



KRUSHI VISHWA

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यस्यामापः परिचराः समवीरहोरात्र त्रप्रमादं क्षरन्ति ।
सा वो भूमि भूरिधारा पयो दुहामथो उक्षतु वर्चसा ॥

Our motherland with vast resources, served devotedly day and night by patient, untiring, dedicated, unerring and selfless workers, amay grant us abundant supply of milk and other nutritious food and increase our prowess.

Atharva Veda, Chapter 12, Section 1, Mantar 9

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Nature provides us with everything we need. Of this, it is a matter of justice: to guarantee that all human beings can benefit from what nature has to offer. Further, we need to use holistic approaches - science must be humanistic and humanists need to understand science.

prof. M. S. Swaminathan



The annual convocation is an auspicious occasion of an educational university when the successful graduates and post – graduates receive their certificates and blessings in person from the Governor of the State and the Chancellor of the University. The third convocation of Junagadh Agricultural University was held on February 27, 2008. Hon. Governor and Chancellor Shri Nawal Kishore Sharmaji presided over the function. Dr. S. P. Tiwari, Deputy Director General (Education) ICAR, New Delhi was the Chief Guest and Shri Dharmabandhuji of Shri Vaidik Mission Trust, Pransla was the Guest of Honour in the function.

Total 29 gold plated silver Medals were conferred to outstanding and promising students. Kum. Madhubala, a student of College of Agriculture received sensational applause as she bagged 11 gold medals for her brilliant performance in different subjects.

H. E. Shri Nawalkishor Sharmaji in his presidential address blessed the successful students and said that an educated person should exhibit refinement in character and responsibility to contribute to the fellow – beings in whatever capacity one can do. Agriculture is the main stream in Indian economy accounting for about 20 percent of GDP and around 60 percent of the population derives their livelihood from agriculture. He advised the students to emulate the great men like Mahatma Gandhiji and Shri Sardar Patel.

Dr. B. K. Kikani, the first and founder Vice Chancellor of Junagadh Agricultural University gave an inspiring and informative welcome address to the gathering. While congratulating the Successful students, he said that students are the hidden treasure of knowledge and skill. Their potentialities should be discovered and utilized in nation building



process. He informed that since the establishment of JAU, the University is progressing in a faster rate and making notable developments in the fields of education, research and extension education. He informed that since the inception of Agriculture College in 1960, 3396 B.Sc. (Agri), 894 M.Sc. (Agri) and 178 Ph. D. students, College of Agricultural Engineering & Technology in 1984, 512 B.Tech, 72 M. Tech degrees and College of Fisheries in 1991, 184 students have received B.F. Sc. degrees.

Dr. S. P. Tiwari, the chief Guest in his convocation address said that there is a tremendous scope for entrepreneurship in agriculture. He stated that a real student is one whose self – motivated, undergoes continuous self – revival and becomes a lifelong learner. He advised the students to make their lives meaningful because a meaningful life is always better than a mere successful life. “He asked the students to increase the productivity and production of agricultural systems in order to enhance overall farm prosperity.”



Winners of Gold Medals (3rd convocation, JAU) in different faculties.

Sr. No.	Gold Medal	Degree	Faculty	Name of the Student
1	Chancellor's Gold Medal	Post graduate studies	Agriculture	Saini Kunal Mhendrapalsinh
2	Chancellor's Gold Medal	Post graduate Studies	Agri. Engg. Technology	Karkar Jigneshkumar Bhikhalal
3	Vice Chancellor's Gold Medal	B.Sc. (Agri.)	Agriculture	Dholaria Ashokkumar Vrujlal
4	Vice Chancellor's Gold Medal	B.Tech (Agri. Engg.)	Agri. Engg.	Khunt Sanjay Kumar Madhubhai
5	Vice Chancellor's Gold Medal	B.F.Sc.	Fisheries	Chudasama Bharat Kumar Govindji



Kum. Madhubala bagged 11 gold medals for securing highest OGPA in B.Sc. (Agri.) and highest GPA in Agri. Economics, Agri. Entomology, Plant Breeding, Plant Physiology Agronomy and Plant Protection group subjects.



Sr. No.	Name of the Sub. committee	Num. of recommendations
1	Plant Breeding & Genetics (varieties released)	04
2	Natural Resource Management	11
3	Horticulture & Agro Forestry	05
4	Plant Protection	08
5	Basic Science	01
6	Animal Science & Fisheries	03
7	Agricultural Eng.	05
	Total	37

New Varieties and Recommendations

The scientists of Junagadh Agricultural University have put their sincere efforts to fulfill the farmer's demands and aspirations. Their sincere efforts contributed to evolve four new varieties released for cultivation, 37 recommendations for farmers are summarized in table given herein.

Four new varieties in four crops were recommended for farmers during the year 2007.

Pearl millet :

The hybrid GHB 538 is recommended for summer / pre-Rabi growing areas of North Gujarat and Saurashtra regions respectively. It is an early maturing and thermo in sensitive and resistant to downey mildew. The average yield potential is 50 Q/ha.



Castor (GC-3) :

The variety is recommended for the farmers of entire Gujarat because of higher yield capacity of 23.40 Q/ha and high level of Fusarium wilt resistance under sick plot.



Shri Narendra Modi
Chief Minister
Inaugurating the
KVK Building at Amreli



Shri Dilipbhai Sanghani
Minister of Agriculture
Inaugurating Poly House
at JAU Junagadh

NEW FINDINGS FOR FARMERS

Cumin :

For effective and economical management of sucking pests in Cumin, the farmers of South Saurashtra Agro Climatic Zone are advised to apply seed treatment with Thiamethoxam 70% WS @ 4.2 g/kg seed (ICBR 1:9.22) or Imidacloprid 70% WS @ 10g/kg seed (ICBR 1:2.88)



Tomato :

For higher number of healthy seedling along with effective management of whitefly and leaf miner attacking the tomato seedling nursery, the farmers of South Saurashtra Agro Climatic Zone are advised to apply seed treatment with Thiamethoxam 70% WS @ 4.2 g/kg seed or Imidacloprid 70% WS 7.5g/kg seed.



Fenugreek :

Farmers of south Saurashtra Agro-Climatic Zone are advised to

start the sowing of fenugreek in 3rd or 4th week of October for maximum yield and minimum infestation of powdery mildew disease.



For effective and economical management of jassid in fenugreek, farmers of South Saurashtra region are advised to treat the seed with thiamethoxam 70 WS @ 2.8 gm/kg seed (CBR 1:2.12).

Pearl millet :

The Pearl millet hybrids such as GHB - 719 (early maturing), GHB - 744 (medium maturing), GHB - 732 (medium late maturing). are released for kharif Cultivation in Gujarat.



The farmers of North Saurashtra Agro-climatic Zone (AES-X) growing hybrid pearl millet (GHB-558) in summer are advised to give 13 irrigations each of 40 mm depth at 6-7 days interval for obtaining higher yield and net return. Under limited water

availability, they are advised to give 11 irrigations each of 40 mm depth at 7-8 days interval.

The farmers of North Saurashtra Agro-climatic Zone growing kharif bajra (var. GHB - 558) on soil deficient in available Fe and Zn are advised to follow soil application of FeSO_4 @ 15 kg/ha ZnSO_4 @ 8 kg/ha or micronutrient mixture grade having Fe-2%, Mn-0.5%, Zn-5%, Cu-0.2% and B-0.5% equivalent of Govt. notified Grade-V as soil application @ 20kg/ha at the time of sowing to get higher yield and net return. Alternatively, farmers are advised to spray 1% foliar grade of multi-micronutrients having Fe 4%, Mn 1%, Zn 6%, Cu 0.5% and B 0.5% equivalent of Govt. notified Grade-IV (for Fe and Zn deficiency) at 20, 30 and 40 DAS.

OKRA :

O K R A -
GUJARAT OKRA
HYBRID OKRA-2

Okra JNDOH - 02-2 hybrid has been identified by variety identification committee for zone II, V, VI, VII and VIII, because of Its better performances than Parbhani Kranti (RC) and Pusa Sawani (SC). It has yielded 139.37 kg/ha by a margin of 41.33% (Parbhani kranti) and 54% (Pusa sawani). The pods are smooth, green, tender and attractive in color.



Groundnut :

For effective and economical management of white grubs in kharif Groundnut, farmers of South Saurashtra Agroclimatic Zone are advised to apply Seed treatment of chlorpyrifos 20 EC 25 ml/kg Seed



or soil application of phorate 10 g@ 25 kg/ha as pre-sowing furrow application or drenching of chlorpyrifos 20 EC 0.1% (50 ml/ 10 liter of water) in Plant row after 15 days of germination of soil application of castor cake @ 500kg/ ha as pre-sowing furrow application.

The farmers of South Saurashtra Agro-climatic Zone harvesting wheat through combined harvester are advised to incorporate wheat straw in soil using rotavator for better weed control and net return along with maintenance of soil fertility in kharif groundnut.

The farmers of the coastal area of South Saurashtra Agro-climatic Zone growing kharif groundnut on saline-sodic soil are advised to apply gypsum @ 5 t/ha (50% of GR) besides recommended dose of fertilizer for obtaining higher net return.

Groundnut-Castor relay crop :

Farmers of South Saurashtra Agro-climatic Zone are advised to sow groundnut with castor as relay crop (Row ratio of 2:1) along with soil application of carbofuran 3 G @ 1 kg a.i./ha (Furadan 3G @ 33 kg/ha) to reduce the root knot nematode disease (*Meloidogyne arenaria*) and to get higher yield (CBR 1:2.35)



Legumes :

The farmers of North Saurashtra Agro-climatic Zone applying enriched compost @ 6 t/ha or vermicompost @ 2 t/ha need not to apply inorganic fertilizers in legumes.

Onion (kharif) :

The farmers of South Saurashtra Agro-climatic Zone growing kharif onion (Agri Found

Dark Red) are recommended to apply 75:50:25 kg NPK/ha. Of which 50 per cent nitrogen and full doses of phosphorus and potash should be applied as basal and remaining 50 per cent nitrogen should be top dressed one month after transplanting for getting higher yield.



Garlic :

The farmers of North Saurashtra Agro-climatic Zone (AES-X) growing garlic (GG-3) in rabi season are advised to apply oxyflurofen @ 0.12 k g / h a o r pendimethalin @ 0.6 kg/ha as pre emergence + one hand weeding at 40 DAS. If laborers are available, the crop should be kept weed free through hand weeding for obtaining higher yield of garlic and additional net return.



Farmers of South Saurashtra Agro-climatic Zone growing garlic are advised to apply three sprays of thiophanate methyl 70% WP @ 0.05 % (CBR 1:7.85) or hexaconazole 5% EC @ 0.008% (CBR 1:6.48) at 10 days interval starting from initiation of powdery mildew (*Leveillula taurica*) disease during rabi season for its economic and effective management. However, those who are interested in organic farming can use wet table sulphur 80 WP @ 0.30% (ICBR 1:8.67).

Papaya :

Papaya growers of Saurashtra region are advised that the fresh harvested fruits of papaya cv. Madhubindu should be dip for five minutes in the solution of GA3 100 ppm (100 mg/lit.) followed by packing in perforated polyethylene

bag which enhanced shelf life, marketability and quality of fruits up to six days of storage.

Kagzi lime :

Farmers of Saurashtra region growing acid lime cv Kagzi lime are advised to apply 80 per cent recommended dose of fertilizers for more production and higher income from adult tree. Out of which nitrogen in form of urea 2.6 kg per plant in 12 equal splits should be applied at monthly intervals thorough drip irrigation, while phosphorus and potash should be applied as soil application in two splits (SSP-3.75 kg & MOP-2.00 kg/tree) in June and October. The drip system should be operated at 0.8 PEF for 3.00 hours daily during October to February and 5.00 hours from March to onward with 4 drippers, each having 4 lit. discharge per hour (1 kg/cm² pressure) keeping dripper 1.0 meter away from trunk of lime plant to save 33.19 per cent irrigation water.



Sapota :

Sapota (cv. Kalipatti) growers of South Saurashtra region are advised to apply 72 litres water / tree / day (0.6 PEF) in summer (March to May) and 52 liters water/tree/day in winter (October to February) to adult tree (15 to 20 years old) through drip irrigation system which can save up to 32.6 per cent of water without reduction in yield. The drip system should be operated 4 hours and 30 minutes in summer and 3 hours 15 minutes in winter, with 1 kg / sq.cm pressure keeping four drippers / tree having capacity of 4 LPH. The drippers should be kept one meter away from the trunk of the tree.

Sesame :

Farmers of North Saurashtra

Agro-climatic Zone growing sesame are advised to take plant protection measures from 28 days after sowing (DAS)



for the control of leaf roller and 42 DAS for gall fly. Moreover, the farmers are further advised to take care that the leaf roller infestation is found more when there is more rainfall/rainy days and gall fly infestation is more when there is low rain / dry period.

Chickpea :

For effective and economic management of *Helicoverpa armigera* in chickpea, farmers of South Saurashtra Agro-climatic Zone are advised to spray fenvalerate 0.02% at 50 per cent flowering followed by second spray of endosulfan 0.07% at 50 per cent pod formation (CBR 1:9.85).

Farmers of South Saurashtra Agro-climatic Zone are advised to apply phosphate solubilizing microorganism either PBA-13 (*Bacillus coagulans*) (CBR 1:28.79) or PBA – 20 (*Aspergillus* spp.) (CBR 1:22.95) or PBA – 10 (*B. coagulans*) (CBR 1:21.60) (108 viable cells/g) as seed treatment @ 30 g/kg seed in gram crop in place of phosphatic fertilizer.

STUDENTS ACTIVITIES

Inter collegiate weight lifting tournament of JAU was organized



on 20th October, 2007 in which 30 students Participated.

Inter collegiate debate and essay competitions were organized on 20th October 2007, in which 18

and 12 students participated, respectively.



Inter collegiate cultural competition and inter Agricultura

l school Athletic and sports meet was organized on 6th February, 2008 and 12 to 13, February, 2008, respectively.

A training programme for leadership development among the students as well as for the staff members was organized during 20 to 25 January, 2008. Working of the individuals of JAU to Increase the working efficiency. T h e training



was imparted by the experts from International School for Public Leadership, Ahmedabad.

A spiritual lecture on “Art to Live Life” was delivered by Doctor Swami on 30th October 2007.

WORKSHOP ORGANIZED:

The Department of Agri. Botany and Plant Breeding organized a one week workshop series on different topics like (1) Personality Development, (2) Presentation skills, building confidence and Career Development, (3) Genes to Genomes in Plant Science and (4) Women in Science from 1st to 8th March 2008, in Collaboration with Mr. Kunal Saini, a Ph. D. Student Division of Plant Science, University of Nottingham, U.K. The Workshop series was inaugurated by Dr. R. L. Savalia I/C Principal, College of Agriculture, JAU, Junagadh. A total number of 156 post graduate and under graduate

students participated and benefited from the workshop. Ms. Hina Dalal, a student of Bioinformatics from Panjab University, Chandigarh, delivered a lucid lecture on Bioinformatics.

Litchi flowering

Litchi is a subtropical fruit crop adapted to the warm subtropical region requires brief, cool dry, frost – free winter and long, hot summer with high rainfall and humidity. Cool and dry winter is essential to reduce growth prior to flowering. The 30 – year old lichi trees at Madhadibag Farm of Junagdh Agricultural University at Junagadh flowered for the first time this year, particularly in the north facing side of the tree. This may be attributed to very cool winter this year.



Publication

Dr. P. K. Kapadiya, Associate Res. Scientist published two folders: 1. Hybrid Naliyerini Vaiganik Kheti Padhati and 2. Dariya kinaranu mita Ful chickku.

BOOKS PUBLISHED

1. “Glossary of Biochemistry and Biotechnology”

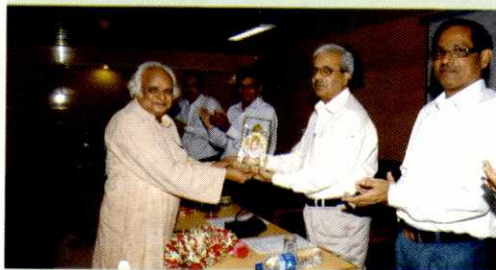
Authors : S. V. Patel, U.K. Kandoliya, M. K. Mandavia, J. J. Druve, D. N. Vakharia, B. A. Golakia

2. “A Glossary of Soil Sciences” by Authors : S. V. Patel, H. P. Gajera, S. G. Savalia, B. A. Golakia

3. Remote Sensing Techniques in Agriculture : D. D.Sahu, R. M. Sonlanki

VISITORS

1. Dr. D. M. Hegde, Project Director (oil seeds), Hydrabad on 8-2-2008
2. Dr. R. M. Bhatt, Principal Scientist, IIHR, Hessarghatta, Bangalore.



3. Dr. N. K. Srinivasa Rao, Principal Scientist, IIHR, Hessarghatta, Bangalore.
4. Dr. G. C. Tiwari, Additional Director General (Education), ICAR, New Delhi.
5. Dr. R.P.S. Ahlawat Vice Chancellor, NAU, Navsari.
6. Dr. N. B. Singh, Principal Investigator (Pigeon pea Agronomy) and Head, Division of Pulses Research, Kanpur on 29-12-2007.
7. Dr. H. P. Singh, A.D.G. (Horti), ICAR, New Delhi on 24-12-2007
8. A team of experts from National Board of Accreditation, All India Council of Technical Education, New Delhi, visited the College of Agricultural Engineering and Technology to accredit Agricultural Engineering under graduate programme and some departments of Agricultural Engineering & Technology.

Retiring Scientists

Dr. V. K. Poshia, Research Scientist (Chickpea) retired on 31st October, 2007 after a long service period of 35 years.

KVK Activities

Sr. No.	Name of KVK	No. of Training Programme		No. of Farmers	
		On Campus	Off Campus	Male	Female
1	Nana Kandhasar (Surendranagar)	10	11	309	89
2	Targhadia (Rajkot)	5	5	196	-
3	Amreli	6	8	336	47

Seminars / Workshop / Conferences / Training / Symposium

Sr. No.	TOPIC	Participant
1	Prospects and Retrospect of Arid legumes in Indian Agriculture at S. D. Agricultural University, Sardar Krushinagar. India Arid Legume Society Chapter on 24th November, 2007.	Dr. M.S. Pithia and Dr. H.R. Dhameliya
2	Legumes for Ecological Sustainability : Emerging challenges Opportunities" organized by India Society of Pulses Research and Development and Indian Institute of Pulses Research and ICAR during 3 - 5 November, 2007.	Dr. B.M. Patoliya
3	Advances in Protected Cultivation of Vegetables at Center for Protected Cultivation Technology, IARI, New Delhi during 10 to 21 December, 07.	Dr. K.V. Kalathiya
4	Use of Biotechnological Tools in Crop Improvement.at Center of Advanced Studies in Genetics and Plant Breeding, PAU, Ludhiana during on 28 Nov. to 18 Dec. 07.	Dr. D.R. Mehta
5	Winter School on Organic farming in Rainfed and Tribal areas at Central Research Institute for Dryland Agriculture, Hyderabad during 1 - 21 November, 2007.	Dr. P.M. Vaghasia
6	Hybrid Seed Prodncion in Vegetable Crops at Indian Institute of Vegetable Research, Varanasi during on 2 to 24 Dec. 2007.	Dr. T.R. Ahlawat
7	Application of Molecular Tools in Crop Improvement at Sugarcane Breeding	Dr. R.B. Madariya

Sr. No.	TOPIC	Participant
	Institute, Coimbatore during 11th September to 1st October, 2007.	
8	Recent Advances in Crop Improvement at PAU, Ludhiana during 2 to 25 Feb. 2008.	Prof. M.G. Valu
9	Refresher Course on Organic Pest Control at Annamalai University, Tamil Nadu from 21st Jan. to 10th Feb. 2008.	Prof. V. H. Ghelani and Prof. G.. M. Parmar
10	National Workshop on Capacity Building Programme on Intellectual Property Protection and Technology Licensing in Agriculture held at Trichur, 18-20 Feb. 2008.	Dr. C. J. Dangaria Dr. I. U. Dhruj
11	National Seminar on Micro and Secondary Nutrients for Balanced Fertilization and food Security Organized by Indian Institute of Soil Science, Bhopal at AAU, Anand from 11-12 March 2008.	Ms. Asha C. Mehta, Dr. H. R. Khafi, Dr. K. C. Patel, Dr. R. M. Desai.
12	Water Management in Agriculture at ANGRAU, Hyd. from 30 Jan. to 19 Feb. 08	Dr. P. K. Chovatia
13	Organic - Pest control at Annamalai University, Annmalai Tamil Nadu from 21 Jan. to 10 Feb. 2008.	Dr. D. S. Kelaiya
14	Vocational Entereprenership for sustainable livelyhood of Agricultural practioners at Director of Extension Education, Maharana Pratap University and Agriculture Technology, Udaipur (Rajasthan) from 23 Jan. to 12 Feb. 2008.	Mr. M. K. Bariya
15	Training on leadership at JAU, Junagadh from 18 to 26 Feb. 2008.	Dr. N. S. Joshi
16	Recent Advances in Crop Improvement at Center of Advanced Studies in Genetics and Plant Breeding Department of Plant Breeding, Genetics and Biotechnology. Panjab Agricultural University, Ludhiana from 5 to 28 Feb. 2008.	Dr. R. H. Kavani
17	Canal water management for sustainable agricultural production, held at Water Technology Centre, Eastern region, Bhubaneswar (Orissa). from 18-23 Feb. 2008.	Dr. N. K. Gontia
18	Land drainage for reclamation of water logged and saline lands, Organized by WALMI, Anand from 25 Feb. to 1 March 2008.	Dr. M. M. Trivedi
19	Management of water logged, saline and alkaline soil in irrigation commands, held at Water Technology Centre, Eastern region, Bhubaneshwar from 28 jan. - 2 Feb. 2008.	Dr. P. G. Vadher

Events



Interaction of VC with KVK Staff of JAU on Centre of Communication



Brahma Kumari Ushaben Speaking on Various ways of relieving from stress



Prof. M. C. Varshneya VC of AAU Inaugurating the statue of Lord Balaram

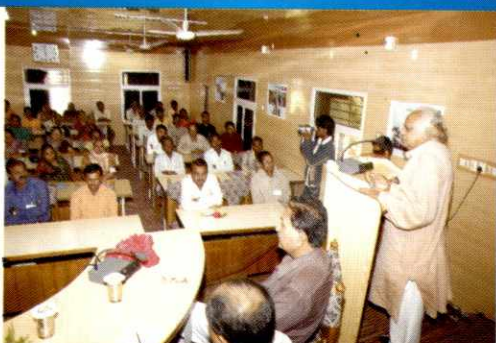
Research projects

Sr. No.	Title of project	Sponsoring organization	Principal Investigator and co-Investigator	Amount (Rs. in Lakhs)
1	Demonstration of recommended IPM/INM technologies for management of coconut eriophyid mite affected areas of Gujarat	National Horticulture Mission, Department of Horticulture, Gujarat state, Gandhinagar.	Dr. M. N. Kapadia, Professor and Head, Dept. of Entomology, JAU, Junagadh.	38.00
2	Testing bio-efficacy and phyto toxicity of sobmon 300 od against gram pod borer and sucking pest in chickpea.	Bayer Crop Science, Ahmedabad.	Dr. B. R. Raghvani, Associate Res. Scientist (Entomology) and Dr. M. S. Pithia, I/C Research Scientist (Check pea), JAU, Junagadh.	01.60
3	Facilitation Centres for medicinal Plants	National Medicinal Plant Board, New Delhi.	Dr. V. P. Chavatia, Professor and Head (PI) Dr. H. L. Dhaduk, Asstt. Res. Scientist (Co.PI) Dept. of Botany, JAU, Junagadh. Dept of Plant Pathology, JAU, Junagadh	30.00

Events



Shri Nawal Kishore Sharma, H.E.
Inaugurating girls Hostel Building



Dr. B. K. Kikani, Vice Chancellor
Addressing Participants of Farmers'
Training Course Sponsored by AKRSP, Malia.



Vice Chancellor of four Agricultural
Universities of Gujarat with Dr. S. P. Tiwari,
Inaugurating the statue of Lord Balaram



Dr. S. P. Tiwari, DDG (Edu.) ICAR
Garlanding statue of Subhas chandra Bose



Dr. RPS Ahlawat, VC of NAU garlanding
the statue of Sardar Vallabhabhai Patel

BOOK-POST

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