



NAVSARI AGRICULTURAL UNIVERSITY

ACHIVEMENTS
Department of Agronomy
N. M. College of Agriculture
Navsari Agricultural University, Navsari (Gujarat)



विद्या ऽर्द्धम गोचर्या

A. Awards won by faculties (2016-17 to 2023-24)

SN	Award	Name of organization	Awardees	Year
1.	Best Oral Presentation award	National Conference on Advances in Global Research in Agriculture and Technology, Agra (U. P.)	Dr. N. N. Gudhade	2017
2.	Outstanding Faculty Award	Venus International Foundation, Chennai,	Dr. N. N. Gudhade	2018
3.	Best oral paper presentation	International Conference on Food and Agriculture, Dhanbad, Jharkhand,	Dr. L. K. Arvadia	2018
4.	Appreciation Certificate	XXI Biennial National Symposium, Udaipur (Rajasthan)	Dr. N. N. Gudhade	2018
5.	Best photograph award in 4R nutrient stewardship	International Plant Nutrition Institute, Georgia, USA	Dr. N. N. Gudhade	2019
6.	Young Achiever Award	Society for the Advancement of Human and Nature, Y. S. Parmar University of Horticulture and Forestry, Solan, (H. P.)	Dr. N. N. Gudhade	2019
7.	Sadvichar Parivar Award	The Gujarat Association for Agricultural Sciences, Ahmedabad	Dr. V. P. Usadadiya and Dr. P. B. Patel	2019
8.	Second Best Oral Presentation Award	National Seminar on Biochemical and Molecular Biology for Nutritional Security and Food Safety, NAU, Navsari	Dr. N. N. Gudhade	2019
9.	Third Best Oral Presentation Award	International Conference on Engineering Biotic Interactions in the Light of Social Applicability,	Dr. N. N. Gudhade	2020
10.	Best centre of AICRP on IFS under On-Station	ICAR-IIFSR, Modipuram, Meerut	Arvadiya L. K., Gudadhe N. N. and Thanki J. D.	2020
11.	Best Agronomist Award	Agricultural Technology Development society, Ghaziabad	Dr. N. M. Thesiya	2021

B. Post graduate/Ph.D. thesis

Sr. No.	Period	No. of P.G. students awarded degree		
		M.Sc.(Agri.)	Ph.D.	Total
1.	1970 to 1975	11	0	11
2.	1976 to 1980	10	0	10
3.	1981 to 1985	17	3	20
4.	1986 to 1990	44	3	47
5.	1991 to 1995	26	15	41
6.	1996 to 2000	18	10	28
7.	2001 to 2005	27	4	31
8.	2006 to 2010	44	10	54
9.	2011-2015	55	14	69
10.	2016-2021	129	26	155
11.	2022-2025	33	30	63
TOTAL		419	116	535

C. Research recommendations (2016-17 to 2023-24)

Year	Recommendations
2019-20	1 Maize: The farmers of South Gujarat Heavy Rainfall Agro-climatic Zone are recommended to keep the <i>rabi</i> maize field weed free from 20 to 50 days after sowing for getting higher yield and net return.
	2 Fodder sorghum: The farmers of South Gujarat Heavy Rainfall Agro-climatic Zone growing fodder sorghum (GFS 5) are recommended to treat the seed with <i>Azospirillum</i> + PSB (each 10 ml/kg seed) and apply 80 kg N/ha(40 kg/ha as basal and 40 kg/ha at 30 DAS) in addition to basal application of recommended dose of phosphorus (40 kg P ₂ O ₅ /ha) and FYM (5 t/ha) for getting higher yield and net return.
	2 Scientific Information: Phylloplane microflora associated with diseased leaves of tomato and banana are more in number compared to healthy leaves and are a natural source of eco-friendly bioagents which may control plant pathogens. This investigation confirms that leaf surface mycobiotasuch as <i>Trichoderma</i> species found to be effective antagonists against <i>Alternaria solani</i> and <i>Fusarium</i> sp. of tomato and <i>Colletotrichum</i> sp. of banana as it is having mycoparasitic ability.
	3 Farmers Recommendation : Sugarcane growers of South Gujarat heavy rainfall zone AES-III are recommended to treat the setts of sugarcane before planting with the liquid Acetobacter, PSB and KMB (Minimum Cf _u 1 × 10 ⁸) for sett treatment 300 ml/ha, by mixing together for minimum 30 minutes before sowing, soil applications of each 2000 ml/ha two times; 125:62.5:62.5 NPK to realize higher cane yield and save 50 per cent chemical nitrogen, phosphorus and potash fertilizers and simultaneously saving 50 per cent. (ICBR 1:1.22).
4 Scientific Information: Five times higher concentrations (200ml prepared from 1000ml	

	normal biofertilizers) of phosphate solubilizing bacteria (<i>Bacillus megatarium</i>) and lyophilized Phosphate solubilizing bacteria (5gm prepared from 1000ml of biofertilizer) can be used as a new formulation of biofertilizer.								
	5 Scientific Information : <i>Conninghemella</i> sp. NAUB-5 fungal isolate can be used for the preparation of biofertilizers to convert unavailable and fixed phosphorus into available for the plant in the soil for the crop growth.								
2020-21	1 Linseed:The farmers of South Gujarat Heavy Rainfall Agro-climatic Zone growing linseed are recommended to apply 75 kg N/ha, 50 kg P ₂ O ₅ /ha as DAP and 20 kg S/ha as elemental sulphur (full dose of sulphur one week before sowing, half dose of N and full dose of P ₂ O ₅ at sowing and remaining half dose of N at 30 DAS) for getting higher yield and net return.								
	2 Maize:The farmers of South Gujarat Heavy Rainfall Agro-climatic Zone growing <i>rabi</i> maize are recommended to apply atrazine 1.0 kg/ha as pre-emergence <i>fb</i> one interculturing at 40 DAS or carry out two interculturing along with hand weeding at 20 and 40 DAS for effective weed control and to obtain higher yield and net income.								
	3 Fodder oat:The farmers of South Gujarat Heavy Rainfall Agro-climatic Zone growing fodder oat are recommended to adopt cross sowing method at 30 cm x 30 cm spacing (using 1.5 times seed rate) for getting higher yield and net return.								
	4 Fodder maize intercropping:The farmers of South Gujarat Heavy Rainfall Agro-climatic Zone growing summer fodder maize are recommended to adopt fodder maize + fodder cowpea intercropping in 1:1 (maize spacing 30 cm) or 2:2 ratio (maize spacing paired row 15-45-15 cm) for getting higher yield and net return.								
	5 Weed management: Application of either pendimethalin @ 1 kg/ha as PE or 2,4-D amine salt 0.5 kg/ha or metsulfuron methyl 4 g/ha as PoE at 30 DAS gave effective weed control with higher yield and net return in fodder oat. Residue analysis of these herbicides was carried out and found below detectable level.								
2021-22	1 Sunnhemp: The sunnhemp seed producing farmers of South Gujarat are recommended to prime the seeds with Rhizobium or PSB or Rhizobium + PSB (1 x 10 ⁸ cfu/ml) each of 10 ml/kg seed in 2 L water for 2 hrs and irrigate the crop immediately after sowing and second irrigation at 30 DAS in <i>rabi</i> season for obtaining higher yield and net return.								
	2 Linseed: The farmers of South Gujarat growing linseed are recommended to carry out interculturing followed by hand weeding at 20 and 40 days after sowing for effective weed management and obtaining economical yield.								
	3 Cropping System: The farmers of South Gujarat are recommended to adopt the following cropping systems for different purposes.								
	<table border="1"> <thead> <tr> <th>Cropping system</th> <th>Purpose</th> </tr> </thead> <tbody> <tr> <td>Rice - Fenugreek (V) - Cluster bean (V) crop sequence</td> <td>Yield and income enhancement</td> </tr> <tr> <td>Rice – Green gram - Pearlmillet crop sequence</td> <td>Improve soil health</td> </tr> <tr> <td>Rice-Indian bean (V) - Sesamum crop sequence</td> <td>Family nutrition</td> </tr> </tbody> </table>	Cropping system	Purpose	Rice - Fenugreek (V) - Cluster bean (V) crop sequence	Yield and income enhancement	Rice – Green gram - Pearlmillet crop sequence	Improve soil health	Rice-Indian bean (V) - Sesamum crop sequence	Family nutrition
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	Rice - Lucerne (continue) crop sequence	Livestock nutrition
2022-23	1	Rice: The farmers of South Gujarat growing long term kharif rice- summer rice crop sequence are recommended to apply 5.0 t Biocompost/ha + 25.0 kg N/ha and 25 kg P ₂ O ₅ /ha as basal, 12.5 N/ha at 25 DAS and 12.5 N/ha at 50 DAS or 1.0 t castor cake/ha + 25.0 kg N/ha and 25 kg P ₂ O ₅ /ha as basal, 12.5 N/ha at 25 DAS and 12.5 N/ha at 50 DAS to kharif and summer rice for getting higher yields, net returns and sustain the soil health.
	2	Pearlmillet: The farmers of south Gujarat growing fodder pearl millet in summer season are recommended to apply bio compost 5.0 t/ha and 125 kg N/ha (62.5 kg N/ha as basal and remaining 62.5 kg N/ha at 30 DAS)with bio- fertilizer (Azotobacter + PSB) as seed treatment forgetting higher yield and net returns with better quality.
	3	Cowpea: The farmers of south Gujarat growing fodder cowpea for seed production during summer season are recommended to apply Bio compost 2.0 t/ha along with 15 kg N/ha and 30 kg P ₂ O ₅ as basalfor getting higher yield and net returns.
2023-24	1	Pearlmillet: The farmers of south Gujarat heavy rainfall zone are recommended to keep the summer pearl millet field weed free up to 40 days after sowing for getting higher yield and net return.
	2	Rice: Higher profitable yield and Zn content increment in kharif rice can be achieved through two foliar spray of PGPR mediated ZnO nanoparticles synthesized using ZnSO ₄ , either at 50 or 100 ppm or rice plant mediated ZnO nanoparticles synthesized using ZnNO ₃ at 100 ppm at tillering and panicle initiation stage.

D. Publications (2016-17 to 2024-25)

Sr. No.	Publications	Total
1	Practical manuals	11
2	Research papers	140
3	Books/booklets	5
4	Folders	4