

## A. Teaching:

### Significant Educational success of UG/PG student at National Level

Year	ARS-NET	JRF	SRF	GATE	OTHERS
2012-2013	01	-			ICAR Ph. D. Entrance Exam (1)
	04	-	1		INSPIRE fellowship (1) University Gold Medal(1)
-	01	-	-		-
2015-2016	05	-	2		-
2016-2017	01	05	1		ICAR Ph. D. Entrance Exam (1)
2017-2018	06	08	-	-	-
2018-2019	06	02	-	-	-
2019-2020	04	02	04	01	-
2020-2021	01	02			



## Student's Awards

Sr. No.	Student Name	Recognition	Year
1.	Nakarani Udit M.	Best Poster Presentation	2017
2.	Shravan kumar	Chancellor's Gold Medal	2018
3.	Lokeshkumar Saini	Kalpitaru Gold Plated silver medal	2018
4.	Neethu T. M.	Best poster presentation award	2018
5.	Neethu T. M.	Best Doctoral Research Presentation	2018
6.	LokeshkumarSaini	Second best oral presentation award	2019
7.	Nakarani Udit M.	Second best oral presentation award	2019
8.	Lokeshkumar Saini	Third best oral presentationaward	2019
9.	Lokeshkumar Saini	Best Poster presentationaward	2019
10.	LokeshkumarSaini	Commendation certificate	2019
11.	Lunagariya Dhara D.	Best Poster Presentationaward.	2019
12.	Lokeshkumar Saini	Best Poster Presentation award.	2019
13.	NakaraniUdit M.	Best Poster Presentationaward.	2019
14.	MistryPritesh S.	Gulabbhai Mehta Gold Plated silverAward	2019
15.	ChuhanAditi R.	Award for best performing participation	2020
16.	Neethu T. M.	Best Doctoral Thesis Award, (GAAS)	2020



## M.Sc.(Agri.)/Ph.D. thesis submitted by the students

Sr. No.	Year	M.Sc. (Agri.)		Ph.D.		Total
		SSAC	Biochem.	SSAC	Biochem.	
1	2004	--	--	1	--	1
2	2005	3	--	--	--	3
3	2006	3	--	3	--	6
4	2007	--	--	1	--	1
5	2008	4	--	1	--	5
6	2009	3	--	2	--	5
7	2010	4	--	1	--	5
8	2011	4	--	--	--	4
9	2012	6	--	1	--	7
10	2013	9	--	1	--	10
11	2014	8	1	2	--	11
12	2015	9	3	5	--	17
13	2016	4	1	3	--	8
14	2017	13	2	3	--	18
15	2018	10	2	1	--	13
16	2019	7	1	1	--	9
17	2020	5	2	2	--	9
18	2021	11	7	2	1	21

## B. Research:

### Research recommendations (2016-17 to 2020-21)

Sr. No.	Title	Recommendations	Year
1.	Effect of different cooking conditions on antioxidant properties of some cucurbit vegetables.	It is informed to scientific community that bitter gourd contains highest antioxidant activity as compared to cucumber, pumpkin, bottle gourd, pointed gourd and spine gourd. Further antioxidant activity was remained maximum at cooking for 7 minutes in microwave (900 w) or 10 minutes in pressure cooker (2 whistles).	2017
2.	Response of different varieties of finger millet (Nagli) to integrated nutrient management under rainfed condition (In collaboration with HMRS-Waghai.).	The farmers of South Gujarat heavy rain fall zone growing finger millet variety GN 5 during kharif season are recommended to fertilize the crop with 75 % of RDF (30:15:00 kg NPK/ha) and vermicompost 2 t/ha for getting higher yield and net return.	2017



## Research recommendations

3.	Response of little millet (Vari) to nitrogen and phosphorus levels under rainfed condition (In collaboration with HMRS-Waghai.).	The farmers of South Gujarat heavy rain fall zone growing little millet (GV 2) during kharifseason are advised to grow the crop with application of 20 kg N/ha and 20 kg P <sub>2</sub> O <sub>5</sub> /ha for getting higher yield and net income.
4.	Studies on different package of practices in Finger millet (Nagli) under rainfed conditions. (Cv.GN-4) (In collaboration with HMRS-Waghai.).	The farmers of South Gujarat Heavy Rainfall Agro-climatic Zone and South Gujarat Zone growing finger millet are recommended to adopt integrated nutrient management system for getting higher yield and net return. Component of Integrated Nutrient Management are: <ul style="list-style-type: none"> <li>• Treat the seed with thirum @ 3-4 g/kg seeds + seedling dipping in bio-fertilizer (Azotobacter) for 30 minutes</li> <li>• Hand weeding.</li> <li>• 30 kg N, 20 kg P<sub>2</sub>O<sub>5</sub> and bio compost 2 t/ha.</li> <li>• Apply Azotobacter 2 kg/ha. + PSB 2 kg/ha. as soil application</li> <li>• Use recommended chemical pesticides for controlling stem borer and blast.</li> </ul>
5.	Screening of pigeon pea genotypes for qualitative characters.	It is informed to scientific community that pigeon pea variety BDN-2 contains high quantity of soluble protein (12.61), calcium (2.88 mg/kg) and magnesium (2.45 g/kg). vaishali has high amount of iron (78.30 mg/kg), Zinc (12.20 mg/kg) and molybdenum (6.02 mg/kg) content. NPK-15-25 variety has high amount of phosphorus (0.73 %), while NPK 15-05, NPK-15-14, GT-1, AGT-2 and BNP-1B have high amount of copper (80.23 mg/kg), potassium (9.86 g/kg), manganese (14.23 mg/kg), boron (98.27 mg/kg) and cobalt (12.333 mg/kg), respectively.
6.	Nutritional and anti-nutritional profiling of different kabuli chick pea (Cicer arietinum L.) genotypes.	It is informed to the scientific community that genotypes NGK-1707 had the highest amount of total protein (25.58 %), Ca (6.20 g/kg) and K (10.25 g/kg). However, NGK-1708 contains highest amount of methionine (0.92 g/16g N) in protein. NG-477 had the lowest anti- nutritional factor like trypsin inhibitors (6.78 TIU/g) which can be used for future breeding programme.
7.	Effect of N, P and K levels on yield and quality of broccoli.	The farmers of south Gujarat heavy rainfall agro-climatic zone intended to grow broccoli during rabi season are recommended to apply 120-60-00 N-P2O5-K2O kg/ha along with bio-compost 5 t/ha for getting better quality of broccoli head and high net return. The full dose of P2O5 and 50 % N should be applied as basal whereas remaining 50 % N should be applied in two equal splits at 25 and 50 days after planting.



**Research recommendations**

8.	Comparison of different digestion methods for analysis of multielement (P, K, FE, MN, ZN, CU) from plant.	Considering cost effectiveness and comparatively higher digestion capability, hot plate based digestion method was found superior over infrared digestion, microwave digestion and block digestion methods for elemental analysis of plant.	2019
9.	Study of starch quality in greater yam ( <i>Dioscorea alata</i> ).	It is informed to the scientific community that greater yam genotypes NGY9, NGY3 and NGY1 had highest resistant starch, refrigeration stability (syneresis %) and starch gel clarity (transmittance %), respectively.	2020
10.	Evaluation of different phosphorus management practices in rabi sorghum-summer green gram cropping sequence under south Gujarat condition (In collaboration with MSRS, NAU, Navsari).	The farmers of south Gujarat heavy rainfall zone following rabi sorghum-summer green gram cropping sequence are recommended to apply 30 kg P <sub>2</sub> O <sub>5</sub> and arbuscularmycorrhizae (3000 IP/g) 250 g/ha (along with bio-compost 5 t/ha and 40 kg N/ha at sowing and 40 kg N/ha at 30 DAS) to sorghum and 15 kg N and 30 kg P <sub>2</sub> O <sub>5</sub> /ha to summer green gram for getting higher yield and net return.	2020

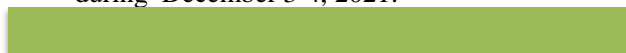


## Analytical services:

Years	Farmers samples				Students samples				Departmental samples			
	Soil		Water		Soil		Plant		Soil		Plant	
	Samples	Parameters	Samples	Parameters	Samples	Parameters	Samples	Parameters	Samples	Parameters	Samples	Parameters
2018	89	719	23	207	586	2517	1454	4500	485	4513	324	1638
2019	92	605	26	234	1290	10357	3553	10649	436	4136	381	1899
2020	153	1223	41	452	244	1063	2318	12993	660	4882	638	2757
2021	205	1810	57	528	902	6465	2333	10548	740	5696	528	2422

## Capacity buildings

1. Two days national seminar on "Biochemical and Molecular Biology Intervention for Nutritional security and Food safety", organized in December 12-13, 2019.
2. Virtual National Seminar on "Advances in Sustainable Management of Natural Resources for Food and Nutritional Security", organized during August 26th to 27th, 2021
3. Capacity Building events for students of Navsari Agricultural University, Navsari to celebrate the "World Soil Day", organized during December 3-4, 2021.



## Other achievements

Sr. No.	Publications	Total
1.	Practical manuals	5
2.	Research papers	113
3.	Books/booklets	2
4.	Folders	1
5.	Book chapters	3
6.	Awards	10
7.	Seminar/workshop/symposia/conferences/attended	87
8.	Winter/summer schools	03
9.	Farmers lecture	21

