

### A. Awards

Sr. No.	Name of award	Year
1	Dr. Ajay V Narwade received Best oral presentation award in the 5 International Conference on “Sustainable Natural Resources Management under Global Climate Change” organized by Soil Conservation Society of India at New Delhi, INDIA during November 07-10, 2023.	2023
2	Dr. Jatinkumar J. Ghadiali received second best oral presentation prize in ISPP West Zonal Seminar on “Innovative Approaches for Sustainable Agriculture Under Climate Change” on December 22-23, 2022 in collaboration with Indian Society for Plant Physiology (ISPP), New Delhi and Department of Plant Physiology, N. M. College of Agriculture, NAU, Navsari.	2022
3	Mr. Vipul G Baldaniya, PG students received SHODH – ScHeme of Developing High Quality Research Scholarship, Education Department, Gujarat.	2019
4	Mr. S Sree Ganesh, PG students received Ph D gold medal.	2019
5	Dr. Samarth R. Patel received second best oral presentation prize in the National Seminar on “Biochemical and Molecular Biology Intervention for Nutritional security and Food safety” during December 12-13, 2019 organised by Department of Soil Science & Agricultural Chemistry, NMCA, NAU, Navsari.	2019
6	Mr. Hiren Patel, PG student awarded third prize in oral presentation for the paper entitled “Effect of organic nitrogen on root architecture of rice seedlings” in the National Seminar on “Biochemical and Molecular Biology Intervention for Nutritional security and Food safety” during December 12-13, 2019 organised by Department of Soil Science & Agricultural Chemistry, NMCA, NAU, Navsari.	2019
7	Dr. Ajay V. Narwade received second prize in oral presentation for the paper entitled “Effect of water stress on sugarcane quality parameters during different crop growth stages” in the National Seminar on “Biochemical and Molecular Biology Intervention for Nutritional security and Food safety” during December 12-13, 2019 organised by Department of Soil Science & Agricultural Chemistry, NMCA, NAU, Navsari.	2019
8	Dr. A. V. Narwade received best poster presentation award at ISPP West Zonal Seminar on “Emerging trends in Plant Physiology for Crop Production under climate change scenario” on 04-08-2018 at MPKV, Rahuri.	2018

## B. Seminar/training organized:

- 1) ISPP West Zonal Seminar on “**Innovative Approaches for Sustainable Agriculture Under Climate Change**” on December 22-23, 2022 in collaboration with Indian Society for Plant Physiology (ISPP), New Delhi and Department of Plant Physiology, N. M. College of Agriculture, NAU, Navsari.
- 2) ISPP West Zonal Seminar on “**Emerging Trends in Plant Physiology for Crop Production Under Climate Change Scenario**” on August 4, 2018 in collaboration with Indian Society for Plant Physiology (ISPP), New Delhi and MPKV, Rahuri (Maharashtra).
- 3) ISPP West Zonal Seminar on “**Enhancement of Crop Productivity through physiological interventions**” on May 11, 2015 in collaboration with Indian Society for Plant Physiology (ISPP), New Delhi and NAU, Navsari.

## C. Post graduate/Ph.D. thesis

Sr. No.	Year	No. of M.Sc. (Agri.)	No. of Ph.D.	Total
1	2005	1	0	1
2	2006	0	0	0
3	2007	0	0	0
4	2008	0	1	1
5	2009	1	0	1
6	2010	0	0	0
7	2011	1	0	1
8	2012	3	1	4
9	2013	0	1	1
10	2014	0	3	3
11	2015	1	0	1
12	2016	3	0	3
13	2017	1	1	2
14	2018	2	0	2
15	2019	1	1	2
16	2020	1	0	1
17	2021	1	0	1
18*	2022	1	1	2
19	2023	1	3	4
20	2024	2	0	2
21	2025	2	0	2

\* Department of Plant Physiology was established (w.e.f 01-06-2021)

#### D. Research recommendations

Sr. No.	Title and Recommendation	Approval Year																								
1.	<p><b>Development of tissue culture protocol for chrysanthemum novel mutants</b></p> <p>Developed tissue culture protocol for Chrysanthemum using flower petal as explant and details of protocol are as below</p> <table border="1"> <thead> <tr> <th>Stage No.</th><th>Stages</th><th>Treatment</th></tr> </thead> <tbody> <tr> <td>1</td><td>Explant sterilization treatment (Stage 0)</td><td>Mancozeb (0.2%) + Carbendazim (0.2%) for 3 hrs followed by surface sterilization with HgCl<sub>2</sub> (0.1%) for 4 minutes</td></tr> <tr> <td>2</td><td>Callus initiation (Stage 1) (9 to 14 days)</td><td>Murashige and Skoog (MS) + Benzylaminopurine (BAP) (4 mg/l) + Naphthalene Acetic Acid (NAA) (1 mg/l)</td></tr> <tr> <td>3</td><td>Shoot regeneration (Stage 2)</td><td>MS + BAP (4 mg/l) + NAA (0.1 mg/l)</td></tr> <tr> <td>4</td><td>Shoot multiplication (Stage 3)</td><td>MS + BAP (5 mg/l) + NAA (0.1 mg/l) + Gibberellic acid (GA<sub>3</sub>) (0.2 mg/l)</td></tr> <tr> <td>5</td><td>Root initiation (Stage 4)</td><td>Half MS + NAA (0.50 mg/l)</td></tr> <tr> <td>6</td><td>Hardening (Stage 5) (primary hardening)</td><td>Coco peat</td></tr> <tr> <td>7</td><td>Hardening (Stage 6) (secondary hardening)</td><td>Soil + Sand + Vermicompost (1:1:1)</td></tr> </tbody> </table>	Stage No.	Stages	Treatment	1	Explant sterilization treatment (Stage 0)	Mancozeb (0.2%) + Carbendazim (0.2%) for 3 hrs followed by surface sterilization with HgCl <sub>2</sub> (0.1%) for 4 minutes	2	Callus initiation (Stage 1) (9 to 14 days)	Murashige and Skoog (MS) + Benzylaminopurine (BAP) (4 mg/l) + Naphthalene Acetic Acid (NAA) (1 mg/l)	3	Shoot regeneration (Stage 2)	MS + BAP (4 mg/l) + NAA (0.1 mg/l)	4	Shoot multiplication (Stage 3)	MS + BAP (5 mg/l) + NAA (0.1 mg/l) + Gibberellic acid (GA <sub>3</sub> ) (0.2 mg/l)	5	Root initiation (Stage 4)	Half MS + NAA (0.50 mg/l)	6	Hardening (Stage 5) (primary hardening)	Coco peat	7	Hardening (Stage 6) (secondary hardening)	Soil + Sand + Vermicompost (1:1:1)	2025-26
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2	<p><b>Optimization of micropropagation protocol for different genotypes of banana.</b></p> <p>It is informed to the scientific community that out of ten diverse banana genotypes; Cheankadali, Lalkel and Rajapuri genotypes had better growth response to micropropagation protocol comprised of shoot tip explants surface sterilization treatment [Carbendazim (0.125%) + Chloramphenicol (500 mg/l) for 45 minutes + 1.0 % HgCl<sub>2</sub> solution for 10 minutes] followed by shoot multiplication [MS + BA (3.0 mg/l) + adenine sulphate (2.0 mg/l)] and root induction [<math>\frac{1}{2}</math> MS + 1.0 mg/l IBA] treatment.</p>	2020-21																								

#### E. Publications

Sr. No.	Publications	Total
1	Research papers	44
2	Books/Chapters/booklets	8
3	Practical manuals	6
4	Popular articles/ Bulletins/Leaflets /Folders	15