

# 47<sup>th</sup> ANNUAL REPORT 2018-19



**Vasant Rao Naik Marathwada Krishi Vidyapeeth**  
**Parbhani - 431 402 (Maharashtra)**

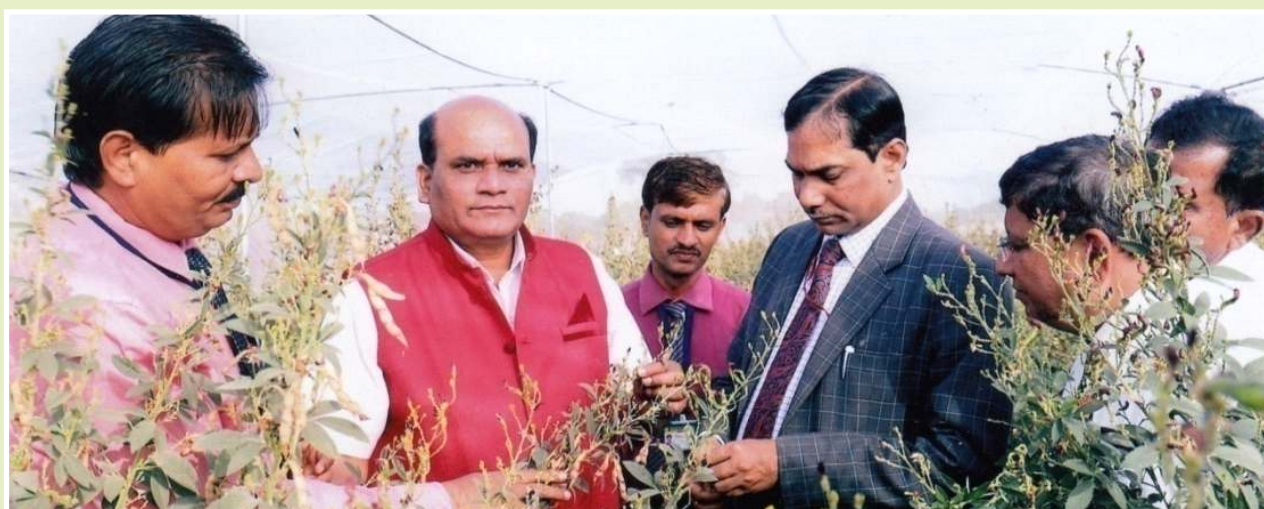
## GLIMPSES



Dr. T. Mohapatra, Director General, ICAR, New Delhi, Dr. Ashok Dhawan, Vice-Chancellor, Dr. B. Venkateswarlu, Former Vice-Chancellor, Dr. D.P. Waskar, Director of Research at cotton NHH-44 Bt demonstration plot



Dr. T. Mohapatra, Director General, ICAR, New Delhi, Dr. Ashok Dhawan, Vice-Chancellor, Dr. B. Venkateswarlu, Former Vice-Chancellor, Dr. D.P. Waskar, Director of Research at sorghum - Parbhani Shakti demonstration plot



Dr. T. Mohapatra, Director General, ICAR, New Delhi and Dr. D.P. Waskar, Director of Research at pigeonpea demonstration Plot, ARS Badnapur

**47<sup>th</sup>**  
**ANNUAL REPORT**  
**2018-19**



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## Annual Report Editorial Committee

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<b>Dr. Madan Pendke</b>	: Research Editor
<b>Dr. Ashok Jadhav</b>	: Dy. Director Research (Crops)
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Parbhani



**Dr. Ashok Dhawan**  
Vice-Chancellor  
Vasantnao Naik Marathwada Krishi Vidyapeeth  
Parbhani

## PREFACE

I have a great pleasure in presenting 47<sup>th</sup> Annual Report of Vasantnao Naik Marathwada Krishi Vidyapeeth, Parbhani. The significant contributions of the University in the field of education, research and extension during 2018-19 are presented in concise form.

This University is focusing to enhance the farmer's income through many interventions based on the basic and applied research. VNMKV is functioning in all the eight domain districts of Marathwada region through dissemination of modern technologies. Based on the agro-climatic conditions, farmer's need of the region and focusing the climate vulnerability, the University has developed many new varieties of various field and horticultural crops with reference to high production potential & quality aspects. New farm implements are designed. The University has made significant contributions in the field of Natural Resource Management. The large amount of seed was distributed to the farmers during University Foundation Day i.e. on 18<sup>th</sup> May.

Education in VNMKV is continuously monitored and reoriented with international collaborations wherever possible to meet the local needs. University is taking efforts to develop self-confidence in the students and innovative thinking to meet the national and global challenges. Students participated in tree plantation programme and 'Swachhha Bharat Abhiyan' through NSS programme, the sports meet and cultural events were organized for the students during this period.

University is actively involved in the transfer of improved and advanced technologies to farming community through a very effective extension system and demonstrations on farmers' fields were also organized. University organized the farmers rallies on 18<sup>th</sup> May, 17<sup>th</sup> September and 3<sup>rd</sup> January and crop specific advices were given to the farming community.

I express my sincere thanks to Government of Maharashtra, Government of India, Indian Council of Agricultural Research, New Delhi and other National / International Funding Agencies for their generous support. I would like to place on record the efforts taken by all my University colleagues without whose tireless efforts, the achievements of Vasantnao Naik Marathwada Krishi Vidyapeeth would not have been possible.

I wish to compliment Dr. D.P. Waskar, Director of Research & his team and Dr. P.G. Ingole, Director of Extension Education for bringing out this document in presentable form. I am sure that all our stakeholders would be benefitted by the information given in this annual report.

**Ashok S. Dhawan**  
Vice-Chancellor



**Shri. Chennamaneni Vidyasagar Rao**  
Hon. Chancellor &  
Governor of Maharashtra



**Shri. Devendra Fadanvis**  
Hon. Chief Minister of Maharashtra



**Shri. Chandrakant Dada Patil**  
Hon. Agril. Minister of Maharashtra



**Shri. Sadabhau Khot**  
Hon. Agril. Minister (State) of Maharashtra



**Shri. Sanjay Shamrao Dhotre**  
Hon. Vice-Chairman, MCAER



**Dr. Ashok S. Dhawan**  
Hon. Vice Chancellor, VNMKV, Parbhani

**Executive Council Members 2018-19**  
**Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani**

Sr. No.	Name	Address	
1	Dr. Ashok S. Dhawan	Vice Chancellor, VNMKV, Parbhani	Chairman
2	Shri.Satish Bhanudasrao Chavan	Member of Legislative Council Plot No. 10 Supriya, Jyoti Nagar, New Osmanpura, Aurangabad- 431 005	Member
3	Shri. Vinayak Mete	Member of Legislative Council, Tukai Niwas, Tirupati Nagar, Barshi Road, Beed	Member
4	Dr.Rahul Patil	Member of Legislative Assembly Torna, House no 138, Near Swami Samarth Temple, Shiwaji Nagar, Parbhani	Member
5	Shri. Santosh Danawe	Member of Legislative Assembly Shiwaji Nagar, New Bhokardan, Dist. Jalna	Member
6	Shri. Basavraj Patil	Member of Legislative Assembly	Member
7	Commissioner ( Agriculture)	Commissionerate of Agriculture, Central Building, Pune	Member
8	Divisional Assistant Commissioner (Animal Husbandry)	Khadkeshwar, Pune	Member
9	Director ( Horticulture)	Govt. of Maharashtra, Narvir Tanaji Wadi, Shiwaji Nagar, Pune	Member
10	Chief Conservator	Chief Conservation of Forest, Aurangabad	Member
11	Divisional Deputy Commissioner (Fisheries)	Office of the Fisheries, Govt. of Maharashtra, Near Collector Office, Aurangabad	Member
12	Divisional Dairy Development Officer	Office of the Divisional Dairy Development Jalna Road Aurangabad	Member
13	Dr.P.G. Patil	Director, ICAR-CIRCOT, Matunga,	Member
14	Sh. Limbajirao Bhosale	Progressive Farmer	Member
15	Sh. Ajay Vijayrao Gavhane	Progressive Farmer	Member
16	Sh. Balajirao Ramrao Desai	Progressive Farmer	Member
17	Sh.Sharad Sakharamji Hiwale	Progressive Farmer	Member
18	Sau. Pavitrabai Satyawar Surwase	Progressive Farmer	Member
19	Dr.Adititai Subhashchandra Sarda	Agricultural Entrepreneur	Member
20	Dr. V.D. Patil	DI & Dean, VNMKV, Parbhani	Member
21	Dr. D.P. Waskar	Director of Research, VNMKV, Parbhani	Member
22	Shri. M.B. Kulkarni	Comptroller, VNMKV, Parbhani	Invited Member
23	Shri. Ranjeet Patil	Registrar, VNMKV, Parbhani	Member secretary

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# INTRODUCTION

Vasantrao Naik Marathwada Krishi Vidyapeeth was established on 18th May, 1972 by the Government of Maharashtra to fulfil the needs of Agricultural education, aspirations of the people of Marathwada region and to cater to the needs of farmers leading to comprehensive agricultural development of eight districts of Marathwada region. This is one of the four Agricultural Universities in the state of Maharashtra. The entire region has rural setting. The objectives of the University include education in agriculture and allied sciences, research based on regional needs and technology transfer.

Marathwada region of Maharashtra state is comprised of 8 districts. The region lies between 17° 35' to 20° 40' N latitude and 74° 40' to 78° 16' E longitude. The altitude ranges between 300 to 900 m above mean sea level. The total geographical area of the region is 64.5 lakh ha with 57 lakh ha suitable for agriculture. However, net sown area is only 75 per cent of the total geographical area. The climate of Marathwada experience wide inter district and intra district variability. The region receives annual rainfall in the range of 500 to 1100 mm and comes under assured rainfall zone (60%), moderately high rainfall zone (20%) and scarcity zone (20%). The agricultural production in Marathwada region of Maharashtra State is limited primarily by erratic nature of the monsoon rains. The soils in the region are deep black, medium black, coarse and shallow. The major crops grown in the area are cotton, soybean, pigeonpea and sorghum,.

Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani imparts education leading to undergraduate and post graduate degree programmes under the faculties of Agriculture, Food Technology, Agricultural Engineering, Community Science, Agricultural Business Management and Agricultural Biotechnology. Agricultural colleges are located at Parbhani, Latur, Ambajogai, Badnapur, Osmanabad and Golegaon. Agricultural Engineering, Food Technology and Community Science Colleges are located at Parbhani. College of Agricultural Biotechnology is located at Latur while Post Graduate Institute of Agril. Business Management is located at Chakur. The University has extended affiliation to 43 private non granted colleges. As per the V Deans Committee's recommendation, this University has launched six Experiential Learning Projects in Food Processing, Human Development, Dairy Science, Horticulture and Soil Science to provide hands on experiences for developing professionalism in UG students.

Four Krishi Vigyan Kendras are under the direct control of the University to demonstrate the various advanced agricultural technologies to farmers.

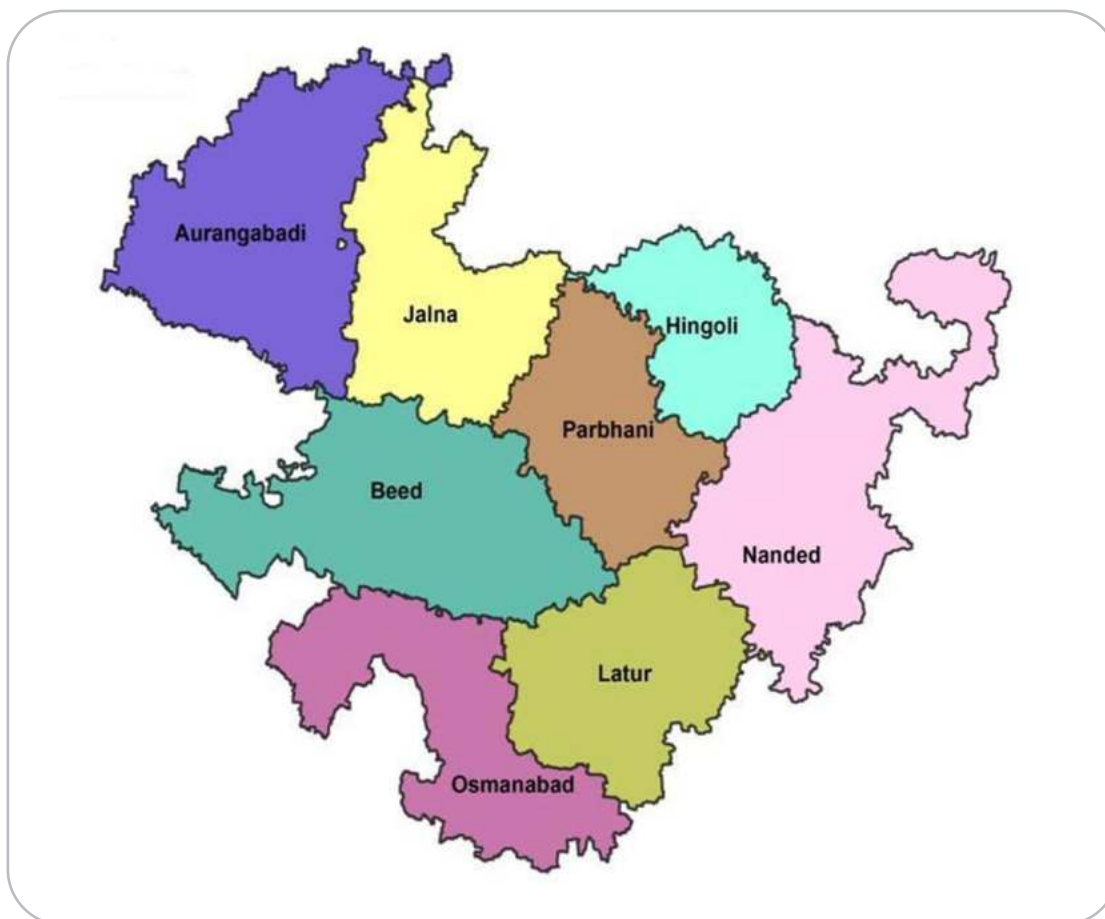
There are 9 constituent and 24 private Agricultural Technical Schools in which two years Marathi medium Agri. Tech. diploma is running. Private non aided 28 Agricultural Polytechnics are running in which three years semi English Diploma in Agricultural Technology is running.

University draws financial support from the State Government, ICAR (plan and non plan) and other funding agencies. The University has entered into MoU with reputed institutes like ICRISAT, Hyderabad; ICAR-NIPHM, Hyderabad, ICAR-CICR, Nagpur; ICAR-IIMR, Hyderabad; ISRO, Bangalore; ICAR-IARI, New Delhi; ICAR-NCIPM, New Delhi; TERI, Mumbai, BARC, Mumbai; CRIDA, Hyderabad; National Research Development Corporation, New Delhi, ICAR-National Bureau for Plant Genetic Resources, New Delhi, Mahyco, Jalna; Barwale Research Foundation, Hyderabad; CCMB, Hyderabad for funding Post Graduate Research, patenting, bio-technological applications, etc.

VNMKV has 3906 ha land being utilized for research, higher and lower education and seed production programmes. The central farm has four major blocks with 1893 ha land.

The VNMKV is a accredited University and placed in 'B' grade. The constituent UG, PG and Ph.D. programmes in various faculties are accredited by Peer Review Team of ICAR New Delhi for next five years.

The 47<sup>th</sup> Annual Report of Vasantnaik Marathwada KrishiVidyapeeth, Parbhani includes the information on education, research and extension education activities carried out during 1<sup>st</sup> April, 2018 to 31<sup>st</sup> March, 2019.



**Jurisdiction of VNMKV, Parbhani in Maharashtra**

# EDUCATION

Vasanthrao Naik Marathwada Krishi Vidyapeeth, Parbhani has 12 constituent colleges including 6 agriculture colleges and 1 each Horticulture College, Food Technology, Agriculture Engineering, Community Science, Agriculture Biotechnology and Post Graduate Institute of Agriculture Business Management which impart education to the following under graduate and post graduate programme.

## A) Under-graduate Degree Programme

1. B.Sc. (Agri.)
2. B.Sc. (Hort.)
3. B.Sc. (Community Science)
4. B.Sc. (Agri. Bio-Tech.)
5. B.Sc. (Agri. Business Management)
6. B.Tech. (Agril. Engineering)
7. B.Tech. (Food Technology)



## B) Post-graduate Degree Programme

1. M.Sc. (Agri)
2. M.Sc. (Hort)
3. M.Sc. (Community Science)
4. M.Sc. (Agri. Bio-Tech.)
5. M.Tech. (Agril. Engineering)
6. M.Tech. (Food Technology)
7. M.BA (Agri.)
8. Ph.D. (Agri)
9. Ph.D. (Community Science)
10. Ph.D. (Agril. Engineering)
11. Ph.D. (Food Technology)



## Under-graduate / Post Graduate degree programme

During the report period, number of students admitted and passed out for various UG and PG/Ph.D. programme are as under

## Constituent Colleges

Sr. No.	Name of the College	Year of Est.	Student intake Capacity		
			UG	PG	Ph.D.
1	College of Agriculture, Parbhani	1956	210	134	33
2	College of Agriculture, Latur	1987	94	108	
3	College of Agriculture, Osmanabad	2000	60	-	-
4	College of Agriculture, Ambajogai	2000	60	-	-
5	College of Agriculture, Badnapur	2000	60	36	-
6	College of Agriculture, Golegaon	2012	60	-	-
7	College of Horticulture, Parbhani	1984	40	-	-
8	College of Food Technology, Parbhani	1976	64	15	05
9	College of Agril. Engineering & Technology, Parbhani	1986	64	08	04
10	College of Community Science, Parbhani	1976	40	12	02
11	Vilasrao Deshmukh College of Agri. Biotech., Latur	2006	40	08	-
12	Post graduate Institute of Agri. Business Management, Chakur	2009	-	35	-
<b>Total</b>			<b>792</b>	<b>356</b>	<b>42</b>



## Non Granted Affiliated Colleges (Agriculture)

Sr. No.	Name of the College	Year of Est.	Student intake Capacity
			UG
1	College of Agriculture, Naigaon Bazar, Dist. Nanded	2002-03	60 + 60
2	Aditya College of Agriculture, Beed	2002-03	60 + 60 + 60
3	Dadasaheb Patil College of Agriculture, Dahegaon, Tq. Vaijapur	2002-03	60 + 60
4	Rajiv Gandhi College of Agriculture, Parbhani	2002-03	60 + 60

5	Chhatrapati Shahu Phule Ambaедkar College of Agriculture, Ashti	2004-05	60 + 60
6	College of Agriculture, Kanchanwadi, Aurangabad	2006-07	60 + 60 + 60
7	College of Agriculture, Kharpudi, Jalna	2008-09	60 + 60
8	College of Agriculture, Dongarshelkitanda, Udgir, Dist. Latur	2008-09	60 + 60
9	College of Agriculture, Nehrunagar Nagalgaon Tq. Khandhar	2008-09	60 + 60
10	College of Agriculture, Tondapur, Post Waranaga Phata Dist. Hingoli	2008-09	60 + 60
11	College of Agriculture, Georai Tanda, Aurangabad	2008-09	60 + 60
12	Netaji Subhashchandra Bose College of Agriculture, Markhel	2010-11	60 + 60
13	College of Agriculture, Selu, Dist. Parbhani	2010-11	60 + 60
14	College of Agriculture, Pathri, Dist. Parbhani	2010-11	60 + 60
15	College of Agriculture, Khandala, Tq. Vaijapur, Dist. Aurangabad	2010-11	60 + 60
16	Late Ambadasrao Warpudkar College of Agriculture, Warpud	2012-13	60
17	Mahatma Gandhi Mission College of Agriculture, Gandheli, Aurangabad	2012-13	60 + 60
18	College of Agriculture, Navha, Tq. & Dist. Jalna	2014-15	60
19	KSK College of Agriculture, RajuriNavgan, Beed	2014-15	60
20	College of Agriculture, AlniGadhpati, Osmanabad	2015-16	60
21	College of Agriculture, Pathri. Tq. Phulabri. Dist. Aurangabad	2015-16	60
		<b>Total</b>	<b>2340</b>

### Non Granted Affiliated Colleges (Food Technology)

Sr. No.	Name of the College	Year of Est.	Student intake Capacity UG
1	College of Food Technology, Rajuri Navgan Dist. Beed	2004-05	40 + 40
2	Aditya College of Food Technology, Beed	2004-05	40 + 40
3	Rajiv Gandhi College of Food Technology, Parbhani	2004-05	
4	QUEENS College of Food Technology, Aurangabad	2006-07	40 + 40
5	College of Food Technology, Naigaon Dist. Nanded	2008-09	40 + 40
6	Mahatma Gandhi Mission College of Food Technology, Aurangabad	2008-09	40 + 40
7	College of Food Technology, Loni, Tq. Udgir, Dist. Latur	2010-11	40 + 40
8	MIT College of Food Technology, Aundha Nagnath, Dist. Hingoli	2012-13	40
9	MIT College of Food Technology, Aurangabad	2014-15	40
10	College of Food Technology, Georai Tanda, Aurangabad	2014-15	40
11	College of Food Technology, Nehru nagar Nagalgaon, Tq. Kandhar	2015-16	40
12	College of Food Technology, Ashti, Dist. Beed	2015-16	40
13	Loknete Gopinathrao Munde College of Food Technology, Lodga	2015-16	40
		<b>Total</b>	<b>860</b>

### Non Granted Affiliated Colleges (Agriculture Bio-Technology)

Sr. No.	Name of the College	Year of Est.	Student intake Capacity
			UG
1	Mahatma Gandhi College of Agricultural Bio-Technology, Pokharni, Dist. Nanded	2004-05	40 + 40
2	College of Agricultural Bio -Technology, Gaorai Tanda, Aurangabad	2004-05	40 + 40
3	Mahatma Gandhi Mission College of Agricultural Bio-Technology, Gandheli, Aurangabad	2004-05	40 + 40
4	Aditya College of Agricultural Bio-Technology, Telgaon Road, Beed	2008-09	40 + 40
5	College of Agricultural Bio -Technology, Hatta, Tq. Basmat	2008-09	40 + 40
<b>Total</b>			<b>400</b>

### Non Granted Affiliated Colleges (Agriculture Business Management)

Sr. No.	Name of the College	Year of Est.	Student intake Capacity UG
1	College of Agricultural Business Management, Latur	2004-05	40 + 40
<b>Total</b>			<b>80</b>

### Non Granted Affiliated Colleges (Agricultural Engineering & Technology)

Sr. No.	Name of the College	Year of Est.	Student intake Capacity UG
1	Aditya College of Agricultural Engineering & Technology, Beed	2004-05	40 + 40
2	Sir Chhoturam College of Agricultural Engineering & Technology, Lodga, Dist. Latur	2014-15	40 + 40
5	College of Agricultural Engineering & Technology, Nehrunagar, Nagfalgaoon, Dist. Nanded	2015-16	40
<b>Total</b>			<b>200</b>

Number of candidates admitted and passed out during the year 2018-19 for various courses is given below

Sr. No.	Course	No. of students admitted	No. of students passed out in diploma/ Certificate Course
1	Agriculture Technical diploma	1212	473
2	Diploma in Agriculture Technology (Polytechnic) 1621+182+63=1866	1866	496
3	Mali Training Certificate Course 40+18=58	58	28



Felicitation of Students for the Achievements



Blood Donation Camp



Special NSS Camp



Practical Training to Students



Yoga Day



Organization of Motivational Lecture Series for Students



Training on Personality Development



Practical Training to Students



Practical Training to Students



Practical Training to Farm Women



### Faculty wise number of students completed the degrees during 2018-19

Sr. No	Course Name	No. of students
<b>Ph.D. Courses</b>		
1	Ph. D. (Agri.)	35
2	Ph. D. (Home Science)	08
3	Ph. D. (Food Tech.)	08
4	Ph. D. (Agril. Engg.)	06
	<b>Total A</b>	<b>57</b>
<b>PG Courses</b>		
1	M.Sc. (Agri.)	231
2	M.Sc. (Hort.)	34
3	M.Sc. (Home Science)	05
4	M.Tech. (Food Tech.)	11
5	M.Tech. (Agril. Engg.)	10
6	M.B.A. ( Agril. Business Management)	34
	<b>Total B</b>	<b>325</b>
<b>U.G.Courses</b>		
1	B.Sc. (Agri.)	1727
2	B.Sc. (Hort.)	38
3	B.Sc. (Home Science)	20
4	B.Sc. (Agril BioTech.)	281
5	B.Tech. (Food Tech.)	540
6	B.Tech. (Agril. Engg)	150
7	B.B.A. (Agri.)	32
	<b>Total C</b>	<b>2788</b>
	<b>Grand Total: A+ B+ C</b>	<b>3170</b>

### Lower Agricultural Education

There are 9 constituent and 24 private Agricultural Technical Schools in which two years Marathi medium Agri. Tech. diploma is running. Private non aided 28 Agricultural Polytechnics are running in which three years semi English Diploma in Agricultural Technology is running. The annual intake of the schools is 3660. The students passed 10<sup>th</sup> standard are qualified to apply for it. These schools provide trained manpower for gross root work. Total 46841 students have completed this diploma course.

**Number of candidates admitted and passed out during the year 2018-19 for various courses is given below**

Sr. No.	Course	No. of students admitted	No. of students passed out in diploma/ Certificate Course
1	Agriculture Technical diploma	1451	463
2	Diploma in Agriculture Technology (Polytechnic) 1358+158+41=1557	1557	117
3	Mali Training Certificate Course 38+20=58	58	27

## University Convocation

The 22<sup>nd</sup> convocation of Vasantnao Naik Marathwada Krishi Vidyapeeth, Parbhani was held on 26<sup>th</sup> December, 2018 at Parbhani. Dr. Trilochan Mohapatra, Secretary, DARE and Director General, Indian Council of Agricultural Research (ICAR) New Delhi was the Chief Guest. Shri Sadabhau Khot, Hon'ble Minister of State for Agriculture, Govt. of Maharashtra, Shri. Sanjay Dhotre, Hon'ble Member of Parliament and Vice Chairman, MCAER, Pune were the Guests of Honour. During this convocation, 2951 students were awarded Bachelor's degree, and Master's and Doctor's degree awarded to 364 and 61 student's, respectively.



## University Library

The University Library building is situated at centre place in University campus Parbhani. This library provides Library and information services to five colleges and all research centers in the campus. This is the single library to support the entire teaching, research and extension activities under this university. This entire activity calls for organized effort with adequate resources and technical manpower. This is possible only by organizing a sound library complex on the main campus and linking it with outside research stations, colleges and lower education, also networking local and national network for information resources- the sources of information can be shared each other for users satisfaction: presently this library is providing information network and CAB-CD ROM, Agris, FSTA CD ROM, EBSCO's Academic search premier CD-ROM database facility and openj-gate, cera.jccc.in, indiastat.com service for information services.

### Reading material

(a) Books	:	87260
(b) Back volumes of periodicals	:	17322
(c) Theses, dissertations	:	8856
<b>Total collection</b>	:	<b>113438</b>

### Journals

(a) Journals subscribed	:	57
(b) Journals on gratis	:	112
<b>Total journals</b>	:	<b>169</b>

### Library Membership

(a) Students	:	3119
(b) Teaching and Other staff	:	501
(c) Temporary members	:	205
<b>Total Library Members</b>	:	<b>3825</b>



### e-Resources

Cera e-journals : 3162  
J-gate agricultural and biological sciences e journals : 2880  
Diva enterprises e-journals : 100  
Subscribed e-books : 70  
I-scholar e-journals - 17  
Total e-journals : 6142  
Indiaagrstat.com-website providing statistical information

### Following Databases are available in the University Library :

#### CAB-CD ROM (Coverage : 1989-2012)

- It is equivalent of CAB Abstracts, covers all aspects of agriculture, forestry and allied disciplines. The database contains over 4 million bibliographic records with abstracts in English from papers originally published in 74 languages. Eighty per cent of the Agriculture literature is covered by the CD.

### **AGRIS (Coverage: 1999-2000)**

Covers all aspects of agricultural science and technology with 135 participating countries and 24 regional/international centres, AGRIS is based on the world's most extensive network for the compilation of bibliographic data. The network is coordinated by the Food and Agriculture Organization (F.A.O.) of the U.N.

### **Computerized documentation and Information Service**

In the University Library at present there are three Servers, 21 PCs, Nine printers, three scanners and Commonwealth Agricultural Bureaux CD-ROM database, AgrisCD-ROM database, Food Science and Technology Abstracts CD-ROM database, EBSCO Academic search premier CD-ROM database, Ph.D. Theses database and JCC and cera.jccc.in, krishiprabha, openj-gate, Indiastat.com databases are available. Indices and Abstracts can be provided on Agriculture and related subjects by these databases. Full text papers are also available in some of the above databases. Researchers are provided documentation and information service by these databases. Subject-wise Indices and Abstracts are provided by printing on printer.

Two 5 KVA UPS and one 10 KVA are purchased for back-up at the time electricity breakup. Training DVDs procured are helpful for students / faculty members.

Apart from this, internet, e-mail, OPAC, document delivery service, prevalent information dissemination service and other network services are made available to library members. For internet, intranet, CD-ROM browsing services free of cost for the all readers. Daily on an average 100 readers use all the above mentioned information services. For computerizing the library services i.e. circulation, cataloguing etc, SLIM-21 software has been purchased and work on the software has been started and connected with all components of RFID

### **Digital Library Section**

University Librarian has purchased Digital library solution server for creating Digital library and to provide the facility to the users throughout the campus. Digital library section also provides Audio Visual Facility to the library users, university librarian purchased 76 training programme DVD's from national education and information films ltd., Mumbai.



## Students' Welfare Office

Students Welfare Office of the university is engaged in well-being and overall development of University students. This office is organizing Programmes like sports meet, Youth Festival and National Service Scheme to develop sports skills and platform for talent in cultural and leadership in students.

**Gymnasium :** For good health of the students residing in headquarter, well equipped Gymnasium is available in this office. The equipments like single station Gym along with 31 machines and weight lifting instruments are provided in Gymnasium hall.

**Play Grounds :** In University sports complex, outdoor and indoor ground facilities for the students are available for inter collegiate Sports Meet.

**Outdoor games facilities :** Two basketball courts, one 400 X 10 M running track, 4 play grounds of Volleyball, Kho-Kho and Kabaddi are available in the sports complex.

**Indoor games facilities :** Two synthetic badminton courts and 4 Table tennis tables are available.

**Youth Festival :** For youth festival, hall along with all necessary material is available.

### Sports Meet Organization :

In 2018-19, Inter Collegiate tournaments for various games were organized for selection of university teams for various games to represent the university in Inter University Tournament.

### West Zone Inter University Tournament :

The following VNMKV teams have participated during 2018-19 in west zone inter university tournaments held at different universities.

Sr.No.	Sports Meet	University Name	Men	Women	Total
1.	Chess	Dr. PDKV, Akola	06	--	06

### Krida Mahotsav 2018

The Vasantnao Naik Marathwada Krishi Vidyapeeth, Parbhani teams participated in Kabaddi (Men/Women), Kho-Kho (Men), Volleyball (Men/Women) in Maharashtra State Inter University Sports Meet Krida Mahotsav-2018 held at Mumbai University Mumbai during 27<sup>th</sup> Jan. to 2<sup>nd</sup> Feb., 2019. The University contingent of 60 Players, 05 Team Managers and Sports Officer.

Sr.No.	Name of the Games	Men	Women	Total
1	Kabaddi	12	12	24
2	Volley Ball	12	12	24
3	Kho-Kho	12	-	12
	<b>Total</b>	<b>36</b>	<b>24</b>	<b>60</b>

### **Youth Festival :**

Inter Collegiate Youth Festival was conducted for selection of university teams to represent the university teams in various inter university youth festival. The university contingent of 40 members participated in Maharashtra State Inter University youth festival “Indradhanushya” held at Yashwantrao Chavan Open University, Nashik during 07/12/2018 to 11/12/2018. The University contingent of 40 Participants, 2 Team Managers & 5 Accompanists.

The VNMKV, Parbhani won the Quiz -Bronze Medal, College - Silver Medal in Indradhanushya Youth Festival-2018 Poster Making. West Zone Inter University Youth Festival Organize during 11/12/2018 to 23/12/2018 at Savitribai Phule Pune University, Pune. Miss. Swapnaja Khotare got third price in Rangoli Competition and also got selected for National Youth Festival Competition held at Chandigarh University, Punjab during date: 01/02/2019 to 05/02/2019 and she got fourth price in this Competition.

### **All India Inter Agril. University Youth Festival :**

The university contingent of 22 Participants, 02 Team Managers and 06 accompanists has participated in All India Inter Agril. University Youth Festival held at **Agriculture University Dantiwada, Gujrat** during 03/02/2019 to 07/02/2019. University team received 1. One Act Play- Gold Medal, 2.Skit-Gold Medal, 3. Rangoli - Gold Medal, 4.Folk Dance–Silver Medal 5.Collage-Silver Medal 6. Debate- Fourth Place. Our University got General Championship (Second Position).

### **All India Inter Agril. University Sports Meet :**

The university contingent of 42 Participants accompanists participated in All India Inter Agril. University Sports Meet held at **Punjab Agriculture University, Ludhina** during 02/01/2019 to 05/01/2019. The University won following medals in ICAR games organized at **Punjab Agriculture University, Ludhina**.

**1. Kabaddi – Gold Medal**

**2. Volleyball – Gold Medal**

**Athletics : 1500 Mtr. Running - Silver Medal**

### **Avishkar :**

The university contingent of 10 members and 01 team managers participated in research festival organized by **Gondwana University, Gadchiroli** during 15/01/2019 to 18/01/2019.

### **National Service Scheme :**

During 2017-18, 44 units of NSS with strength of 2800 volunteers were allotted different 44 colleges. The NSS volunteers of different units have done different social works and have organized special camp.

### **Celebration of Jayanti :**

To develop idealism in the minds of students this office organized different Jayanti Programmes at University level. The office celebrated the Jayanti Programme of Chatrapati Shivaji Maharaj on 19<sup>th</sup> February, 2019 & Bharatratna Dr. B. R. Ambedkar Jayanti on 14<sup>th</sup> April, 2019 respectively.

### **Felicitation of University students :**

In order to inspire the University students, this office organized the felicitation of students in presence of Dr. Ashok S. Dhawan Hon. Vice Chancellor VNMKV, Parbhani who showed excellence in various fields like Sports, Youth & NSS etc. organized on 27/07/2018.

# RESEARCH

The following research centres / stations / schemes are functioning in the jurisdiction of Marathwada region for conducting crop oriented research work as per agro-climatic zones.

Sr. No	Name of Research Centre / Scheme	Place	District
1.	Cotton Research Station, Mahboob Baugh Farm	Parbhani	Parbhani
2.	Regional Sugarcane Research Station	Basmatnagar	Hingoli
3.	Agriculture Research Station	Tuljapur	Osmanabad
4.	Bajra Research Station	Vaijapur	Aurangabad
5.	Fruit Research Station, Himayatbagh	Aurangabad	Aurangabad
6.	Agriculture Research Station	Badnapur	Jalna
7.	Cotton Research Station	Nanded	Nanded
8.	Banana Research Station	Nanded	Nanded
9.	Custard Apple Research Station	Ambajogai	Beed
10.	Taluka Seed Farm	Ambajogai	Beed
11.	Oilseeds Research Sub-Station	Ambajogai	Beed
12.	Water Management Research Station	Khamgaon	Beed
13.	Sweet Orange Research Station	Badnapur	Jalna
14.	Agriculture Research Station	Udgir	Latur
15.	Sorghum Research Station	Parbhani	Parbhani
16.	Seed Processing Plant	Parbhani	Parbhani
17.	Oilseeds Research Station	Latur	Latur

Similarly, following 23 All India Coordinated Research Projects are functioning in the University jurisdiction for conducting relevant research works under various crops and resource management.

Sr. No	Name of AICRP	Place	District
1.	All India Co-ordinated Sorghum Improvement Project	Parbhani	Parbhani
2.	All India Network Project on Soil Biodiversity-Bio fertilizer (BNF)	Parbhani	Parbhani
3.	AICRP on Water Management	Parbhani	Parbhani
4.	AICRP on Soybean	Parbhani	Parbhani
5.	AICRP on Community Science	Parbhani	Parbhani
6.	AICRP on Long Term Fertilizer Experiment	Parbhani	Parbhani
7.	AICRP on Utilization of Animal Energy with Enhanced System Efficiency (UAE)	Parbhani	Parbhani

8.	AICRP on Arid Legumes	Parbhani	Parbhani
9.	AICRP on Arid Zone Fruits (Custard apple)	Ambajogai	Beed
10.	AICRP Dept. of Agricultural Meteorology	Parbhani	Parbhani
11.	AICRP on Oilseeds (Safflower)	Parbhani	Parbhani
12.	AICRP on Dryland Agriculture	Parbhani	Parbhani
13.	AICRP on Chickpea	Badnapur	Jalna
14.	AICRP on Pigeonpea	Badnapur	Jalna
15.	All India Co-ordinated Pearl Millet Improvement Project	Vaijapur	Aurangabad
16.	All India Coordinated Cotton Improvement Project	Nanded	Nanded
17.	AICRP on Sunflower	Latur	Latur
18.	AICRP on Breeder Seed Production	Parbhani	Parbhani
19.	AICRP on Rice	Tuljapur	Tuljapur
20.	AICRP on Integrated Farming Systems	Parbhani	Parbhani
21.	AICRP on MullaRP	Badnapur	Badnapur
22.	AICRP on Vegetable Improvement	Parbhani	Parbhani
23.	AICRP on Biological Nitrogen Fixation	Parbhani	Parbhani

### Climate

**Rainfall :** During the period of June to September 2018 in Marathwada region, 488.1 mm rainfall was recorded and it was 31.6 % less than to the normal. Nanded and Beed districts of this region recorded the highest 749.4 mm and lowest 320.5 mm rainfall, respectively.

**Temperature :** The highest maximum temperature 42.7 °C was recorded during 18 and 19<sup>th</sup> MW and lowest maximum temperature 27.1°C in 51 MW whereas the highest minimum temperature 26.8°C was recorded during 21 MW and lowest minimum temperature 8.5°C in 52 MW.

**Relative Humidity :** The morning and afternoon relative humidity ranged between 40 to 92 and 11 to 80%, respectively.

**Sunshine :** The highest sunshine hours 10.8 hr. was recorded during 17<sup>th</sup> MW and lowest sunshine hours 0.3 hrs. in 28<sup>th</sup> MW, respectively.

### Monsoon activities in Marathwada region

The onset of SW Monsoon was reported during Second week of June (04<sup>th</sup>–10<sup>th</sup> June) in this region. Most parts of region, the sowing rains were recorded during 04<sup>th</sup> to 10<sup>th</sup> June and accordingly sowings were undertaken. The highest rainfall 749.4 mm and the lowest rainfall 320.5 mm was recorded in Nanded and Beed districts respectively. During this year, all the districts recorded less than normal rainfall. Over all, region recorded 488.1 mm rainfall which was 31.6 % less than normal. The withdrawal of monsoon was noticed during third week of September.



### **Impact of different crop environments on growth, yield and stress dynamics in Bt. cotton**

The crop sown in MW 25 (18 – 24 June) recorded highest seed cotton yield and found significantly superior over rest of the treatments. Bt. Cotton variety Ajiit 155 recorded highest cotton yield and found significantly superior over other hybrids.

The rainfall has been positively correlated with seed cotton yield at P<sub>2</sub>, P<sub>5</sub>, P<sub>6</sub> and P<sub>7</sub> stages of all varieties however, it was negatively correlated at P<sub>3</sub> and P<sub>4</sub> stage of all varieties. The maximum temperature has positively correlated with seed cotton yield at P<sub>1</sub>, P<sub>7</sub>, P<sub>8</sub> and P<sub>9</sub> stage and negative significant of P<sub>2</sub>, P<sub>5</sub> and P<sub>6</sub> stage of Ajeet-155 while Mallika and Ankur varieties positive correlation of P<sub>4</sub>, P<sub>6</sub>, P<sub>7</sub>, P<sub>8</sub> & P<sub>9</sub> and negative correlation of P<sub>2</sub> and P<sub>6</sub> stage. The minimum temperature has positively correlated with seed cotton of all stage of Ajeet-155, Mallika and Ankur varieties except P<sub>3</sub> stage has been negative correlation of Ankur and Mallika variety. The RH-I and RH-II has positive correlated with seed cotton at P<sub>2</sub>, P<sub>5</sub>, P<sub>6</sub> and P<sub>7</sub> and negative correlation of P<sub>1</sub>, P<sub>8</sub> and P<sub>9</sub> of Ajeet-155 variety while Mallika and Ankur varieties negative correlated of P<sub>1</sub>, P<sub>4</sub>, P<sub>7</sub>, P<sub>8</sub> and P<sub>9</sub> stages except P<sub>8</sub> and P<sub>9</sub> stage positive correlation of RH-II. The Bright sunshine hours has negatively correlated with seed cotton yield at all stages of Ajeet-155 variety except P<sub>1</sub> and P<sub>8</sub> while Mallika and Ankur varieties was negative correlated of P<sub>2</sub>, P<sub>5</sub>, P<sub>6</sub>, P<sub>7</sub> and P<sub>9</sub> stage remaining all stage was positive correlated of cotton crop.

### **Agro-advisory through Gramin Krishi Mausam Sewa (GKMS)**

“Gramin Krishi Mausam Sewa (GKMS)” Scheme is working under VNMKV, Parbhani. District Agromet Advisory Bulletin is regularly preparing on every Tuesday and Friday for all eight districts of Marathwada region of Maharashtra.

1. 103 AAS bulletins were prepared for all 08 districts and disseminated to the farmers by direct contact and through mass media communication during the financial year 2018-2019.
2. The Agromet Advisory Bulletin is broadcasting daily on all India Radio of Aurangabad, Parbhani, Nanded, Beed and Osmanabad for respective district.
3. The same Agromet Advisory Bulletins are disseminated to all farmers club through KVK's of Marathwada region.
4. It is also send through SMS on farmers mobile by KVK, Aurangabad, Agril. Met. Center, KVK Kharpudi (Dist. Jalna), KVK Tondapur (Dist. Hingoli).
5. AAB is also available on IMD WEBSITE ([www.imdagrimet.gov.in](http://www.imdagrimet.gov.in)) and on VNMKV, Parbhani Website ([www.mkv2.mah.nic.in](http://www.mkv2.mah.nic.in) or <http://www.vnmkv.ac.in>).
6. AAB is also disseminated to the farmers by Whats app, SMS by mkisan, SMS by Mahindra Kisan and Reliance foundation etc.
7. Total 2,75,900 no. of SMS was send to the farmers during last year.
8. Total 49,03,524 farmers received AAB from different mass and media communication.
9. Total 2250 villages are covered for dissemination of AAB.

## Research Highlights - 2018

Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli hosted the Joint Agricultural Research Committee (JOINT AGRESCO) in the month of May 2018. Crop varieties, Specific recommendations on research work along with implement released are as under,

### Variety Released

#### 1. *Kharif Sorghum : Parbhani Shakti (PVK 1009)*

Biofortified *Kharif* sorghum variety Parbhani Shakti (PVK 1009) recorded higher grain yield over PKV 809, PVK 801 and AKSV 181 and fodder yield over PVK 801. It has higher iron (42 mg/kg) and zinc (25 mg/kg) contents and also found moderately tolerant to grain mold, shoot fly and stem borer. The biofortified *Kharif* sorghum variety Parbhani Shakti (PVK 1009) is recommended for its release in *Kharif* sorghum growing areas of Maharashtra.

#### 2. *Cotton : PA-740*

Desi cotton variety PA 740 recorded 21.41 and 19.30 per cents higher seed cotton yield than check PA 402 and PA 08, respectively. It had superior fibre properties with tolerance to sucking pests, bacterial blight, alternaria and grey mildew. This variety is recommended for medium soil of Marathwada region.

#### 3. *Tamarind : Shiwai*

The genotype Shiwai is having highest length of fruit (20.43 cm), weight of pulp (494.07g), yield kg per plant (843.33) and TSS (41.6%), acidity (31.2%) and breadth of fruit (3.13 cm) as compared to other well known genotypes hence, it is recommended for release for cultivation in Maharashtra State.

### Implements Released

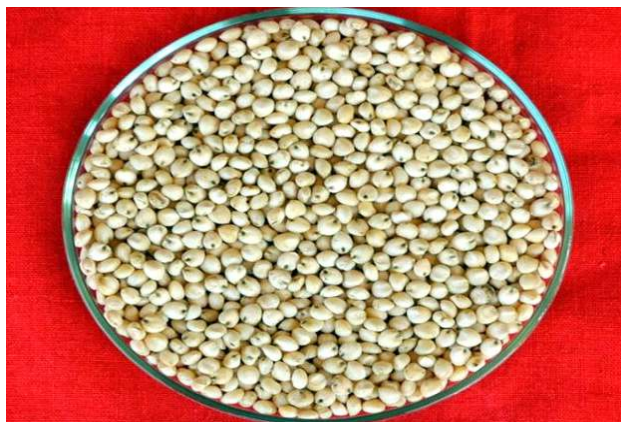
1. VNMKV developed Single Bullock operated Planter is recommended for sowing.
2. VNMKV developed Three tyne hoe with furrow opener is recommended for intercultivation in BBF sowing.
3. VNMKV developed tractor operated five row (BBF) raised bed planter cum sprayer is recommended for sowing and spraying.
4. VNMKV developed Bullock drawn solar operated sprayer is recommended for spraying of weedicide/pesticide.

### Research Recommendations : Crop Production and other Technologies

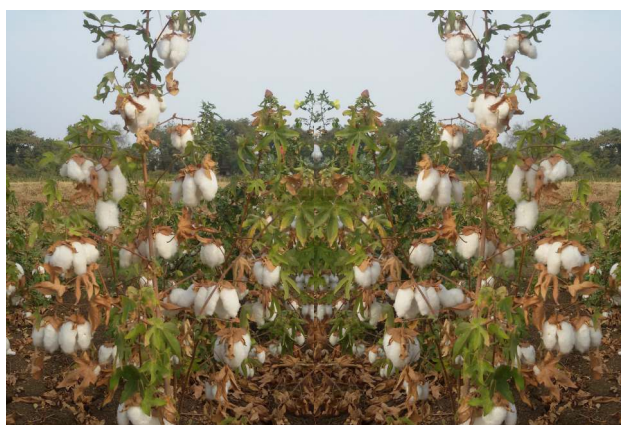
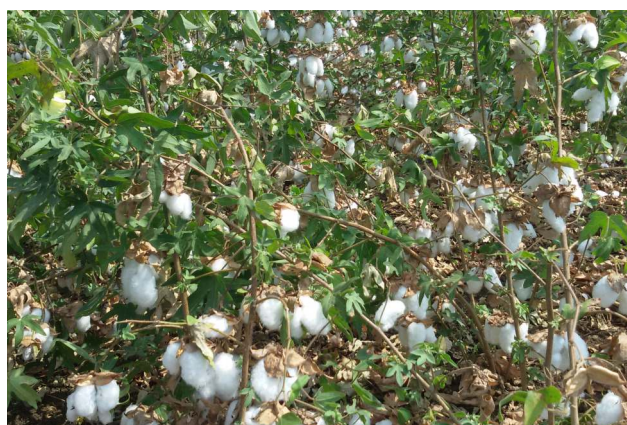
#### Agronomy

1. For maximizing the Pearl millet yield under late sown situations, sowing of pearl millet on 25th July + 5 days application FYM@ 5.0 t/ha + RDF (60:30:30 NPK kg/ha) + NPK foliar spray (19:19:19 Grade) @ 0.5% (50g/ 10 lit of water) at 20-25 days after sowing is recommended for Marathwada region.
2. The scheduling of irrigation at 75 mm CPE (February 15 days, March 10 days, April 7 days interval) through flood irrigation method is recommended for getting maximum yield and monetary return for summer pearl millet in Marathwada region.
3. Foliar application of FeSO<sub>4</sub>@0.75% (75g/10 lit of water) at 25-30 days after sowing is recommended for higher yield and monetary return in *Kharif* pearl millet for Marathwada region.

## Varieties Released



*Kharif Sorghum - Parbhani Shakti (PVK 1009)*



Desi Cotton PA-740



Tamarind : Shiwai

## Implements Released



Single Bullock Operated Planter



Three Tyne Hoe with Furrow Opener



Five Row BBF Planter cum Sprayer



Bullock Drawn Solar Operated Sprayer



4. In pre seasonal Bt. Cotton, for lowest para wilt seedling population, highest seed cotton yield and economical benefits, sowing of crop after 20 May under Flood irrigation and after 30 May under drip irrigation (with reduction of temperature below 39°C) is recommended for Marathwada region.
5. For highest seed cotton yield and higher economic returns of hirsutum cotton under high density planting system, de-topping at 75 days after sowing or 90 days after sowing or spraying of Mepiquate Chloride 5% AS @ 250 ppm (25 ml/10 lit. water) at 75 days after sowing is recommended.
6. For highest cotton equivalent yield, gross monetary returns, net monetary returns and weed control efficiency in cotton + soybean (1:1) intercropping system, pre-emergence application of Oxyflourfen 23.5% EC @ 0.1 kg/ha a.i. followed by hoeing at 6 weeks after sowing is recommended.
7. Application of cetyl alcohol @ 20 mg/sq. m. at an interval of 10 days is recommended for control of water loss due to evaporation up to 50 per cent from farm pond.
8. In medium to deep black cotton soils of Marathwada region to manage/minimize reddening of irrigated Bt cotton and to obtain higher seed cotton yield and net monetary returns per hectare, it is recommended to apply RDF 125 % through fertigation (100: 50 : 50 NPK kg/ha) along with two sprays of micronutrients grade – II mixture @ 0.5 % + potassium schoenite @ 1.0% at 55 and 70 DAS, respectively or to apply 75:37.5: 37.5 NPK kg/ha through soil application and application of 75:37.5:37.5 NPK kg /ha through fertigation.

### Plant Protection

9. For management of pod borer complex of pigeonpea and getting higher yield with monetary returns, first spray of chlorantraniliprole 18.5 SC 3 ml/10 lit of water at 50 % flowering stage and second spray of flubendiamide 39.35 SC 2 ml/10 lit of water at pod development stage are recommended.
10. For management of pigeonpea pod fly, it is recommended to fix 1 maggot/20 pods or 5% pod damage or 2% seed damage from randomly selected pods as Economic Threshold Level.
11. For Management of downy mildew of pearl millet, seed treatment of bio-agent *Pseudomonas fluoresces* (MYS-14) @ 8g/kg seed is recommended.

### Soil Science

12. It is recommended that cattle of Parbhani district of Marathwada region need to be supplemented with copper, manganese and zinc by formulating area specific mineral mixture using highly bio-available mineral salt to meet the nutrient deficiency of Zn, Cu and Mn which were found deficient in soil, fodder and serum of this region.
13. Seed treatment of liquid zinc solubilizer *Pseudomonas striata* @ 100 ml/10 kg seed + application of ZnSO<sub>4</sub> 30 kg ha<sup>-1</sup> is recommended to soybean along with recommended dose of fertilizers (30:60:30 NPK kg ha<sup>-1</sup>) for enhancement of soybean seed yield, monetary return and improvement in soil properties.

### Food Technology

14. A carbonated fruit beverage containing 0.5 per cent paneerdoda concentrated extract and 0.3 per cent sucralose is recommended as a health drink for diabetic patient.
15. For preparation of nutritional and nutraceutical capsules, the powder of leaves, flower, and pods of drumstick is recommended.
16. Incorporation of 0.2 per cent guar gum is recommended for improvement of spreadability of Soybean butter.

## Technologies Recommended



Nutrient Management in Pearl Millet



Irrigation Management in Cotton



Irrigation Management in Cotton



High Density Cotton Planting



Cotton + Soybean Intercropping (1:1)



Loose Housing Cattle Barn

## Technologies Recommended



Kesar Mango Leather



Turmeric Candy



Standardization of Paneer Doda Concentrate Based Carbonated Beverage



Nutritional Capsules from Drumstick



Application of Cetyl Alcohol for Reducing Evaporation Losses form Farm Pond

### Community Science

17. VNMKV refined and verified work station layout for Papad & Vermicelli production enterprises is recommended for improving health and efficiency of women workers.
18. VNMKV published book entitled Balavikasachi Uthkrusta Tantre-Palakansati Margadashika is recommended as it is based on Child Care, Development. Causes & Remedies of Developmental Disorders for educating parents of all sections and school teachers as it would serve as the best guide to them for guiding and taking needed action for well being of children.
19. It is recommended to use 10% mango kernel starch on cotton and silk fabrics as thickening agent for the purpose of screen printing.
20. It is recommended that VNMKV, Parbhani developed WRG weaning food prepared using wheat 20% rice 20% green gram dhal 27%, soya dhal 13% (all roasted), carrot powder 10%, skim milk powder 8%, coriander leaves powder 1% and cumin seed powder 1% rich in energy, protein, iron and calcium by mixing with warm water or milk to feed infants of 7-9 months age group.
21. To reduce the fasting and post prandial blood glucose of diabetic subjects and total cholesterol, triglycerides, LDL and VLDL cholesterol of hyperlipidemic subjects it is recommended to consume 50 g of VNMKV, Parbhani developed Multipurpose functional Food Mix as a breakfast snack for a period of 60 days.

### Agril. Engineering

22. For open space flooring of loose housing cattle barn, a section with 40 cm depth filled with compacted murum 20 cm followed by 10 cm plain cement concrete and single vertical layer of red brick construction in cement mortar 1:6 is recommended.
23. For the production of quality kesar mango leather, it is recommended to prepare mango foam by adding 3% GMS in mango pulp, whipping it for 2 minutes by blender, and then drying foam mat of 6 mm thickness at 60°C temperature in tray dryer by using foam mat drying technique.

### Bio-technology

24. It is recommended to use fluorescent labeled probe based 'VNMKV BBTV-ARRAY' Molecular detection kit for rapid, reliable, precise, cost effective and easy indexing of Banana Bunchy Top Virus in mother plant as well as tissue culture raised banana plantlets.

### Water Management

25. For higher grain yield and net monetary returns of post *Kharif* maize it is recommended to schedule alternate day drip irrigation at 80% cumulative pan evaporation through inline lateral laid at 120 cm apart for paired rows (45x30-75cm) and drip fertigation of 113:57:57 NPK kg/ha; N in 8 equal splits @ 12.5% at an interval of 10 days from 10 to 80 days after sowing while P and K in 2 equal splits at sowing and 30 days after sowing.



The fertigation schedule along with the quantity of soluble fertilizer required is given below:

Time of application	Fertilizer dose (113:57:57 NPK (kg/ha))			Soluble fertilizers (kg/ha)		
	N	P	K	Urea	0:52:34	0:0:50
At sowing	-	28.5	28.5	-	55	19.6
10 DAS	14.13	-	-	30.5	-	-
20 DAS	14.13	-	-	30.5	-	-
30 DAS	14.13	28.5	28.5	30.5	55	19.6
40 DAS	14.13	-	-	30.5	-	-
50 DAS	14.13	-	-	30.5	-	-
60 DAS	14.13	-	-	30.5	-	-
70 DAS	14.13	-	-	30.5	-	-
80 DAS	14.13	-	-	30.5	-	-

### Extension Education

26. It is observed that monocropping is prominent in all the districts of Marathwada with soybean and cotton as major crops grown under rainfed situation. Failure of crops due to drought was the main cause of farmers suicide. Therefore, it is recommended to initiate Integrated Farming System (IFS) which will diversify the income sources of marginal and small farmers and to create awareness for increasing the participation of the farmers by various extension agencies to construct farm ponds, recharge of wells/bores, water conservation techniques (*Jal Ukat Shivar*) and judicious use of available water through drip and sprinkler irrigation.
27. For creating hope amongst the severely distressed farmers in Marathwada region, it is recommended to provide psychological counseling facilities at village level by the government agency. Similarly daughters' marriage anxiety is one of the main social causes of farmers' distress in the region, hence it is necessary to promote group marriages in rural areas by government/non-government organizations.
28. It is observed from the study that productivity of pigeon pea has not increased significantly during last thirty years in Parbhani and Nanded districts of Marathwada, therefore it is recommended that the efforts may be made to disseminate improved pigeon pea production technology through extension agencies to improve the productivity levels particularly in Parbhani and Nanded districts.

## Launching of *Parbhani Shakti* variety of Sorghum – India's 1<sup>st</sup> Bio-fortified variety rich in Fe & Zn (July 5, 2018)

Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani and ICRISAT, Hyderabad jointly developed India's first biofortified *Kharif* sorghum variety Parbhani Shakti (PVK 1009) with significantly higher iron and zinc than regular sorghum was launched on July 5, 2018. This variety was developed under the Harvest Plus project and offers sustainable solution to address micronutrient deficiency in poor tribal families. The grain yield of this variety ranged 36-38 q/ha and fodder yield ranged 106-110 q/ha. This variety has an average grain iron concentration of 45 ppm and zinc 32 ppm which is considerably higher than other varieties that are currently being cultivated in India (about 30 ppm iron and 20 ppm zinc). A Memorandum of Understanding (MoU) was signed between VNMKV and ICRISAT for large-scale seed production, dissemination of this variety and development of new research technology. Newly developed variety launching function was organized at ICRISAT in the auspicious presence of Dr. A. S. Dhawan, Hon. Vice Chancellor, VNMKV, Parbhani, Dr. Peter Carberry, Director General (Acting), ICRISAT, Dr. D. P. Waskar, Director of Research, Dr. Ashok Kumar, Principal Scientist, Dr. S. P. Mehtre, Officer In Charge, Sorghum Research Station, Parbhani. Scientists from University, ICRISAT and progressive farmers also attended the function.



**Launching of *Parbhani Shakti* variety of Sorghum – India's 1<sup>st</sup> Bio-fortified variety rich in Fe & Zn (July 5, 2018)**



Smt. Sunandatai Shinde Manoli, Tq. Manwat, Dist. Parbhani receiving Sorghum (*Parbhani Shakti*) Seed for Cultivation

Shri. Madan Maharaj Shinde Manoli, Tq. Manwat, Dist. Parbhani receiving Sorghum (*Parbhani Shakti*) Seed for Cultivation



Demonstration of Sorghum (*Parbhani Shakti*)

## National Innovations on Climate Resilient Agriculture (NICRA)

### VNMKV addressing Dryland Technologies on farmers field through NICRA, Project

ICAR had launched National Innovations on Climate Resilient Agriculture (NICRA) project. The focus of the programme is to demonstrate the climate resilient agriculture technologies. All India Coordinated research project on Dryland Agriculture, Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani is one of the networking centre under this programme and Co-ordinated by Central Research Institute for Dryland Agriculture (CRIDA) Hyderabad. NICRA programme is being implemented with emphasis on identifying/demonstrating resilient practices/technologies in the thematic areas like real time contingency crop plan, rainwater harvesting (*in-situ* and *ex-situ*) and efficient use, and efficient energy use and management.

The NICRA programme is being implemented at Village Babhulgaon and Ujalamba Tq. & Dist. Parbhani on 54 farmers field. The dryland technologies developed by this centre were demonstrated through on-farm research for higher yield and income to increase resource use efficiency.

The centre is focusing on demonstration of various proven dryland technologies like improved varieties of crops and cropping systems, farm pond technology for rainwater harvesting and protective irrigation, farm mechanization, artificial well recharging, suggesting real time contingency plan to cope with weather aberration and stress management depending on drought situation on farmers field. The farmers were advised time to time about the adoption of various measures depending upon the situation arises.

The improved drought tolerant, short duration varieties recommended by this university of various crops viz. soybean, pigeonpea, green gram, black gram in *kharif* and gram, safflower, *rabi* sorghum in *rabi* were demonstrated on farmers field and resulted in higher yield even in unfavorable climate situation. The various stress management practices like water spray, KNO<sub>3</sub> spray and kaolin spray was advised to farmers to survive / sustain crop in prolonged dry spell condition.

The campaign on adoption of *insitu* moisture conservation practices for *kharif* crops like soybean, pigeonpea, cotton were taken on large scale for effective rain water management. This includes opening of furrow after every 4 rows (30 days after sowing) in soybean and pigeonpea intercropping, sole soybean crop and after two rows in cotton. The farmers were motivated to undertake sowing of soybean crop on Broad Bed and Furrow using BBF machine.

Because of the adoption of climate resilient technologies, the overall crop yield was enhanced by 22 to 27 per cent. Along with this, farmers have generated seed bank for supply of their own seed in nearby villages.

The developed artificial open well recharging technology was implemented on 10 farmers field in participatory mode and within a span of 3 years, overall increase in ground water level was recorded as 3.5 m with additional ground water recharge as 28 per cent. Bore well recharging technology was implemented on 4 farmers field in participatory mode during the year 2017 and later 12 farmers have implemented this technology on their own cost. This has resulted overall increase in ground water level was recorded as 5.4 m with additional ground water recharge as 36 per cent. This is because of the farmers could provide protective irrigation to various crops in *kharif* and *rabi* season



Demonstration of Dryland Technology in NICRA Villages

## Organization of Seminar / Workshop / Trainings

- **Model Training Course** : All India Coordinated Research Project on Dryland Agriculture, VNMKV, Parbhani organized a **Model Training Course on, “Climate Change and Rainfed Agriculture** sponsored by the Directorate of Extension, Department of Agriculture Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Govt. of India, New Delhi during October 13-20, 2018 at Parbhani. Around 25 officers from State Department of Agriculture and SMS from KVK's participated in this course from all over India.



- **One day workshop on “Kapus Fardad Nirmulan”** at Cotton Research Centre, Nanded was organized on 09 December 2018. Large Number of farmers and Agricultural officers attended the workshop
- Vasantnao Naik Marathwada Krishi Vidyapeeth, Parbhani and ICAR- Central Institute for Arid Horticulture, Bikaner jointly organized **Research Workers Annual Group Meet of AICRP on Arid Zone Fruits** during February 23-25, 2019 at Parbhani. Around 30 scientists from all over India participated in the Group Meet. Dr. W.S. Dhillon, ADG (Hort-I) ICAR New Delhi was the Chief Guest. Dr. P.L. Saroj, Director & PC, ICAR-CIAH, Bikaner presided over the function. Dr. T.A. More, Former Vice Chancellor, MPKV, Rahuri was the Guest of Honour. Dr. Ashok Dhawan, Hon. Vice Chancellor, VNMKV, Parbhani was President of the function. Dr. D.P. Waskar, Director of Research, VNMKV, Parbhani was also present for the function.



### Seed Production of Different Crop/ Varieties 2018-19

Sr.No.	Crop	Class of Seed	Quantity in Qtls
<b>I</b>	<b>SEED PRODUCTION</b>		
<b>A</b>	<b><i>Kharif</i></b>		
	1. Soybean	Breeder	2986.56
		Foundation	45.00
		Truthful	325.11
		Certified	486.40
	2. Tur	Breeder	254.47
		Foundation	60.35
		Truthful	378.25
		Certified	18.00
	3. Mung	Breeder	94.37
		Truthful	59.43
		Certified	10.50
	4. Udid	Breeder	8.00
	5. Jowar	Breeder	13.27
		Truthful	140.83
	6. Bajra	Breeder	12.31
		Truthful	-
	<b>Total</b>		<b>4892.85</b>
<b>B</b>	<b><i>Rabi</i></b>		
	1. Rabi Sorghum	Breeder	13.50
		Truthful	1.90
		Certified	11.30
	2. Chickpea	Breeder	149.19
		Truthful	1.59
		Foundation	39.45
	3. Safflower	Breeder	14.76
		Truthful	13.00
		Foundation	1.60
	4. Wheat	Breeder	78.00
		Foundation	27.00
	<b>Total</b>		<b>351.29</b>
	<b>Grand Total</b>		<b>5244.14</b>
<b>II</b>	<b>RECEIPT</b>		
	<b>A) Seed</b>	Rs.1,50,20,221/-	
	<b>B) Non -Seed</b>	Rs.94,16,103/-	
	<b>Total</b>	<b>Rs. 2,44,36,324/-</b>	

### Planting material developed and sold during 2018-2019

Sr. No.	Name of the Fruit crop	Number of Grafts/Layer/ seedlings sold	Rate (Rs)	Receipt in Rs.
1	Mango (Kesar) and other varieties	10257	60/-	6,15,420
2	Sapota var. Kalipatti	433	70/-	30,310
3	Guava Layers (Var.Sardar L -49 )	11668	50/-	5,83,400
4	Pomegranate Var.Ganesh, Bhag awa	7353	35/-	2,57,355
5	Tamarind Var.No.263, Prathisthan	932	60/-	2,38,320
6	Kagzi Lime	2398	25/-	59,950
7	Seedless lemon	205	30/-	06,150
8	Custard apple	8408	40/-	3,36,320
9	Hanuman fal	04	40/-	0160
10	Jambhul Var.Kokan Bhadoli	1734	60/-	1,04,040
11	Fig layers Dinkar	327	35/-	11,445
12	Aonla NA-7	472	40/-	018,880
13	Jamun seedlings	231	25/-	05,775
14	Aonla seedlings	28	25/-	0700
15	Tamarind seedlings	241	25/-	06,025
16	Custard apple seedlings	---	25/-	----
17	Other seedlings	15267	25/-	3,18,880
18	Show Plant Palm	563		028,150
	Sale of planting material net receipt of			26,84,075
19	Received Cheque EGS& VNMKV, Department	Planting Material		3,63,470
20	Auction of Mosambi, Santra	-----	----	076,000
	<b>Total Net Receipt Rs. (A)</b>			<b>31,23,545</b>
21	Sale from TMC Project	-----	----	-
22	Sweet Orange	5933	60/-	3,55,980
23	Orange	2144	60/-	1,28,640
24	Lemon	5501	30/-	1,65,030
25	Lemon	604	15/-	9,060
26	Rangpur Lime	1330	20/-	26600
	<b>Total Net Receipt Rs. (B)</b>			<b>5,56,670</b>
	<b>Total Net Receipt Rs. (A+B)</b>			<b>36,80,215</b>



### Product testing details 2018-19

Year	Name of Crop	Name of Research Station	No. of Hybrids/ Varieties for testing
2018-19	Bt Cotton	CRS, Nanded	12
	Bt Cotton	CRS, Parbhani	26
	Bt Cotton (Short duration)	CRS, Nanded	50
	Vegetable	HRS (Vegetable), Parbhani	189
	Pigeon pea	ARS, Badnapur	03
	Black Gram	ARS, Badnapur	01
	Soybean	Soybean Research Scheme, Parbhani	10
	Wheat	Wheat & Maize Research Unit, Parbhani	12
	Maize	Wheat & Maize Research Unit, Parbhani	45
	Bajra	NARP, Aurangabad	07
		<b>Total</b>	<b>355</b>
		<b>Testing fees received (Rs.)</b>	<b>2,00,02,500/-</b>
Year	Name of Crop	Name of Research Station	No. of products for testing
2018-19	Cotton	CRS, Nanded	21
	Cotton	CRS, Parbhani	10
	Vegetable	HRS (Vegetable), Parbhani	35
	Pomegranate	HRS (Pomology), Parbhani	1
	Pigeon pea	ARS, Badnapur	1
	Black Gram	ARS, Badnapur	1
	Chick pea	ARS, Badnapur	18
	Soybean	Soybean Research Scheme, Parbhani	10
	Ground nut	ORS, Latur	2
	Sweet orange	SORS, Badnapur	1
	Banana	Banana Research Station, Nanded	1
	Cabbage	Dept. of Entomology, Parbhani	1
	Pomegranate	Dept. of Horticulture, Parbhani	3
	Okra	Safflower Research Station, Parbhani	1
	Sugarcane	Sugarcane Research Station, Basmathnagar	1
		<b>Total</b>	<b>107</b>
		<b>Testing fees received (Rs.)</b>	<b>1,51,37,765/-</b>
		<b>Total Testing Fees Receipt (Rs.)</b>	<b>3,51,40,265/-</b>

### Awards Received by the Centre/ Scheme/ Scientist

1. **Dr. M.S. Pendke received Best Poster Presentation Award** in XVII Vasantao Naik memorial National Seminar on Potential, Prospects and Strategies for Doubling Farmers Income organised by Dr. PDKV. Akola during December 15-16, 2018.
2. **College of Food Technology received Best Poster Presentation Award (First Prize)** during International Conference on Recent Advances in Food, Herbal and Nano technology, held at Dept. of Biotechnology, College of Computer Science and Information Technology, Latur.
3. **College of Food Technology received Best Poster Presentation Award (Second Prize)** during International Conference on Recent Advances in Food, Herbal and Nano technology, Held at Dept. of Biotechnology, College of Computer Science and Information Technology, Latur.
4. **Dr. S.J. Magar received Best Oral and Poster Presentation Award** during Zonal Symposium of Plant Pathology held on August 23-24, 2018 at College of Agriculture, Nagpur.
5. **Dr. P.H. Vaidya received Distinguish Scientist Award** during International conference on Food and Agriculture (ICFA-2018) at Jharkhand
6. **Dr. P.H. Vaidya received Best Oral Presentation Award** during International conference on Food and Agriculture (ICFA-2018) at Jharkhand

### New Projects Sanctioned

Sr. No	Name of the Project	Sponsored by	Name of the PI	Amount, Rs.
1	Characterization, Evaluation of Genetic Resources for Genetic Enhancement and Improvement of Minor Pulses	Ministry of Science & Technology, Department of Bio technology, Govt. of India	Dr. D.K. Patil Sr. Scientist, ARS, Badnapur	81.722 Lakhs

### Seed Hub sanctioned during 2018-19

Sr. No	Funding Agency	Title	Amount (Rs. Lakh)
1	NFSM, Dept. of Agriculture, Govt. of India, New Delhi	Creation of seed hubs for enhancing quality seed availability of major oilseed crops - Soybean	150.00
2	NFSM, Dept. of Agriculture, Govt. of India, New Delhi	Creation of seed hubs for enhancing quality seed availability of major oilseed crops - Safflower	75.00
3	NFSM, Dept. of Agriculture, Govt. of India, New Delhi	Creation of seed hubs for enhancing quality seed availability of major oilseed crops - Sunflower	75.00

## Important Events



Dr. A.S. Dhawan, Vice-Chancellor addressing in Zonal Research & Extension Advisory Committee meeting



Release of Research Findings Publication during ZREAC Meeting at Aurangabad



Organization of Training Programme on Organic Farming



Organization of Mechanization Day



One Day Workshop on 'Kapus Fardad Nirmulan' on 9<sup>th</sup> Dec., 2018 at CRS, Nanded



Field Visit to NHH-Bt Cotton Plot

# EXTENSION EDUCATION

Directorate of Extension Education carries extension activities with the help of Regional Agricultural Extension Education Centres, Extension Education Unit, Krishi Vigyan Kendras and Agricultural Technology Information Centre. With the objective to disseminate the recent technologies developed by the university scientists in field of agriculture to the farmers', fields Extension Education Unit was established in the year 1975.

The Directorate of Extension Education was established *under Training and Visit Scheme* of Agricultural Extension in the year 1981-82. The mandate of T&V scheme was to give technical support to the extension workers of the State Department of Agriculture. In 2003, the offices of the Extension Agronomist were strengthened and four Regional Agricultural Extension Education Centres (RAEECs) were established at Parbhani, Aurangabad, Ambajogai and Latur. RAEECs are organizing monthly district workshops, pre-seasonal training programmes, short-term trainings, State level trainings, etc. to impart technique and knowledge to the staff working in the Department of Agriculture and line departments. RAEECs also organizes field visits, diagnostic team visits, farmers rallies, field days, exhibition, etc. for dissemination of technologies to farmers field.

***Agricultural Technology Information Centre (ATIC) was established*** at VNMKV, Parbhani on 01.01.2000. ATIC is single window delivery system for seeds, planting materials and products like bio-fertilizers, bio-pesticides, agricultural implements, processed products and literature etc.

The Marathwada region has 12 Krishi Vigyan Kendra. Out of these 4 Krishi Vigyan Kendra at Aurangabad (1983), Tuljapur (2000), Khamgaon (2010) and Badnapur (2018) were established under University, whereas remaining 8 KVKs are run by the NGOs. The Krishi Vigyan Kendras are aimed to reduce the time lag between the generation of technologies and their transfer to the farmers in the interest of farmers and increase agricultural production and overall socio-economic condition of the farmers.

## **Extension Education Activities conducted during 2018-19**

### **1. Monthly District Workshop (MDW)**

Monthly District Workshops were organized to provide technical support to Extension Workers of the State Department of Agriculture. The monthly messages were given to guide the farmers about field problems. Field visits were also organized during these workshops. 96 MDWs were organized and 6050 officers participated in these workshops during 2018-19.

### **2. Field Visit/Diagnostic Team Visit**

University Scientists organized 1653 field visits/ diagnostic field visits to the farmers' fields and solved the field problems of the 31745 farmers on the spot during these visits by assessing the crop problems in the field during 2018-19.

### **3. Farmers' Rally**

VNMKV organized ***Kharif Farmers' Rally on 18<sup>th</sup> May, 2018*** on the eve of University Foundation Day, ***Rabi Farmers' Rally*** on September 17, 2018 on the eve of Marathwada *MuktiSangran Din* and Women Farmers' Rally on 3<sup>rd</sup> January, 2019 on the eve of *Kranti Jyoti Savitribai Phule Jayanti*.

170 farmers rallies were also organized by different extension centres, colleges and research stations in the Marathwada region. In all, 87900 farmers, women, entrepreneurs, extension personnel and students participated in these rallies.

#### **4. Training programmes**

Directorate of Extension Education through its centers organized 423 need based training programmes for different clientele groups. 16500 farmers, farmwomen, youths, entrepreneurs, extension functionaries NGOs, and Self-help Groups members were trained in these training programmes during 2018-19.

#### **5. Action Plan Workshop and HRD trainings for KVK staff**

The Directorate of Extension Education & ICAR, ATARI, Pune jointly organized Action Plan Workshop for KVKs of the region on March 12, 2019. 95 PCs and SMSs from 12 KVKs of the region participated in the workshop and presented their action plans. The Director, Extension Education, VNMKV, Parbhani and experts from different subjects has given valuable suggestions in the workshop.

HRD training programme on Food Processing and Value Addition was also organized for KVK staff on December 20-21, 2018.

#### **6. Exhibitions**

The Directorate of Extension Education organized exhibitions on the occasion of farmers rallies at university campus. Colleges, Research Stations, Extension Centres & KVKs also participated in 30 exhibitions organized at State and National level. 710500 farmers took the benefit of these exhibitions organized.

#### **7. Group Discussion**

640 group discussions were organized for a group of farmers, women farmers, youths, entrepreneurs etc. having common interest in particular aspect of agriculture and allied sciences. 9200 farmers were participated in these group discussions.

#### **8. Field day**

To demonstrate the worthiness of the innovations on agricultural technologies 32 Field Days were organized at the farms of the progressive farmers, trial fields, and demonstration sites. 6135 farmers participated in these field days during 2018-19.

#### **9. Telephone Help Line**

This Directorate has been provided technical information to the farmers through Telephone Help Lines operating at ATIC, Parbhani, RAEEC, Latur, and KVK Aurangabad. More than 5600 Farmers asked questions on telephone about the cultivation practices of the various crops, pest and diseases control, dry land, fruit & vegetable technologies as well as other income generating enterprises.

#### **10. All India Radio & Doordarshan Programme**

In order to enable wider and faster reach to the farmers with enhanced quality of learning, this Directorate has broadcasted/telecasted 270 programmes on All India Radio & 72 programmes on Doordarshan.

#### **11. Publications**

This Directorate has published *Krishi Dainandani*, University Calendar, *Sheti Bhati* Magazine, Booklets and folders containing information on crop technologies developed by the university. These publications were sold / distributed amongst the farmers, students and extension workers.

#### **12. Press Publicity**

The technical information on modern agricultural technologies, day to day ongoing programmes and activities of various units were published through leading newspapers of the region. Besides this, bulletins and notes on seminars, trainings, workshops, farmers' rallies, field days, highlight of extension and research projects were formulated and released through newspaper.

### **13. Use of ICT tools**

SMS facility for the farmers is in operation at ATIC, Parbhani. Messages on the modern agricultural technologies and solutions to the problems faced by the farmers were given on the Mobile Phone under this facility.

Touch Screen facility for the benefit of farming community is available at Agricultural Technology Information Centre, Parbhani. Information on agriculture and allied fields is available to the farmers by simply touching the screen.

ICT tools like You Tube, Blog, Twitter, WhatsApp etc. were also used for technology transfer.

### **14. Plant protection Campaign under *Vidyapeeth Apalya Dari, Tantradnyan Shetawari***

Attack of Pink Bollworm on cotton and Fall Army Worm in Maize was severe during 2018-19. Campaign was conducted under *Vidyapeeth Apalya Dari, Tantradnyan Shetawari* with the objective to educate farmers on Pink Bollworm control and Maize Army Worm management. University scientists visited 165 villages and guided the farmers about pest control.

### **15. Participation in Campaigns organized by the state Department of Agriculture**

State Department of Agriculture, Government of Maharashtra organized special campaign “*Unnat Sheti Samrudh Shetakari*” during 24<sup>th</sup> May to 7<sup>th</sup> June, 2018 with the objective to increase the farm production. University constituted teams of scientists at block level for providing training and technical guidance to the farmers and extension workers. District & Divisional level committees monitored the whole campaign.

### **16. World Soil Health Day**

KVKs and extension centres celebrated World Soil Health Day on 5<sup>th</sup> December 2018. Soil health awareness programmes were organized on this occasion. Soil Health Cards were distributed to the farmers on this occasion

## Farmers Rallies



Dr. N.S. Rathore, DDG, ICAR, New Delhi addressing on 18<sup>th</sup> May, 2018 in *Kharif* Farmers Rally



Inaugural Function of *Kharif* Farmers Rally on 18<sup>th</sup> May, 2018



Dr. A.S. Dhawan, Hon. Vice-Chancellor addressing farmers on 17<sup>th</sup> Sept., 2018



Shri. Sanjay Dhotre, Hon. Vice-Chairman, MCAER addressing farmers on 17<sup>th</sup> Sept., 2018



Smt. Devyanitai Dongaonkar addressing farmers on 3<sup>rd</sup> January, 2019 in Women Farmers Rally



Inaugural Function of Women Farmers Rally on 3<sup>rd</sup> January, 2019

## **Regional Agricultural Extension Education Center & Agricultural Technology Information Centre**

The Agricultural Technology Information Center (ATIC) is single window delivery dissemination and supporting system for various innovative and farm worthy techniques, technical advice, diagnostic services & input supply. It aims to create strong linkage between research and extension in the pursuit of excellence in Agriculture. The Agricultural Technology Information Center established in 2000 and shifted in newly constructed building in January 2002, located near the main entrance of administrative building of Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani.

### **Extension Activities carried at ATIC And RAEEC, Parbhani during year 2018-2019**

#### **1. Monthly District Workshops :**

The monthly district workshop meetings are being conducted in Parbhani and Hingoli districts. The problems identified by the officers and extension workers of State Agriculture Department of the concerned district are thoroughly discussed jointly by the Scientists of the university and suitable measures on that particular problem are given in the meetings. During 2018-19, total of 13 workshops were conducted in Parbhani (02) & Hingoli (11) districts.

#### **2. Field Visits:**

Every Monthly district workshop is followed by the field visit on 3rd Wednesday and Friday in Parbhani and Hingoli districts, respectively. During 2018-2019 in all, 25 field visits were carried out in Parbhani (08) & Hingoli (17) districts.

#### **3. Diagnostic field visit :**

In addition to regular field visits, as and when required diagnostic visits were carried out in both the districts. The problems were observed and suggestions were offered by diagnostic teams of RAEEC. In all 10 diagnostic field visits were carried out as per the requirement in both the districts.

#### **4. Farmers Rallies:**

Farmers rallies were organized on the University foundation day i.e. on 18<sup>th</sup> May for *Kharif* season crops as well as on 17<sup>th</sup> September for *Rabi* season crops & on 3<sup>rd</sup> January for Women Farmers, during 2018-2019. Large number of farmers visited the Farmers Rallies and were benefited.

Through the joint activities of Agril. University, Agril. Department, KVK, Pesticide and fertilizer industries, Seed industries, Agril. Development Board, *Zilla Parishadas* well as voluntary organizations 19 farmers rallies were organized at village as well as block level on newly developed technique in Agriculture, improved and new varieties and hybrids of various crops. The information on these aspects was given by the university expert /scientists. The technical session and question – answer session for farmers were organized by ATIC, in all these rallies.

#### **5. Trainings:**

The special training programs for the officers of Agriculture Department in addition, to farmers training on various subjects were organized & lectures were delivered by ATIC Scientists. In all, 31 training programs were conducted during 2018-2019.



## 6. Exhibitions:

Permanent museum is established in the Central Hall of Agricultural Technology Information Centre. Seeds, Charts, Food products and laminations of different varieties and production technologies of crops recently developed by VNMKV, Parbhani are displayed. Total **102982** farmers visited the centre since 2000. In all, **2346** farmers had visited and taken benefit of this service in the year 2018-2019. During the year, about 06 exhibitions were organized at various locations, including the places of fair in the region.

## 7. Krishi Mahitiwahini :

The Telephone Helpline is started with effect from 7th October 2000. The Technical officers are available on phone number i.e. 02452-229000 for answering queries of farmers on every day in office timing. Name, Address and Questions of the farmers are recorded in the register and providing concern Specialists mobile number if required Total 30328 farmers had been benefitted through this service since 2000. In all 2895 farmers have been benefitted in the year 2018-19.

## 8. Farmer's queries in person (diagnosis and counseling) :

This centre provided diagnostic services to the farmers who brought the infested plant materials, soil samples and water samples. In all, 71 farmers were benefitted through this service during the year 2018-2019.

## 9. Information Technology Lab:

Information Technology Laboratory has been established in 2013 with ten multimedia devices and internet connectivity. The farmers can avail the facility of e-information and send their queries.

## 10. Sale of Publications at ATIC:

Publication on Agril. material plays important role in extension of agril. technologies, therefore, various publications published by university are sold at ATIC. In all Rs. /- university publication were sold during 2018-2019.

## 12. Innovative Activities:

### 1. "Vidyapeeth Aaplya Dari : Special plant protection programme"-An innovative Extension Programme of VNMKV, Parbhani

The innovative extension program i.e., *Vidyapeeth Aapalya Dari*: Special plant protection programme was implemented during 2018-2019. It was appreciated and welcomed at various platforms. It was implemented in Parbhani & Hingoli districts during July- 2018 to August 2018 in 52 Villages with following objectives.

The detail objectives of the programme were...

- a. To disseminate the Agricultural Technology in Marathwada region at the onset of Rabi season.
- b. To solve the problems on the spot that needs immediate attention viz; plant protection (Pink Bollworm Eradication), Contingent crop planning, dry spell management.
- c. To help to boost up the production and productivity of pulses and oil seeds.
- d. To develop confidence and generate hope among the farmers.

During this year the special emphasis was given on plant protection major emphasis particularly on Pink Bollworm Eradication and relevant technology generated by University on dry land agriculture. Especially the BBF technology for effective "Rainwater harvesting" and "In situ soil moisture conservation". Pink Bollworm Eradication programme has resulted in controlling the pest, maximizing the yield and stabilizing the crop productivity. In Parbhani & Hingoli districts the program was run during July-August 2018. The structure of the program was informal with having meetings, question-answer, field visit, group discussion and farmers rally etc.

## 2. Cotton *Furdad* Eradication Campaign:

Eradication *furdad* is an effective control measure in cotton to control the cotton pink boll worm. For this purpose 23 programmes were organized in Parbhani and Hingoli district for creating awareness about eradication of *furdad*.

## 13. PPP Model

Transfer of technology is one of the important mandates of the university. With the due course of time agriculture has become complex and need of precision extension has become a great need of the farmers particularly in rainfed agriculture. In view to cover more area and quick transfer of need based technology various Government & NGO and private sectors/firms are significantly contributing. In this context, ATIC centre has initiated few innovative programs jointly with Reliance foundation for transfer of technology.

### 1. Voice Messages

During the year 2018-2019 under PPP Model the ATIC centre has commensurate the Voice SMS service in collaboration with Reliance foundation. This service is effective for even illiterate farmers. The farmers have benefited through this service. The brief & accurate 654 need based voice messages on various important aspects like Pest and Disease Management, Fertilizer Management, Micronutrient Management, Irrigation Scheduling, etc., are being sent to the 375471 farmers.

### 2. Dial-out / Audio/Video Conferencing

The ATIC has started the audio conferencing facility for farmers in coordination with Reliance Foundation for the farmers. In this the farmers from particular village can contact in a group by audio conferencing and ask their queries in person to the university scientist who are together in the conference hall of ATIC and can get answer from this scientist. In all 03 Dial-out / Audio and 01 video conferences were conducted during the year 2018-2019.



**Extension Education activities executed for the year 2018-2019:**

<b>Sr No</b>	<b>Title of activities</b>	<b>No. of Activities Executed (2018-19)</b>
1	Monthly district workshops	13
2	Field visits	25
3	Diagnostic team visits	10
4	Farmer's rally	19
5	Trainings	
	Farmers training programs	25
	Officers training programs	6
6	Exhibition (Participation)	6
7	Krishi Mahiti Wahini - Telephone calls	2895
8	Farmers queries solutions –in person at ATIC	71
9	Monthly message	24
10	Publication Sale	598 Publications (Rs. 54040/ -)
11	Voice SMS to farmers	654 (37547 Farmers)
12	Audio Conferencing	4
13	Plant Protection Campaign (VADTS)	52 Villages
14	Research Articles	1
15	Popular Articles	11
17	News	60
18	Programs Broadcasted / Telecasted (Radio talk -3 and TV Shows 6)	9

## UNIVERSITY ADMINISTRATION

### University Officers

As per Maharashtra Agricultural Universities Act, 1983(14) and statute, 1990, the following are the Executive, Academic and Other officers of Vasantao Naik Marathwada Krishi Vidyapeeth, Parbhani during the year 2018-19.

#### A) Executive Officers

1	Chancellor	Hon. Shri Ch. Vidyasagar Rao
2	Pro -Chancellor	Hon. Shri. Chandrakant Dada Patil
3	Vice Chancellor	Hon. Dr. Ashok S. Dhawan

#### B) Academic Officers

1	Director of Instruction & Dean	Dr.V.D. Patil
2	Director of Research	Dr. D.P. Waskar
3	Director of Extension Education	Dr. P.G. Ingole
4	Associate Dean & Principal, COA, Parbhani	Dr. D.N. Gokhale
5	Associate Dean & Principal, COA, Latur	Dr. B. M. Thombre
6	Associate Dean & Principal, COA, Ambajogai	Dr. K.V. Deshmukh
7	Associate Dean & Principal, COA, Badnapur	Dr. G.M. Waghmare
8	Associate Dean & Principal, COA, Osmanabad	Dr. K.R. Kamble
9	Associate Dean & Principal, COA, Golegaon	Dr. D.B. Deosarkar
10	Associate Dean & Principal, College of Agr. Engg. & Tech., Parbhani	Dr. A.S. Kadale Dr. U.M. Khodke
11	Associate Dean & Principal, College of Food Tech., Parbhani	Dr. A.R. Sawate
12	Associate Dean & Principal, College of Community Science, Parbhani	Dr. H.L. Sarambekar
13	Associate Dean & Principal, College of Agril. Biotechnology, Latur	Prof. H.B. Patil
14	Post Graduate Institute of Agril. Business Management, Chakur	Prof. H.B. Patil
15	College of Horticulture, Parbhani	Dr. T.B. Tambe
16	Associate Dean Instructions, Parbhani	Dr. D.N. Dhutraj

### C) Heads of the Department

<b>Agriculture</b>		
1	Department of Agronomy	Dr. W.N.Narkhede
2	Department of Soil Science & Agril. Chemistry	Dr. Syed Ismail
3	Department of Plant Pathology	Dr. D.N. Dhutraj
4	Department of Entomology	Dr. P.R. Zanwar
5	Department of Extension Education	Dr. R.D. Ahire
6	Department of Agri. Botany	Dr. V.D. Salunke
7	Department of Agril. Economics	Dr. D. S.Perke
8	Department of Horticulture	Dr. G.M. Waghmare
9	Department of Animal Husbandry and Dairy Science	Dr. B.M.Thombre
10	Department of Agri. Engineering	Dr. U.M.Khodke
11	Department of Agril. Meteorology	Dr. M.G. Jadhav
<b>Food Technology</b>		
12	Department of Food Microbiology	Dr. H.B. Deshpande
13	Department of Food Engineering	Dr. D.M.Shere
14	Department of Food Business Management	Dr. D. R. More
<b>Community Science</b>		
15	Department of Human Development and Studies	Prof. Vishala Patnam
16	Department of Textile and Apparel Designing	Prof. Medha Umrikar
17	Department of Resource Management and Consumer Science	Dr. M.S. Kulkarni
18	Department of Food Science and Nutrition	Dr. Vijaya Nalawade
19	Department of Community Science Extension and Communication Management	Dr. Prabha N. Antawal
<b>Agricultural Engineering</b>		
20	Department of Irrigation & Drainage Engineering	Dr. H.W.Awari
21	Department of Soil & Water Conservation Engineering	Dr. A.S.Kadale
22	Department of Agril. Process Engineering	Dr.S.U.Khodke
23	Department of Farm Power & Machinery	Prof. S.N.Solanki
24	Department of Electrical & Other Energy Sources	Dr. R.T.Ramteke

#### D) Other Officers

1	Registrar	Sh. Ranjeet Patil
2	Comptroller	Sh. M.B. Kulkarni
3	University Engineer	Dr. A.S. Kadale
4	Student's Welfare Officer	Dr. M.S. Deshmukh
5	Deputy Registrar (Exam)	Dr. Gajanan Bhalerao
6	Deputy Registrar (Admn.)	Sh. R.V. Jukte
7	Assistant Registrar (Admn.)	Sh. P.M. Patil
8	Librarian	Sh. S.D. Kadam

Vacancy position as on 31.3.2019

### ABSTRACT

Sr. No.	Group	Sanctioned Post	Filled in Post	Vacant Post
1	A	598	351	247
2	B	169	82	87
3	C	729	422	307
4	D	1387	786	601
	<b>Total</b>	<b>2883</b>	<b>1641</b>	<b>1242</b>

#### Group -A

Sr. No.	Name of the Post	Sanctioned Post	Filled Post	Vacant Post
1	Director (Education, Extension, Research)	03	03	00
2	Associate Dean & Principal	12	05	07
3	Head of the Department	10	07	03
4	Professor	44	20	24
5	Associate Professor	183	104	79
6	Assistant Professor	284	180	104
7	Programme Co-coordinator	284	180	104
8	Subject Matter Specialist	24	13	11
9	Administrative post	34	18	16
	<b>Total</b>	<b>598</b>	<b>351</b>	<b>247</b>

### Group -B

Sr. No.	Name of the Post	Sanctioned Posts	Filled Posts	Vacant Posts
1	Senior Research Assistant -Agri	67	32	35
2	Senior Research Assistant–Agri Engg	01	00	01
3	Senior Research Assistant-Biotech	04	00	04
4	Senior Research Assistant -Food Tech	06	01	05
5	Veterinary Officer	01	01	00
6	KVK Programme Asstt.-Laboratory Technician	04	00	04
7	KVK Programme Asstt.-Computer	04	00	04
8	KVK Programme Asstt.- Field Manager	04	00	04
9	Section Officer	25	16	9
10	Assistant Section Officer	25	14	11
11	Assistant (Assistant Superintendent)	03	03	00
12	Stenographer	21	13	08
13	Technical Asstt. (Lib)	04	02	02
	<b>Total</b>	<b>169</b>	<b>82</b>	<b>87</b>

### Group C

Sr.No.	Name of the Cadres	Sanctioned posts	Filled - in posts	Vacant post
1	Computer Operator/Computer Programmer	2	00	02
2	Senior Clerk	66	39	27
3	Steno -typist	4	2	2
4	Jr. Stenographer (Grade– III) KVK	3	0	3
5	Computer Operator	1	0	1
6	Junior Clerk	157	109	48
7	Library Asstt.	6	2	4
8	Reprographic Asstt.	1	0	1
9	Compounder	2	1	1
10	Junior Research Assistnat	74	32	42
11	Junior Engineer	6	3	3
12	Foreman Supervisor	1	1	0
13	Supervisor Home -Science	1	0	1
14	Draftsman	1	1	0
15	Senior Mechanic	2	1	1

16	Junior Mechanic	1	1	0
17	Tractor Driver	5	0	5
18	Truck Driver	4	3	1
19	Driver	42	20	22
20	K.V.K.Driver	8	5	3
21	Agrilcultural Assistant	281	179	102
22	Agricultural Assistant (Bio-Tech)	2	0	2
23	Agricultural Assistant (Engineering)	2	0	2
24	Laboratory Assistant	15	2	13
25	Fieldman (Technical Instructor)	1	1	0
26	Electrician	8	5	3
27	Carpenter	3	3	0
28	Artists	2	2	0
29	Sub -Overser/Tech.Asstt.	5	1	4
30	Computer Operator	1	0	1
31	Montesory Teacher (Home.Sci.)	1	0	1
32	Laboratory Assistant (Home Sci.)	5	0	5
33	Telephone Operator	2	0	2
34	Plumber	4	2	2
35	Mistry	1	0	1
36	Boiler Assistant (Tech.)	1	1	0
37	Welder	2	2	0
38	Turner	1	0	1
39	Fitter	2	2	0
40	Audio Visual Operator	2	1	1



### Group- D

Sr. No.	Name of the Cadres	Sanctioned posts	Filled posts	Vacant posts
1	Lab. Boy	52	29	23
2	Labour	938	568	370
3	Watchman	149	48	101
4	Peon	110	42	68
5	Grazer	6	2	4
6	Attendant	9	3	6
7	Milker	4	2	2
8	Livestock Attendant	1	0	1
9	Book Bearer	1	0	1
10	Mistry	1	0	1
11	Dresser	1	1	0
12	Farash	1	1	0
13	Sweeper	27	19	8
14	Mali	19	16	3
15	Library Attendant	5	3	2
16	Laboratory Attendant	55	49	6
17	Cook	3	0	3
18	Jamadar	1	1	0
19	Rukhi / Walmiki	4	3	1
	<b>Total</b>	<b>1387</b>	<b>786</b>	<b>601</b>

#### Universities Authorities Meetings:

The meetings of the various bodies of the University authorities such as Executive council, Academic Council, Agricultural Research Council, Extension Council Faculties and Board of Studies were conducted from time to time during the period of report.

**Executive Council** : During the period of report, total 4 meetings of the executive council were conducted.

**Academic Council** : Two meetings of the Academic Council were conducted during the period of report.

**Agril. Research Council** : One meeting of the Agril. Research Council was conducted during the period of report.

**Extension Council** : One meeting of the Extension Council was conducted during the period of report.

**Educational Faculties** : Faculty meeting were conducted in all the faculties of agriculture and allied sciences during the period of report.

**Board of Studies** : Regular meetings of Board of Studies were conducted in all agriculture and allied sciences during the period of report.

## University Finance

MAU 2018 19

### REVENUE INCOME

Group Summary

1-Apr-2018 to 31-Mar-2019

Page 1

Particulars	Closing Balance	
	Debit	Credit
<b>ANIMAL HUSBANDRY RECEIPTS</b>		<b>11,72,762.00</b>
<i>Sale of Fym(Senkhat)</i>		420.00
<i>Sale of Milk &amp; Milk Produce</i>		10,34,682.00
<i>Sale of Poultry Products</i>		1,37,660.00
<b>CAPITAL RECEIPTS</b>		<b>8,85,060.00</b>
<i>Sale of Books &amp; Periodicals</i>		2,400.00
<i>Sale of Furniture/tools/dead Stock (Auction)</i>		3,95,597.00
<i>Sale of Live Stock</i>		4,87,063.00
<b>EDUCATIONAL RECEIPTS</b>		<b>12,85,62,764.50</b>
<i>Admission / Regi. Fees</i>		1,87,550.00
<i>Bonafide Fees</i>		25,246.00
<i>Convocation Fees</i>		2,53,850.00
<i>Electricity Charges ( Student)</i>		21,95,085.00
<i>Eligibility Fees</i>		1,51,500.00
<i>Enrolment Fees</i>		4,38,500.00
<i>Examination Fee 25%</i>		79,999.00
<i>Examination Fees 75%</i>		2,70,34,624.00
<i>Fine &amp; Dues</i>		57,861.00
<i>Grade Card Fees</i>		2,48,720.00
<i>Hostel Room Rent</i>		15,24,334.00
<i>Identity Card Fees</i>		1,485.00
<i>Insurance Charges From Student</i>		22,338.00
<i>Library Fee</i>		10,28,723.00
<i>Marklist &amp; Provisional Certificate Fees</i>		2,618.00
<i>Medical Examination Fees</i>		1,11,535.00
<i>Migration Fees</i>		2,04,900.00
<i>ODC PDC Fees / Verification</i>		16,53,850.00
<i>ONline Educaiton Fees</i>		8,04,09,983.50
<i>Other Educational Receipts</i>		25,80,845.00
<i>Registration Fees ( Income)</i>		9,100.00
<i>Re-Recognition/Proceesing Fee Prvt School</i>		60,500.00
<i>Re-Recognition / Proceesing Fees Pvt Colleges</i>		4,48,708.00
<i>Revolution Fees</i>		9,12,500.00
<i>Transfer Certificate Fees</i>		31,840.00
<i>Tution Fees</i>		87,89,670.00
<i>Verification</i>		96,900.00
<b>FARM RECEIPTS</b>		<b>20,47,560.00</b>
<i>Sale of Cotton Lint</i>		9,56,452.00
<i>Sale of Fodder</i>		28,000.00
<i>Sale of Other Farm Produce</i>		10,26,456.00
<i>Sale Of Sugarcane</i>		36,652.00
<b>GENERAL REVENUE RECEIPTS</b>		<b>84,59,848.00</b>
<i>Application Forms</i>		4,700.00
<i>Bank Interest Received</i>		56,44,599.00
<i>Institutional Charges ( Income)</i>		1,36,596.00
<i>Insurance Claim (Receipt)</i>		306.00
<i>Other General Receipts</i>		12,35,473.00
<i>Rent of Buildings</i>		8,64,374.00
<i>Rest House Charges</i>		3,74,502.00
<i>Sale of Publication &amp; Written Articles</i>		13,740.00
<i>Sale of Tender Forms</i>		94,314.00
<i>University Library Receipts</i>		80,964.00
<b>Carried Over</b>		<b>14,11,27,994.50</b>

continued ...

**MAU 2018 19**  
**REVENUE INCOME**  
 Group Summary  
 1-Apr-2018 to 31-Mar-2019

Page 1

Particulars	Closing Balance	
	Debit	Credit
ANIMAL HUSBANDRY RECEIPTS		11,72,762.00
CAPITAL RECEIPTS		8,85,060.00
EDUCATIONAL RECEIPTS		12,85,62,764.50
FARM RECEIPTS		20,47,560.00
GENERAL REVENUE RECEIPTS		84,59,848.00
HORTICULTURE RECEIPT		27,18,070.00
SEED RECEIPTS		1,05,000.00
Grand Total		14,39,51,064.50

  
**Assistant Comptroller**  
 Vasant Naik Marathwada Krishi Vidyapeeth,  
 Parbhani  


MAU 2018 19  
 REVENUE INCOME Group Summary : 1-Apr-2018 to 31-Mar-2019

Page 2

Particulars	Closing Balance	
	Debit	Credit
<b>Brought Forward</b>		<b>14,11,27,994.50</b>
<i>Water Tax Received</i>		10,280.00
<b>HORTICULTURE RECEIPT</b>		<b>27,18,070.00</b>
<i>Sale of Horticulture Produce</i>		11,74,350.00
<i>Sale of Plants / Nursery</i>		15,43,720.00
<b>SEED RECEIPTS</b>		<b>1,05,000.00</b>
<i>Sale of Seed</i>		10,800.00
<i>Sale of Seedling</i>		94,200.00
Grand Total		14,39,51,064.50

  
**Assistant Comptroller**  
 Vasant Naik Marathwada Krishi Vidyapeeth,  
 Parbhani  


MAU 2018 19

Expenses

Group Summary

1-Apr-2018 to 31-Mar-2019

Page 1

Particulars	Closing Balance	
	Debit	Credit
<b>Contingency</b>	<b>45,53,10,785.39</b>	<b>59,150.00</b>
HOSPITALITY EXPENSES	22,21,444.00	
MAINTAINCAE	3,54,13,681.01	
MATERIAL & SUPPLIERS	2,59,47,832.30	
MOTOR VEHICLES ( FUNCTIONAL)	1,24,83,010.47	
OFFICE EXPENSES RECURRING	14,39,16,646.80	59,150.00
PROFESSIONAL & SPECIAL SERVICES	20,75,86,287.00	
PUBLICATION	42,229.00	
RENT , RATE & TAXES	32,33,154.81	
STIPEND & SCHOLARSHIP	2,44,66,500.00	
<b>PENSION &amp; GRATUITY</b>	<b>61,83,76,424.00</b>	
Basic Pension	18,23,48,253.00	
Commutation of Pension	1,66,94,563.00	
Encashment of Leave	1,44,32,953.00	
Gratuity	1,04,98,803.00	
Pension Arrears.	5,45,18,313.00	
Pension Releif	33,98,83,539.00	
<b>SALARIES</b>	<b>98,38,34,121.88</b>	
CLA & Other Allowance	32,63,718.00	
Contratual Salary	1,34,71,744.18	
Conveyance Allowance	99,88,848.00	
Dearness Allowance	54,98,23,436.00	
Grade Pay	6,90,23,250.00	
House Rent Allowance	3,32,54,478.70	
Medical Reimbursement	88,09,532.00	
Over Time	6,60,040.00	
Pay of Establishment	14,93,97,879.00	
Pay of Officers	14,54,78,043.00	
Washing Allowance	6,63,153.00	
<b>TRAVEL EXPENSES</b>	<b>46,82,565.00</b>	
T.A. TO Meeting Member	4,170.00	
T.A. to Staff Member	46,78,395.00	
<b>WAGES &amp; FIELD OPERATION</b>	<b>46,66,448.00</b>	
Field Operation	45,46,687.00	
Labour Wages	1,19,761.00	
Round Off	1,527.94	
<b>Grand Total</b>	<b>2,06,68,71,872.21</b>	<b>59,150.00</b>

  
**Asst. Comptroller**  
 Vasant Naik Marathwada Wistar Wajapur  
 Parbhani

## University Engineer

S.No.	Name of work	Construction Year	Remarks
1	Proposed agriculture college building situated at Golegaon Tq. Aundha Dist. Hingoli for Vasantao Naik Marathwada Agricultural University, Parbhani	2015-16	Work in progress
2	Proposed water supply scheme at Agriculture Research Centre, Badnapur Tq. Badnapur Dist. Jalna	2018-19	Work completed



Organization of  
World Soil Health Day  
in presence of  
Dr. Ashok Dhawan, Hon. Vice-Chancellor  
Dr. Rahul Patil, MLA, Parbhani,  
Dr. V.D. Patil, DI & Dean, Dr. Syed Ismail

Agriculture Exhibition at  
NARP, Aurangabad



Felicitation of Shri. Rambhau Ragad  
of village Ujalamba (NICRA Village)  
as a **Best Farmer**

Agriculture Extension Programme  
Action Plan Meeting



## GLIMPSES



Dr. Ashok Dhawan, Vice-Chancellor, Dr. Peter Carberry, Director General, ICRISAT, Hyderabad, Dr. D.P. Waskar, Director of Research, Dr. K.P. Sharma, Dr. Ashok Kumar, Dr. S.P. Mhetre during launching of Sorghum - Parbhani Shakti



Dr. D.P. Waskar, Director of Research, Dr. Vilas Kharche, Director Research, Dr. PDKV, Akola, Shri. Suresh Pundkar, Mahabeej, Akola, Dr. K.S. Baig at cotton NHH-44 Bt seed production plot at Gujrat



Dr. Ashok Dhawan, Vice-Chancellor, Dr. D.P. Waskar, Director of Research, Shri. Omprakash Deshmukh, MD, Shri. Suresh Pundkar, Mahabeej, Akola at cotton NHH-44 Bt demonstration plot



**Vasant Rao Naik Marathwada Krishi Vidyapeeth  
Parbhani - 431 402**



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