20200 + GP 1900	02	00	02	
	Group-D					
1	Mali	5200-20200 + GP 1800 (For Mali Training Certificate Pass) 4440- 7440 + GP 1300 (For others)	58	33	25	
2	Counter	4440-7440 + GP 1600	54	52	2	
3	Khansama	4440-7440 + GP 1600	05	1	4	
4	Khalashi	4440-7440 + GP 1600	02	0	2	
5	Lab Attendent	5200-20200 + GP-1900 (For SSC Pass) 4440-7440+ GP 1300 (For others)	45	35	10	
6	Lab-boy/keeper	4440-7440 + GP 1300	74	66	8	
7	Attendant	4440-7440 + GP 1300	14	10	4	
8	Paricharak	4440-7440 + GP 1300	01	01	00	



9	G.House Attendant	4440-7440 + GP 1300	02	0	2	
10	Lib Attendant	5200-20200 GP-1900 (SSC with Lib. Certificate) 4440-7440 GP 1600 (For others)	08	04	04	
11	Helper	4440-7440 GP 1300	12	11	01	
12	Wireman Helper	4440-7440 GP 1300	08	6	2	
13	Cleaner	4440-7440 GP 1300	03	02	01	
14	Beldar	4440-7440 GP 1300	02	0	2	
15	Messenger	4440-7440 GP 1300	05	3	2	
16	Security Gard	4440-7440 GP 1300	15	13	2	
17	Sweeper	4440-7440 GP 1300	23	22	01	
18	Peon	4440-7440 GP 1300	271	217	54	
19	Bullock Man	4440-7440 GP 1300	86	75	11	
20	Ploughman	4440-7440 GP 1300	27	21	6	
21	Watchman	4440-7440 GP 1300	156	127	29	
22	Animal Attendant	4440-7440 GP 1300	15	10	05	
23	Milkman	4440-7440 GP 1300	13	11	2	
24	Hamal	4440-7440 GP 1300	02	02	00	
25	Dresser	4440-7440 GP 1300	04	00	04	
26	Plant Collector	4440-7440 GP 1300	05	2	3	
27	Vet Attendant	4440-7440 GP 1300	03	2	1	
28	Store. Asstt	4440-7440 GP 1300	01	01	00	
29	Musiam Boy	4440-7440 GP 1300	01	01	00	
30	Field Maz.	4440-7440 GP 1300	02	01	01	
31	Field Servant	4440-7440 GP 1300	02	1	1	
32	Deliveryman	4440-7440 GP 1300	06	2	4	
33	Dairyman	4440-7440 GP 1300	02	1	1	
34	Gawali	4440-7440 GP 1300	03	3	0	
35	Herdsmen	4440-7440 GP 1300	03	02	01	
36	Polutaryman	4440-7440 GP 1300	04	02	02	
37	Dispensary Attendant	4440-7440 GP 1300	01	01	00	
38	Naik	4440-7440 GP 1600	04	3	1	
39	Massion	4440-7440 GP 1600	04	03	01	
40	Calfman	4440-7440 GP 1300	03	2	1	
41	Binder	4440-7440 GP 1600	2	0	2	
42	Ward Servant	4440-7440 GP 1300	01	01	00	
43	Workshop Mazdoor	4440-7440 GP 1300	04	04	00	
44	Mazdoor	4440-7440 GP 1300	1344	914	430	



8. Campus Development Activities

Completed Works

Sl. No.	Name of Works	Amount Rs.	Fund Head
1.	Construction of First floor for Bio-control Laboratories at C.C. Rahuri.	30.00 Lakh	RKVY
2.	Construction of office building for Horticulture Department at C.C. Rahuri.	30.50 Lakh	University Receipt
3.	Construction of Training Hall and Museum building for Farm Machinery & Testing Centre at C.C. Rahuri.	68.25 Lakh	University Receipt
4.	Construction of Vehicle shed at RFRS Ganeshkhind Pune.	9.98Lakh	M & R
5.	Waterproofing to the Boys Hostel at A.C. Kolhapur.	9.33 Lakh	M & R
6.	Construction of Permanent RCC Helipad at C.C. Rahuri.	9.74 Lakh	M & R
7.	Construction of Farmers Hostel building at KVK, Mohol, Dist-Solapur.	40.00 Lakh	ICAR KVK
8.	Construction of Administrative building at KVK, Mohol, Dist-Solapur.	80.00 Lakh	ICAR KVK
9.	Construction of compound wall spicer college side at RFRS, Ganeshkhind Pune.	26.00 Lakh	State Plan
10.	Construction of compound wall for 1 © block Shelgi Village at ATS, Solapur.	1851000/-	State Plan
11.	Increasing the height of existing compound wall and fixing grill over existing wall along the university road at A.C. Pune.	15.40 Lakh	State Plan
12.	Construction of RCC compound wall along the Wakadewadi Railway chal to E type Hostel at A.C. Pune.	20.70 Lakh	State Plan
13.	Construction of Laboratory building at Oil Seed Research station at Nimkhedi Dist-Jalgaon.	50.30 Lakh	State Plan
14.	Construction of Rat proof Godown at ATS Manjari Farm, Dist-Pune.	16.00 Lakh	RKVY
15.	Construction of Scientist Hostel at C.C Rahuri.	50.00 Lakh	University Receipt
16.	Construction of Rat proof Godown at D block at C.C. Rahuri.	16.00 Lakh	RKVY
17.	Construction of Girls Hostel for ATS at Kasabe Digraj, Sangli.	18.00 Lakh	University Receipt
18.	Construction of Boys Hostel for PG student at College of Agril. Kolhapur.	60.00 Lakh	ICAR
19.	Construction of Rat proof Godown at F block at C.C. Rahuri.	14.00 Lakh	RKVY
20.	Construction of RCC compound wall with brick masonry at ARS Nimkhedi & Mamurabad farm Dist-Jalgaon.	40.00 Lakh	State Plan
21.	Providing barbed wire fencing for farms at ARS, MoholDist-Solapur.	21.00 Lakh	Uni Receipt
22.	Construction of Girls Hostel at A.C. Kolhapur.	40.00 Lakh	ICAR
23.	Construction of Farmers Training centre at C.C. Rahuri.	40.00 Lakh	RKVY
24.	Construction of Laboratory building at ARS at Mamurabad Jalgaon.	75.00 Lakh	State Plan
25.	Construction of farmers Training centre at Jadhavwadi, Tal - Purandar, Dist - Pune.	35.00 Lakh	AICRP on Agril. Zone fruits (Fig and custard apple)
26.	Construction of Administrative Building,boys and girls hostel building at Nandurbar	912.32 Lakh	State Plan
27.	Construction of Agri.sulture college building and infrastructure facilities at Karad, Dist.Satara.	2186.23 Lakh	Revised state plan



9. University Budget

The Financial Status of Universities : The University receives grant in – aid mainly from State Govt. of Maharashtra, Indian Council of Agril. Research, New Delhi and Govt. of India. This University received ₹. 3286162 Thousand during the year 2014-15 from State Govt. of Maharashtra, Indian Council of Agril. Research, New Delhi and Govt. of India. The University generated revenue receipt of ₹. 213279 Thousand during the financial year 2014-15. Out of above total grants University incurred the expenditure of ₹. 3178529 Thousand. The details of grants received, revenue receipts generated and expenditure incurred by the University are given below.

Sl.No	Head of Account	Released Grants for F.Y. 2014-15	Expenditure
A) State Govt. 01- Crop.Husb.(Non-Plan)			
1.	Pension	90,92,16,000	90,92,16,000
2.	D.C.P.S.	2,00,00,000	2,00,00,000
3.	Salary	135,22,82,867	125,03,44,000
4.	Contingency	6,95,61,250	6,95,61,250
5.	Maintenance & Repairs	2,77,60,000	2,77,60,000
6.	Concession for Girls (Education & Hostel Fee)	20,22,000	20,22,000
7.	GIA - Salary	30,80,000	30,80,000
8.	GIA – Contingency	1,45,000	1,45,000
	Total Rs	238,40,67,117	228,21,28,250
B) State Govt. 03- Animal Husb.(Non-Plan)			
1.	Salary	2,33,01,712	2,33,01,712
2.	Contingency	10,91,400	10,91,400
	Total Rs.	2,43,93,112	2,43,93,112
	Total Rs. A + B	240,84,60,229	230,65,21,362
C) State Govt. 01- Crop.Husb.(Plan)			
1.	State Govt. Plan Scheme	6,75,00,000	6,75,00,000
	Total Rs.	6,75,00,000	6,75,00,000
D) State Govt. Crop.Husb.(Plan)			
1.	Agril. College, Nandurbar	7,50,00,000	7,50,00,000
2.	Agril. College, Karad	7,50,00,000	7,50,00,000
	Total Rs.	15,00,00,000	15,00,00,000
E) State Govt. (Schemes)			
1.	Rashtriya Krishi Vikas Yojana	1,77,00,000	1,77,00,000
2.	National Horticulture Mission	1,54,92,408	1,54,92,408
3.	E.B.C. Scholarship	2,45,99,051	2,45,99,051
4.	National Service Scheme	12,43,154	12,43,154
5.	Mah.State Floro. & Medi.Plant Bord	20,00,000	20,00,000
	Total Rs.	6,10,34,613	6,10,34,613
F) I.C.A.R., New Delhi			
1.	75 : 25 % Schemes	20,02,88,015	20,02,88,015
2.	100 % Schemes	13,55,24,011	13,55,24,011
	Total Rs.	33,58,12,026	33,58,12,026
G) Central Govt. Scheme			
1.	Central Govt. Scheme	5,00,75,983	5,00,75,983
	Total Rs.	5,00,75,983	5,00,75,983
H) University Revenue Receipts			
1	Revenue Receipts	21,32,79,000	20,75,85,000
	Total Rs.	21,32,79,000	20,75,85,000
	Total Rs. (A+B+C+D+E+F+G+H)	328,61,61,851	317,85,28,984

