CHAPTER- III
MAHATMA PHULE KRISHI VIDYAPEETH RAHURI:
AN OVERVIEW

3.1 HISTORICAL BACKGROUND:

India lives in villages and Agriculture has been the backbone of Indian rural economy since ages. To achieve the food grain demand of the country it is necessary to enhance the agricultural growth and for this agriculture education is very important. Visualizing the importance of Agricultural Education, University Education Commission under the Chairmanship of Dr. S. Radhakrishnan, recommended the establishment of independent Rural Universities in the country in the year 1948. To start with, Gobind Ballabh Pant University of Agriculture and Technology at Pant Nagar was the first Agriculture Universities established in the year 1960, and subsequent Agricultural Universities established in India have embraced education, research and extension integral to their functioning. At present, there are 65 state Agricultural Universities, five Deemed to be universities, one Central Agricultural University and four Central Universities having distinct agricultural Faculties.

Based on the recommendations of the Kothari Education Commission (1966), initially only one agricultural university named the “Maharashtra Agricultural University” was established in 1968 by the Government of Maharashtra with its head quarter at Bombay. However, as the state of Maharashtra constitutes four regions with distinctly different agro climatic zones, cropping patterns and research needs etc. the agriculturists, students and politicians jointly made a demand for a separate agricultural university for each of their regions. Keeping in view the aspirations of the people and a speedy agricultural development, the then existing Maharashtra Agricultural University was made for Western Maharashtra, Kokan regions, Dr. Panjabraob Deshmuk Krishi Vidyapeeth at Akola for Vidarbha and Marathwada regions. However in 1972, two additional agricultural universities were created, namely Dr. Balasaheb Swant Konkan Krishi Vidyapeeth at Dapoli for Kokan region,
and Marathwada Krishi Vidyapeeth at Parbhani for Marathwada region. Thus by 1972, four independent agricultural universities were established in the state.

The Mahatma Phule Krishi Vidyapeeth 1969 has been named after the great social reformer Mahatma Jyotiba Phule the first champion for the cause of the farmers and underprivileged people living in the most miserable conditions. Mahatma Phule started his noble work by erecting a statute of a farmer at the entrance of the first Indian National Congress Committee meeting in 1885.

A learned farmer and dairyman, Late. Dr. Annasaheb P. Shinde, the then minister of State for Agriculture, Government of India played a significant role for selecting location of MPKV at Rahuri.

3.2 GEOGRAPHICAL BACKGROUND

The central Campus of MPKV, Rahuri is located about 35km. away from Ahmednagar on State Highway No.19 leading to Manamad. The Jurisdiction of MPKV, Rahuri extends over Western Maharashtra consisting of 10 districts viz., Jalgoon, Dhule, Nandurbar, Nashik, Ahmednagar, Pune, Solapur, Satara, Sangali and Kolhapur. The unique feature of this university jurisdiction is the wide variability in agro-climatic conditions of farming. Four out of nine agro-climatic zones of Maharashtra fall in this region. These are Western Ghat Zone, Sub-montance Zone, Western Maharashtra plain zone and scarcity zone. The total geographical area distributed among the 10 districts of this university is about 116 lakh ha (37.5 % of total geographical area of State). Out of this, about 72 lakh ha (62.4%) area is under cultivation. The area under kharif cropping is about 42 lakh ha (58%) while in rabi, it is about 30 lakh ha (42%) the Total irrigated are is 13 lakh ha (18%).

3.3 GROWTH OF INSTITUTION:

Under the provision of Maharashtra Agricultural Universities (MAU) Act, all agricultural colleges, schools training institutes, research station ions and related centers were transferred to the MPKV, Rahuri along with buildings and associated
farm land, which were earlier functioning under the Department of Agriculture, Government of Maharashtra. In addition to existing infrastructures of the institutions and staff. Additional lands area and staff was provided for establishment of MPKV Central Campus at Rahuri. The process of land procurement, development and creating facilities at Rahuri started since, 1969 under the dynamic leadership of first MPKV vice chancellor, Prof. M.S. (Alias Nanasaheb ) Pawar, for the period of about five years. Thereafter: need base development programmers related to agricultural education, research and extension education were undertaken under the leadership of Vice-Chancellors. The Present Vice-Chancellor Dr. T.A. More is providing leadership to MPKV w.e.f. December 31st 2010 to till date.

3.4 PRESENT STATUS OF UNIVERSITY.

3.4.1 Education

Initially only Agriculture faculty was established in this University Later on faculties of Agricultural Engineering (1969) and Veterinary Science (1988) were established. There are three constituents Agricultural College situated at Pune (1907) Dhule (1960) and Kolhapure (1963) for undergraduate degree programme and post graduate programmes are being offered at Post Graduated Institute Rahuri (1972) and at college of Agriculture, Pune (1984) Dhule (2010) Kolhapure (2009).

The Agricultural Universities adopted trimester system in the year 1968 with a view to impart more detailed instructions in the subjects with more focus on practical’s. However, experience in the initial stages revealed that the trimester system was more rigid and did not take into consideration, the season oriented farming in the country. As such the semester system was introduced in 1974. A novel program me was initiated during 1887-88 in the form of Rural Agricultural work Experience (RAWE) Programme on the line of internship programme in medical colleges. The students stay with the farmers for the entire period of VII semester, learn the skills of the farmers, experience difficulties faced by them and apply the knowledge gained at the college to suggest the modification to the farmers. The RAWE Programme was found very useful in learning agriculture live. A separate college of Horticulture was established during 1985 in the premises f the college of Agriculture, Pune and it offers B.Sc (Hort.) degree.
Under the Faculty of Agricultural Engineering, College of Agricultural Engineering was established in 1969. Which offers B.Tech degree, Post Graduate Degree, M.Tech. In four subjects namely Farm Machinery and Power, Irrigation and Drainage Engineering, Agricultural Process Engineering and soil and Water Conservation Engineering is also offered in this college since 1984.

Krantisinha Nanan Patil college of Veterinary Science was established at Shrivral (District Satara) in 1988. At present, this college is affiliated to University of Veterinary and Fishery Sciences, Nagpur.

The University also has a Faculty of Lower Agricultural Education in which non-graduate programmes are offered through the constituent agricultural schools and affiliated institutes. These institutes offer training in Dairy Technology, Poultry Keeping, Livestock supervisors Training, Mali Training etc. These training programmes are useful for providing trained manpower at the grass root level. As part of informal education, Krishi Vigyan Kendra (KVKs) have been started. The university has one KVK at constitute agriculture college at Dhule for catering the needs of the tribal areas of Dhule, Nandurbar and Jalgoan District. The ICAR, New Delhi has sanctioned three additional KVKs to MPKV Rahuri at Mamurabad Farm, Dist. Jalgaon: Borgaon, Dist. Satara and Mohol, Dist. Solapur with total 48 posts. The Krishi Vigyan Kendras run by Private institutes are affiliated to this university are also rendering very good service to improve on and off farm management practices.

3.4.2 Reforms in Education:
3.4.2.1 Implementation of Revised Course Curricula & Syllabi for Master & Doctoral Degree Programme:

In the changing scenario of agriculture and globalization an urgent need was felt to revise Course Curricula and Syllabi of the Master and Doctoral degree programme. The Indian Council of Agricultural Research (ICAR), New Delhi constituted a national core Group under Chairmanship of Dr. Katyal, Hon. Ex. Vice Chancellor, Haryana Agril, University consisting of 12 eminent academicians, renowned agricultural scientists and distinguished extension specialists for revision of the post graduate syllabi. The Director of Instructions Co-ordinations Committee
(DICC) of Four SAUs in Maharashtra appointed subject Co-coordinators for restructuring post graduate Master and Doctoral Curricula and Syllabi in the month of May 2009. The subject coordinators modified and designed the Course Syllabi considering the demands and local needs of the State. The subject co-coordinators considerable. Efforts to prepare the final document by July 2009. This document helped in implementing the revised syllabi from the academic year 2009-10. The Major features of revised syllabi include uniform degree nomenclature throughout the country, addition of six Non-credit Compulsory Courses (NCCC) standardized syllabus content, course listing at National Level, assigned appropriate credit load for theory & Practical courses, externally evaluated comprehensive examination, synopsis presentation of PG research with promotion of research publication and completion of degree program within stipulated time limit (e.g. two years for Master degree & three years for doctor degree.)

3.4.2.2 Modification of Academic Rules & Regulations for Post Graduated Degree Programme

With a view to effective implementation of revised PG syllabi and Curricula from academic year 2009-10. The modification of academic rules and regulations for PG Programme was the need of the hour, the associated dean of this institute took pioneer efforts for modification of academic rules and regulation based on recommendations of NCG, which are base line for four SAUs in Maharashtra. Accordingly, the distinguished changes suggested by NCG, ICAR, New Delhi regarding grading system, credit requirement, residential requirement, duration eligibility, constitution of the student advisory committee, non-credit compulsory courses, commencement of academic year of M.Sc. & Ph.D. degree programme (i.e. from first August), zero time loss between admission of Masters & Doctoral degree programme), evaluation of comprehensive examination, synopsis. Thesis submission and change in fee structure were incorporated in revised academic rules and regulations for PG Programme for smooth academic functioning and implementation from the year 2009-10.
3.4.2.3 Modification of Rules and Regulations regarding Student’s Council in UG/PG colleges

Student’s council is an integral part of academic activities in the development of a “Sensible National Citizen” and to foster better possible “Student-teacher relationship” through conduct of social service activities. In view of implementation of revised academic programme for Bachelor and Post Graduate degrees, the existing rules of student council were modified and were implemented from the academic year 2009-10.

3.4.2.4 Undergraduate programme as per Fourth Deans Committee

The IV Dean Committee under the chairmanship of Dr. S.L. Mehta Hon. vice Chancellor, MPAUT Udaipur nominated by the Indian Council of Agricultural research, New Delhi, recommended the syllabus for the year various degree programmers’ of the agriculture and allied disciplines. The Director of Instruction, Co-ordination committee of SAU s made necessary need based changes according to the requirements of the state and recommended to MCAER, Pune through the vice-chancellors Co-ordination Committee for implementation. Utmost sincere efforts were made to orient and revise the syllabus so as to inculcate entrepreneurship and make the students competent in the era of globalization. The revised syllabus has been implemented from 2006-07 . The Revised syllabus also offers hands-on-training to the UG students.

3.4.2.5 Experiential Learning

In the new curriculum, the IV Deans Committee has recommended 1-2 years of experiential learning. This is a new initiative with the primary aim of removing weaknesses in the present education system and to develop a cadre of highly skilled professionals. Who could create their own enterprises. The courses design is amide at competence development thought knowledge, not only in new and cutting edge technologies, but also in all aspects of enterprise management, so that the graduates have complete understanding of field problems, project development and execution with an end-to –end approach. The emphasis is given on developing skill for career in agri-business and agric-clinic. The layout of UG program includes six semesters of course work. One semester RAWE and one semester of electives in interdisciplinary
courses for entrepreneurship development. In the electives, students have flexibility to choose course’s. These courses have higher practical exercises for skill updating. The proportion of theory and practical is nearly 50:50. Removing the curriculum redundancy, the courses curricula is reoriented to develop the knowledge, skills and the entrepreneurial mindset of the students to take up self employment. Each college may provide specialization in 4 or 5 areas keeping in view the facilities available and the need. A few new courses are also introduced such as introductory agriculture, Renewable Energy, Organic Farming, Biotechnology, Agribusiness, Project Development Appraisal and Monitoring and Entrepreneurship Development.

3.4.2.6 Reorientation of Agricultural Diploma

The Changing scenario of agriculture and the need of skilled human resource led to realize the need to restructure the curricula of Lower Agricultural Education. The new curriculum has been designed with more emphasis on practicals. The first year curricula of 1200 marks is divided into 550 marks for theory and 650 marks for practicals whereas, the second year curricula of 1200 marks is divided into 350 marks for theory and 850 marks for practical’s. The syllabuses of some subject have been modified and the new subjects like crop protection agricultural engineering, information technology and agricultural business management have been included. Agro business projects of 300 marks have also been included. The options for the projects are seed production technology, soil, water and plant analysis, vermicompost, sericulture, nursery management, green house technology and floriculture, dairying sheep & goat rearing. Poultry keep in, fruit and vegetable processing, farm machinery, mushroom production, bio-fertilizer production and watershed development. From these, at least six projects should be implemented on commercial basis by the Agritech schools. The group of 10 students should be formed and trained in a particular project for the benefit of his self employment. The Agricultural schools have been converted into Agri-Tech Schools from the academic year 2007-08. The designation of the post of superintendent, Agril. School will be redesignated as Principal of Agri-Tech School. The University has produced 51425 skilled manpower thought this diploma like for the yare 2011-12.
3.4.2.7 Establishment of Agriculture Polytechnic

The Government of Maharashtra passed a resolution to convert all the 227 affiliated Agri. Tech schools of Maharashtra into Agriculture polytechnic from the academic year 2012-13. Therefore 87 Agri-tech schools were designated as Agriculture polytechnics from the academic year 2012-13. The duration of Agriculture polytechnic shall be of three years in semi English Medium. Each Agri. Polytechnic should have 20. ha land out of which 10.00 ha should be irrigated. The admission capacity of each Agri-polytechnic well be 60 students per year. Twenty percent extra seats will be created for admission to students of Agri.

Polytechnic to second year of under graduate degree programme in Agriculture, Horticulture, Forestry, Fisher, Agri, Biotechnology, Agri Business Management and Home Science Faculties on merit basis while ten percent extra seats will be created for admission to first year of under graduate degree programme to those students who have not secured admission by merit II nd year of UG. The students seeking admission after XII th std examination in agri. Polytechnic will be eligible for admission to II nd year in UG degree programme.

3.5 RESEARCH

The Jurisdiction of Mahatma Phule Krishi Vidyapeeth, Rahuri extends over the Western Maharashtra comprising of 10 districts divide in to four agro climatic zones viz, Western Ghats Zone, Sub-montane zone, Plain zone and Scarcity zone extended from Solapur to Nandurbad, Jalgaon district is locat ed in the assured rainfall of the Central Plateau Zone in the Jurisdiction of the University.

The University has a network of 27 research stations located in 4 agro climatic zones for conducting the research on soil, climate, cropping system, livestock and other aspects of farming business. The state level Crop Specialists are placed at Jalgon (Oilseeds) Padegaon (Sugarcane), Niphad (Wheat) and solapur (Soils). Moreover from 4 Zonal Research Stations are located at Igatpure, Pune Kolhapur and Solapur. Also there are 20 Sub- Research stations meant for verification of technologies developed by the university and to conduct research programmers based on feedbacks received from the farmers.
At present, there are 84 non-plan schemes funded by State Govt., 51 AICRPs on different crops/plant sciences, 2 Network Projects funded by ICAR on 100% basis. There is 1 centrally sponsored Research Scheme funded by the Central Govt. Ministry of Agriculture, 43 ad-hoc research projects funded by different agencies and 12 Research Projects under National Horticulture mission in operation in the jurisdiction of MPKV.

The University has concentrated its efforts to develop suitable technologies for dry land agriculture, irrigated farming as well as hi-tech agriculture. During the last 44 years, the university has released more than 200 high yielding varieties of cereals, pulses, oilseeds, vegetables, sugarcane, fruits, flowers and other cash crops. The university has also passed more than 1100 agro techniques for enhancing agricultural production and productivity of different crops. The contribution of university in water management is quite significant. The research on micro propagation refer of 24 farm implements and machinery, dry land horticulture, integrated pest and nutrient management including bio fertilizers, mushroom production etc. are worth mentioning. The university has focused its attention on location specific and need based research activities in order to cater the needs of all types of farers and framing groups. Biotechnology with its vast potential is important in agricultural development. The University has developed biotechnological competence in areas of plant tissue culture. Molecular biology, biocontrol agents and biofertilizers. A plant tissue culture laboratory is established with a view to develop and use the plant tissue culture techniques to supple net and compliment crop improvement research programme in MPKV, Rahuri. The Programmers of clonal propagation of elite type of eucalyptus, banana, sugarcane and embryo culture aided hybridization in ber, indication of somaclonal variation in sugarcane were conducted in the laboratory. This laboratory has been strengthened for a large scale multiplication of plants with grants received from the State and Central Governments, ICAR and DBT. tissue culture facilities have also been create at Regional Sugarcane Research Station, Padegaon, college of Agriculture, Kolhpur, Pune, Dhuole and at NARP Ganeshkind, Pune.
The University has established a biotechnology centre at the Central Campus Rahuri from its revenue receipts. This centre has initiated research work on characterization of crop varieties, hybrids and parents as well as microorganisms released by this university by DNA fingerprinting map based cloning of resistant genes, marker assisted selections and development of transgenic in chickpea and cotton.

3.6 EXTENSION EDUCATION:

The Agricultural Universities are entrusted with the responsibility of extension education activities. Which include training of extension personnel, official of agriculture and other developmental departments and farmers with up-to-date technology of increase agricultural production and to improve standard of living of farmers.

In view of this the university has established following various centers for effective extension activities.

3.6.1 Agricultural Technology Information Centre (ATIC)

The building of ATIC is located near the entrance gate at Central Campus Rahuri the ATIC provides a direct access to farmers for information and knowledge, strong linkage between different research divisions/ units and users of technology, a dynamic feed forward and feedback mechanism popularization of new technologies developed by the university, reply to the queries of farmers immediately through help line activity, and diagnostic service, distribution of seeds, saplings, seedlings, grafts, bio-agents, processed products and agricultural literature to farming community and generation of financial resources through sales and services.

3.6.2 Regional Extension Centers of MPKV:

The Regional Extension Centre (REC) has been established by the University at Dhule, Rahuri, Pune and Kolhapur. Each centre has a team of subject Matter specialists to look after extension education activities for selected two/three districts.
3.7. REFERENCES

- http://icar.ac.in (accessed on 29th September 2015).