

College of Horticulture
Anand Agricultural University, Anand
17TH ANNUAL REPORT OF THE YEAR 2020-21
Research Chapter 4
Performa: A (Part I)

1. Importance of Research Centre / Department along with work carried out during 2020- 21 (in brief):

The prime mandate of College of Horticulture is to impart education in the field of horticulture science coupled conducting research on various disciplines like fruit, vegetable, flower as well as on postharvest technology. During the year 2020-21 following experiments were conducted under different departments of College of Horticulture:

Fruit Science Dept.:

- i. Effect of different organic manures and PGPR consortium on growth, yield and quality of sapota (*Manilkara achras L.*) cv. Kallipatti

Vegetable Science Dept.:

- i. Evaluation of vegetables during different season under different shade net condition

Floriculture and Landscape Architecture Dept.:

- i. Effect of spacing and nitrogen on growth, flowering, yield and shelf life of desi rose under middle Gujarat conditions
- ii. Evaluation of different chrysanthemum genotypes (loose flower) for yield and growth parameters
- iii. Feasibility of use of Reverse Osmosis (RO) waste water in gaillardia

Post Harvest Technology Dept.:

- i. Technology for production of Indian gooseberry (aonla) murabba
- ii. Development of production technology for vegetable based juice from carrot and tomato

Plant Protection Dept.:

- i. Bio-efficacy of botanicals against powdery mildew of fenugreek.
- ii. Evaluation of insecticides against aphid infesting in chrysanthemum
- iii. IPM technology for brinjal crop
- iv. Management of aphid in coriander through insecticidal seed treatments and bio-pesticides
- v. Survey and identification of causal organism of Mango malformation

- vi. Bio-efficacy of ready mix fungicides against powdery mildew of fenugreek

Natural Resource Management Dept.:

- i. Nutrient management through organics in broccoli
- ii. Evaluation of nutrient management modules in okra + cowpea - cabbage + fenugreek intercropping system

Basic Science Dept.:

- i. Comparison of different statistical models to forecast the area, production and productivity of major fruit crops of Gujarat
- 2. Research recommendations with photographs (2020-21):

I. Department of Post-Harvest Technology:

a. Technology for production of Indian gooseberry (Aonla) murabba

Recommendation for industry:

The entrepreneurs interested in the production of Indian gooseberry (aonla) shredded murabba are advised to adopt the processing technology developed for the purpose by Anand Agricultural University, Anand. The technology involves the blanching of aonla fruits in water at 100°C for 6 min followed by shredding through 5 mm stainless shredder. Final product is prepared by using aonla shred, sugar and spices mix followed by thermal processing. The develop aonla shredded murabba can be stored safely for 180 days at the ambient condition.



Overview of experiment

b. Development of Production Technology for Vegetable based Juice from Carrot and Tomato

Recommendation for industry:

The entrepreneurs interested in the production of vegetable based blended juice from carrot and tomatoes are advised to adopt processing technology developed for the purpose by the Anand Agricultural University, Anand. The technology involves the blanching of 15 mm carrot slices in water at 100°C for 8.5 min.

Blended juice is prepared by using carrot juice (43.34%), tomato juice (43.31%), lime juice (6.0%) and mint extract (7.35%) followed by thermal processing at 85°C for 20 min. The develop blend juice can be stored safely for 90 days at the ambient condition.



Overview of experiment

II. Department of Basic Science:

Comparison of different statistical models to forecast the area, production and productivity of major fruit crops in Gujarat (Community)

Recommendation for scientific community:

It is recommended that ARCH/GARCH model can be used to describe the pattern of area, production and productivity of banana crop in Gujarat. In case of mango crop, ARIMA model can be used to capture the pattern of area and productivity, whereas ARCH model can be used to capture the pattern of production.

3. Output during 2020-21 [No. of trials allotted (new / ongoing) and conducted successfully]

No. of ongoing trails : 13

No. of new trails : 06

4. Salient achievements during the year with photographs and information (Other than approved recommendation): **NIL**
5. Variety/ Breed/ Machinery etc. Released / developed with brief information and photographs.:

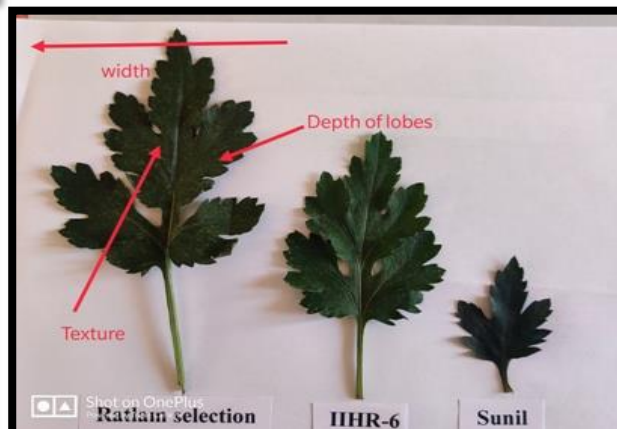
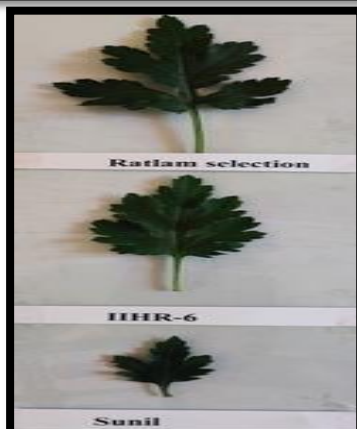
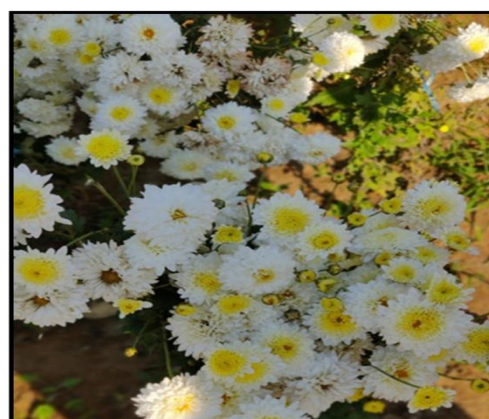
➤ **Endorse the chrysanthemum variety Ratlam Selection.**

Ratlam selection developed by department of floriculture and landscaping, PAU, Ludhiana in the year of 1997, performing better in our region also. Considering the performance of proposed variety, it has been proposed to endorse Ratlam Selection in the irrigated conditions of middle Gujarat during *Rabi* season.

Salient features/merits of the proposed variety Ratlam Selection

1. The proposed variety recorded 40.78 t/ha average flower yield which exhibited 130.27 and 29.83 per cent higher flower yield over the checks IIHR 6 and Sunil, respectively in middle Gujarat condition
2. The growth habit of proposed variety has determinate type with broad leathery leaf texture
3. The proposed variety has early flowering, white in colour with semi-double flower head
4. This variety has less prevalence of aphid population as compared to the checks IIHR 6 and Sunil
5. The flower of the variety has good shelf life

PHOTOGRAPHS OF RATLAM SELECTION



Comparative performance of Variety



Trader's Preference and Market price



6. For breeding: Generation wise detail and new crosses made during the year: **NIL**
7. Seed production information:

Department of Floriculture and Landscape architecture

Planting materials production (2020-21)

Planting material	Target (Nos.)	Production (Nos.)
Rooted cuttings, Grafts, Seedlings, Potted Plants	108550	134573

Sr. No.	Ornamental plants (Rooted cuttings, Grafts, Seedlings, Potted Plants etc)	Target (Nos.)	Production/Selling (Nos.)
1	Rose (Deshi)	5000	6711
2	Jasmin	2500	4126
3	Ixora	1000	1298
4	Bogainvella	2000	3219

5	Chrysanthemum	500	395
6	Hibiscus	2500	3651
7	Palm	100	341
8	Climbers	1500	1978
9	Ornamental Plants	25000	32588
10	Trees	5000	5051
11	Potted plant (big pot)	500	594
12	Potted plant (medium pot)	250	281
13	Hanging Basket	100	81
14	Plastic pot (big size)	500	562
15	Plastic pot (medium size)	100	17
16	Annual chrysanthemum seedlings	5000	7050
17	Marigold seedlings	15000	18300
18	Seasonal flower seedlings others (Naked)	40000	45900
19	Seasonal flower seedlings (In polybags)	2000	2430
Total production		108550	134573

8. Project title and financial outlay under projects of:

Budget Head: 12987-16

Year	Recurring			Non-recurring		
	Sanction grant	Expenditure	Balance	Sanction grant	Expenditure	Balance
2020-21	33,00,000	32,85,023	14,977	1,78,000	1,61,772	16,228

Budget Head: 12712-02

Year	Recurring			Non-recurring		
	Sanction grant	Expenditure	Balance	Sanction grant	Expenditure	Balance
2020-21	12,00,000	11,83,383	16,617	4,28,000	15,723	4,12,277

9. Awards / Honors etc. information with photographs: NIL

10. Important events

10 A. Seminar / Symposia / Conference / Training organized: Appendix - 1

10 B. University teachers who have participated in Seminar/Symposia/Conference /Training: Appendix - 2

10 C. Names and Details of dignitaries visited: NIL

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11. List of Research paper published during the year 2020-21:

No. of research papers published in scientific journal 2020-21	International Journal	00
	National Journal	16

Research Paper list:

i. International journal: NIL

ii. National journal:

1. Barad A. H., Dabhi M. V., Rathod N. K. and Prajapati H. N. (2020). Bio-efficacy of different insecticides against mealy bug infesting custard apple. *International Journal of Current Microbiology and Applied Science*, 9(9): 1723-1727.
2. Das A., Adhikari A., and Dudhat, B. L. (2020). Adoption of new sesame variety in small scale farming in West Bengal: Barriers and Strategies. *International Journal of Agriculture Sciences*, 12(11): 9923-9926.
3. Kacha H. L., Patel H. C. and Paradva D. R. (2020). Response of mango to micronutrients through soil and foliar applications on fruit quality and shelf life. *International Journal of Current Microbiology and Applied Sciences*, 9(11): 2316-2326.
4. Kacha H. L., Patel H. C., and Paradva D. R. (2020). Effect of soil and folier applications of micronutrients on flowering and yield of mango. *Journal of agriSerch*, 8(1): 40-44.
5. Parmar A. B., Patel G. G. and Patel P. C. (2020). Knowledge of the farmers about banana production technology. *Gujarat Journal of Extension Education*, 31 (1): 167-170.
6. Patel B. D., Parekh D. D., Rakesh Jangid and Thakor, A. O. (2020). Effect of different chemicals on physical parameters of sapota (*Manilkara achras* (Mill.) Fosberg) cv. Kalipatti under cold storage condition. *Journal of Pharmacognosy and Phytochemistry*, 9(5): 2374-2376.
7. Patel B. D., Parekh D. D., Thakor A. O., and Chaudhary H. L. (2020). Influence of different chemicals on biochemical parameters of sapota (*Manilkara chras* (Mill.) Fosberg) cv. Kalipatti under cold storage condition. *International Journal of Chemical Studies*, 8(5): 2035-2038.
8. Patel M. J., Patel D. A., Dhaduk H. L. and Shah, N. I. (2021). Evaluation of Guava (*Psidium guajava* L.) genotypes for growth and yield in middle Gujarat condition. *International Journal of Chemical Studies*, 9(1): 1527-1531.
9. Patel N. G., Parekh D. D., and Vasara R. P (2020). Influence of post-harvest application of ethrel and paper wrapping on physical parameter and ripening of papaya (*Carica papaya* L.) cv. Madhu Bindu. *International Journal of Chemical Studies*, 8(4): 1272-1275.

10. Patel N. G., Parekh D. D., Patel H. A., Chaudhari, H. J., and Sutariya, N. K. (2021). Influence of post-harvest application of ethrel on bio-chemical parameters of papaya (*Carica papaya* L.) cv. Madhu Bindu. *International Journal of Chemical Studies*, 9(1): 1046-1049
11. Prajapati H. N. and Barad A. H. (2020). Management of citrus Gummosis caused by *Phytophthora* spp. *The Bioscan*, 15(2): 213-217.
12. Prajapati H. N. and Patil R. K. (2020). Cultural and morphological variability among the isolates of *Colletotrichum* spp. causes fruit rot of papaya. *International Journal of Current Microbiology and Applied Science*, 9(8): 3344-3353.
13. Sapteshwriya S. V. and Barad A. H. (2020). Bio efficacy of insecticides against mealybug *Ferrisia virgata* infesting custard apple. *Indian Journal of Plant Protection*, 48 (4): 372-377.
14. Sapteshwriya S. V., and Barad A. H. (2020). Bio-efficacy of bio-pesticides against mealybug *Ferrisia virgata* infesting custard apple. *International Journal of Current Microbiology and Applied Sciences*, 9(11): 873-878.
15. Satodiya B. N., Bhatt A. H., Maheriya P. A. and Shah N. I. (2020). Effect of plant geometry on growth and yield of capsicum under open ventilated poly house. *International journal of chemical studies*, 8(5): 1745-1747.
16. Shiya. Vikram, Patel H. K., Raval C. H., Rathwa M. K., Patel P. S. and Patel H. K. (2020). Fodder yield and economics as influenced by integrated nutrient management on fodder dual purpose Oat (*Avena sativa*). *International Journal of Current Microbiology and Applied Sciences*, 9 (11): 3752-3758.

12. List of research paper/abstract presented at seminar / symposium / conference etc. for 2020-21:

In International level seminar/symposium/conference	00
In National level seminar/symposium/conference	03

Paper/abstract list:

- i. **International journal: NIL**
- ii. **National journal:**
 1. Ravani Amee, Prasad R.V., Gajera R. R. and Anadani Swati. (2021). Optimization of formulation for development of Moringa Chutney using Response Surface Methodology (RSM). A paper poster was presented in the E- National Conference on Texture & Rheology of Food Material organized by Indian Institute of Food Processing Technology (IIFPT), Thanjavur during 18-19 February, 2021.
 2. Sapteshwriya S. V. and Barad A. H. (2020). Bio-efficacy of bio-pesticides against mealybug, *Ferrisia virgata* infesting custard apple. A paper poster was presented in the National Symposium (On line) on Plant Health Management by Department of Plant pathology and Entomology College of Agriculture, Navsari Agricultural University, Gujarat during 02 -04 November, 2020.
 3. Sapteshwriya S. V. and Barad A. H. (2020). Residue analysis of effective insecticide against custard apple. A paper poster was presented in the National Symposium (On line) on Plant Health Management by Department of Plant pathology and Entomology College of Agriculture, Navsari Agricultural University, Gujarat during 02 -04 November, 2020.

iii. Popular articles published for the year 2020-21:

1. Bhatt, A. H.; Lodaya, B. P. and Satodiya, B. N. (2020). *Naliyer na pakni nikasni sakyata*, **Krusha Jivan**. pp. 20-22.
2. Bhatt., A. H.; Satodiya B. N.; Maheriya P. A. and Lodaya. B. P. (2021). *Hydroponics paddhti, Khetino ek navo abhigam*. pp. 32-34.
3. Gajera R. R. (2020). *Mukhya Masala Pak Marchama Sukavani Dwara Mulyavardhan*, **Krusha Govidya**. 73 (05), pp. 34-37.
4. Gajera R. R. (2021). *Krusha Karyoma Diesel Engine: Samanya Mushkelio Ane Tenu Nirakarn*, **Krusha Govidya**. 73 (10), pp. 44-48.
5. Satodiya B. N. and Dudhat B. L. (2021). *Sargvani nikasni tako ane antar rastriy dhorano*, **Babayan vikash parishad**. pp. 61-62.
6. Suthar, Y. M. and Prajapati, H. N. (2020). *Quorum Sensing in Plant Pathogenic Bacteria*, **Agriculture & Food: E-news lette**. 3(4), pp. 228-232.

13. Books / Book chapters published (2020-2021):

i. Books/ Booklets:

Sr. No.	Name of Book	Name of Authors	Name of Publisher
1.	Book on Krushi Pakoma Processing ane Mulyavardhan	Gajera R.R., Patel P.C., Sipai S. A.	Director of Extension Education, Anand Agricultural University, Anand.

ii. Book chapter:

Sr. No.	Name of Book	Book Chapter	Name of Authors	Name of Publisher
1	Krusha Pakoma Processing ane Mulyavardhan	Papaiyanu Processing	Rajput R.L., Gajera R.R. and Shah N.I.	Director of Extension Education, AAU, Anand.
2	Krusha Pakoma Processing ane Mulyavardhan	Jamphalma Processing	Rajput R.L., Gajera R.R. and Shah N.I.	Director of Extension Education, AAU, Anand.
3	Talim Sampoot of WTO na Paripekshama Shakbhaji Pakoni Nikashlaxi Kheti	Shakbhajimathi Juice: Processing ane Mulyavardhan	Gajera R.R.	Director of Extension Education, AAU, Anand.

APPENDIX-1**Seminar / Symposia / Conference / Training organized 2020-21:**

Name of events	Duration	Organize/Sponsored agency
Online Seminar on “Underutilized Horticultural Crops”	05-01-2021	College of Horticulture, AAU & NHAEP-CASST, AAU
Online Seminar on "Co-operative marketing in Gujarat"	30-1-2021	College of Horticulture, AAU & NHAEP-CASST, AAU
1 day webinar on “Shiyalu shakbhajina pakoma pak sanrakshan”	6-10-2020	PPAG, Gujarat & AAU, Anand
10 days training on “Research Methodology for Social sciences”	1-09-2020 to 11-09-2020	ICAR, New Delhi and NHAEP-CASST, AAU
2 days training on “Space technology & Machine Learning for Agriculture”	28-10-2020 to 29-10-2020	ICAR, New Delhi and NHAEP-CASST, AAU
1 day webinar on “Artificial Intelligence in Agriculture”	02-02-2021	ICAR, New Delhi and NHAEP-CASST, AAU

APPENDIX-2**University teachers who have participated in Seminar/Symposia/Conference Training during the year 2020-21:**

Sr. No.	Name of Teacher/ Scientist	Participated	Duration	
			From	to
1.	Dr. R. R. Gajera	2 days’ workshop on Hi-Tech Horticulture organized by Society for Advancement in Agriculture, Horticulture and Allied Sectors (SAAHAS	16-05-2020	17-05-2020
2.	Dr. A. H. Barad Dr. H.N. Prajapati	5 days training on Pesticide Application Techniques and Safety Measures organized by NIPHM, Rajendranagar, Hyderabad	01-06-2020	05-06-2020
3.	Mr. U. C. Chaudhari	1 day Webinar on Status and Scope of Vegetable Transplanter In Developing Countries organized by K. K. Wagh College of Agricultural Engineering & Technology, Nashik	19-06-2020	19-06-2020
4.	Dr. A. H. Barad Dr. H.N. Prajapati	5 days’ Workshop cum training on Entrepreneurship development in pest management for youth organized by College of Agriculture Iroisemba, Central Agricultural University, Imphal, Manipur	29-06-2020	03-07-2020
5.	Dr. A. H. Barad Dr.H.N.Prajapati Dr. C. H. Raval	Eight week on line course on Integrated pest management organized by agMOOCs, Department of Entomology, UAS-Raichur, Karnataka	-	June 2020

6.	Dr. B. N. Satodiya	2 days' workshop on Quality production of pomegranate in arid region during COVID 19 organized by AICRP on Arid Zone Fruits, ARS, Directorate of Research, SKRAU, Bikaner, Rajasthan	02-07-2020	03-07-2020
7.	Dr. D.R. Pardava	1 day Webinar on Advances in Disease and Pest Management for Sustainable Banana Industry organized by Assam Agricultural University, Jorhat, Assam	04-07-2020	04-07-2020
8.	Mr. U. C. Chaudhari	1 day Webinar on Opportunities of commercial exploitation of exotic fruits organized by Bihar Agricultural University	04-07-2020	04-07-2020
9.	Dr. A. V. Kotecha Dr. H.N. Prajapati Dr. Prity Kumari	2 days' Workshop cum training on Farmer Producer organizations and commodity market organized by ICAR, New Delhi and NHAEP-CASST	07-07-2020	08-07-2020
10.	Dr. R. R. Gajera	1 day Webinar on Intellectual Property Rights in Agricultural Sector under the aegis of World Bank-ICAR funded National Agricultural Higher Education Project (NAHEP) organized by Swami Keshwanand Rajasthan Agricultural University, Bikaner	17-07-2020	17-07-2020
11.	Dr. Prity Kumari	10 days FDP on Artificial Intelligence (AI), Machine Learning, Deep Learning & Its Applications by Edulabs in association with IIT Roorkee.	20-07-2020	30-07-2020
12.	Dr. A. H. Barad Dr. H.N. Prajapati	5 days training on Production Protocol for Predators and Parasitoids organized by NIPHM, Rajendranagar, Hyderabad	20-07-2020	24-07-2020
13.	Dr. C. H. Raval	1 day Webinar on Enhancing castor production : Genetic & technological intervention organized by SDAU, S.K.Nagar	23-07-2020	23-07-2020
14.	Dr. A. H. Barad Dr. Prity Kumari	2 days' Workshop cum training on Agricultural Market Reforms and Market Intelligence organized by ICAR, New Delhi and NAHEP-CAAST AAU, Anand	27-07-2020	28-07-2020
15.	Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on Future prospects of Agriculture in India organized by Department of agriculture, UAS, GKVK, Bengaluru, Karnataka	28-07-2020	28-07-2020

16.	Mr. U. C. Chaudhari	1 day Webinar on Research advances in kiwi production organized by Annamalai University	31-07-2020	31-07-2020
17.	Dr. Prity Kumari	4 Weeks short term course on “AI For Everyone” offered by Stanford university on Coursera	-	July 2020
18.	Dr. C. H. Raval	1 day Webinar on Recent trends in seed spices production organized by SDAU, S.K.Nagar	04-08-2020	04-08-2020
19.	Dr. R. R. Gajera	2 days’ workshop Functional Food of Animal Origin: Role in Health Promotion and Disease Prevention organized by Department of Livestock Products Technology, College of Veterinary Science and Animal Husbandry, U. P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU) Mathura (Uttar Pradesh)	06-08-2020	07-08-2020
20.	Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on Role of Agricultural & Environmental Biotechnology for a Sustainable Future organized by Bioingene.com	11-08-2020	11-08-2020
21.	Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on Bio pesticides: Green technology in sustainable agriculture organized by College of Agriculture, Bharuch, NAU, Navsari	18-08-2020	18-08-2020
22.	Dr. A. H. Barad Dr. H.N. Prajapati Dr. B.L. Dudhat Dr. C. H. Raval	1 day Webinar on <i>Kharif pakoma pak sarkshan na pravartman prashno ane nirakaran</i> organized by PPAG, Gujarat and AAU, Anand	20-08-2020	20-08-2020
23.	Dr. A. V. Kotecha	3 days’ workshop on Advance in moringa farming– a way forward to trending entrepreneurship organized by Horticultural college and research institute, Periyakulam(TN)	25-08-2020	28-08-2020
24.	Dr. A. H. Barad Dr. H.N. Prajapati Dr. C. H. Raval	1 day Webinar on Recent trends in Horticultural entomology organized by College of Horticulture, Jagidan, SDAU, Dantiwada	27-08-2020	27-08-2020
25.	Dr. R. R. Gajera Dr. A. B. Parmar	5 days training on “CAD for Landscaping” organized by Dept. of floriculture and Landscape Architecture, College of Horticulture, Bagalkot.	31-08-2020	09-09-2020
26.	Dr. A. H. Barad Dr. H.N. Prajapati Dr. B.L. Dudhat	10 days Training on Research methodology for social science organized by ICAR, New Delhi and NAHEP-CAAST AAU, Anand	01-09-2020	11-09-2020

27.	Dr. R. R. Gajera	1 day Webinar on Entrepreneurship Opportunities in Processing of Fruit and Vegetable of the Arid Region organized by Department of Post Harvest Technology, College of Horticulture, Sardarkrushinagar Dantiwada Agricultural University, Jagudan	02-09-2020	02-09-2020
28.	Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on Plant Health Management for Sustainable Agriculture organized by NIPHM, Rajendranagar, Hyderabad	04-09-2020	04-09-2020
29.	Dr. D.R. Pardava	1 day Webinar on Recent Advances in Underutilized Fruits organized by College of Horticulture, SDAU, Jagudan	05-09-2020	05-09-2020
30.	Dr. A. H. Barad Dr. H.N. Prajapati	3 days e- Work shop on Current scenario of post-graduation research in Agricultural sector organized by Swami keshwanand Rajasthan Agricultural University, Bikaner, Rajshthan	09-09-2020	11-09-2020
31.	Dr. R. R. Gajera Dr. A. H. Barad Dr. A. B. Parmar Dr. H.N. Prajapati	1 day Webinar on Biotechnological Approaches for Crop improvement organized by BACA, Alumni, AAU, Anand	10-09-2020	10-09-2020
32.	Dr. A. H. Barad Dr. H.N. Prajapati Dr. C. H. Raval	1 day Webinar on <i>Kapasna pakma pak sanrakshan</i> organized by PPAG, Gujarat and AAU, Anand	16-09-2020	16-09-2020
33.	Dr. R.R. Gajera Dr. A. B. Parmar	Webinar Series on “Nutrition and health – Eat right, Bite by bite” organized by RKVY-RAFTAAR Agri-Business Incubator, College of Food processing technology and Bio energy, AAU, Anand	21-09-2020	25-09-2020
34.	Dr. D.R. Pardava Dr. A. V. Kotecha	1 day Webinar on Underutilized Fruits: converting waste land in to goldmine organized by College of Agriculture, NAU, Bharuch	30-09-2020	30-09-2020
35.	Dr. B. N. Satodiya Dr. R. R. Gajera Dr. A. H. Barad Dr. B.L. Dudhat Dr. A. B. Parmar Dr. Prity Kumari Dr. H.N. Prajapati Mr. U. C. Chaudhari	1 day webinar on <i>Shiyalu shakbhajina pakoma pak sanrakshan</i> organized by PPAG, Gujarat and AAU, Anand	06-10-2020	06-10-2020

36.	Dr. A. B. dudhat	1 day Webinar on Regulatory environment for safe use of Agrochemicals in India & “ Underutilized foods for enhancement of food and nutritional security organized by NAHEP-CAAST NAU, Navsari	07-10-2020	07-10-2020
37.	Dr. R. R. Gajera	1 day Webinar on Recent Trends in Post-Harvest Preservation of Fruits & Vegetables organized by Department of Horticulture, Aromatic and Medicinal Plants (HAMP), Mizoram University, Aizawl	13-10-2020	13-10-2020
38.	Dr. Prity Kumari	International Conference on Artificial Intelligence (ICOAI) organized by International Association of Computer and Information technology held at Amsterdam (online)	14-10-2020	16-10-2020
39.	Dr. B.L. Dudhat Dr. A. B. Parmar	1 day Webinar on Market Intelligence and Export Potential in Horticulture Sector organized by Department of Social Science, College of Horticulture, SDAU, Jagudan.	14-10-2020	14-10-2020
40.	Dr. D.R. Pardava	1 day Webinar on Future Strategies for Multiplication of Potato organized by University of Horticulture Science, Bagalkot and International Potato Centre	15-10-2020	15-10-2020
41.	Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on Integrated Disease management in Horticultural crops organized by College of Horticulture, Jagidan, SDAU, Dantiwada	22-10-2020	22-10-2020
42.	Dr. A. H. Barad Dr. H.N. Prajapati Dr. C. H. Raval Mr.U.C. Chaudhri	1 day Webinar on <i>Sajeev khetima pak sanrakshan</i> organized by PPAG, Gujarat and AAU, Anand	27-10-2020	27-10-2020
43.	Dr. A. H. Barad Dr. H.N. Prajapati Dr. C. H. Raval Mr. U. C. Chaudhari	1 day Webinar on <i>Chanadn ni Aadhunik Kheti</i> organized by NAHEP-CAAST AAU, Anand & Chandan Vikas Association (India)	02-11-2020	02-11-2020
44.	Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on <i>Shiyalu pakkoma poshan vyasthapan</i> organized by ICAR, New Delhi and NAHEP-CAAST AAU, Anand & Indian society of soil science Anand chapter	09-11-2020	09-11-2020
45.	Dr. B.L. Dudhat	1 day Webinar on Cost Effective and Innovative Green Energy Initiatives for Futuristic Agriculture organized by NAHEP-CAAST AAU, Anand & CAET, AAU ,Godhra	11-11-2020	11-11-2020

46.	Dr. A. B. Parmar	1 day Webinar on <i>Jivant Jamin-Swasth Jamin</i> ” organized by ICAR, New Delhi and NAHEP-CAAST AAU, Anand & Indian society of soil science Anand chapter	5-12-2020	5-12-2020
47.	Dr. Prity Kumari	5 days’ Workshop cum training on Accounting for climate risk for crop yield modeling organized by Department of Agricultural Meteorology, BACA and NAHEP-CAAST AAU, Anand	07-12-2020	11-12-2020
48.	Dr. Prity Kumari	10 days FDP on Computer Vision and Image Processing organized by EICT IIT Roorkee.	14-12-2020	24-12-2020
49.	Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on Advance in micro-irrigation and fertigation for improving water use efficiency and crop productivity organized by College of Agriculture, Vaso, AAU, Anand & NHAEP-CASST, AAU, Ananad	18-12-2020	18-12-2020
50.	Dr. N.I. Shah Dr. B. N. Satodiya Dr. A. H. Barad Dr. H.N. Prajapati	1 day Webinar on Protected cultivation for enhancing resource use efficiency and productivity of horticultural crops organized by College of Agriculture, Vaso, AAU, Anand & NHAEP-CASST, AAU, Ananad	22-12-2020	22-12-2020
51.	Dr. R. R. Gajera	40 hours training on Fruits and Vegetables Processing for “Training of Master Trainers for Food Micro and Small Enterprises,” organized by IIFPT, Thanjavur and FICSI (Food Industry Capacity & Skill Initiative) a Food Processing Sector Skill Council, New Delhi	-	Dec. 2020
52.	Dr. R. R. Gajera Dr. A. V. Kotecha Dr. A. H. Barad Dr. A. B. Parmar Dr. D.R. Pardava Dr. H.N. Prajapati	1 day Webinar on Underutilized horticultural crops organized by College of Horticulture, AAU & NHAEP-CASST, AAU, Ananad	05-01-2021	05-01-2021
53.	Dr. Prity Kumari Dr. R. R. Gajera	1 day Webinar on Data Science for Agriculture under project named "Establishing center for Agricultural market Intelligence” organized by ICAR, New Delhi and NAHEP-CAAST AAU, Anand	12-01-2021	12-01-2021
54.	Dr. B. N. Satodiya Dr. A. B. Parmar	2 days Webinar on “Recent Advances in mango production” organized by College of Horticulture,	15-01-2021	16-01-2021

		Bidar, University of Horticultural Sciences, Bagalkot, Karnataka		
55.	Dr. R. R. Gajera	5 days training on Value Addition in Milk, Fruits and Vegetables: A Success Mantra for Agripreneurs organized by NAHEP-CAAST AAU, Anand	18-01-2021	22-01-2021
56.	Dr. B. N. Satodiya Dr. R. R. Gajera Dr. A. H. Barad Dr. B.L. Dudhat Dr. Prity Kumari Dr. H.N. Prajapati	1 day Webinar on Co-operative Marketing in Gujarat organized by College of Horticulture, AAU & NHAEP-CASST, AAU	30-01-2021	30-01-2021
57.	Dr. A. V. Kotecha Dr. B.L. Dudhat	1 day Webinar on Artificial intelligence in agriculture organized by NAHEP-CAAST AAU, Anand	02-02-2021	02-02-2021
58.	Dr. Prity Kumari	10 days FDP on Machine Learning & AI by Eduxlabs in association with IIT Hyderabad	18-03-2021	28-03-2021
59.	Dr. A. B. Parmar	Conference on “ Biological tools for sustainable environment organized by Department of Biosciences, Veer Narmad South Gujarat University, Surat.	27-03-2021	27-03-2021

College of Horticulture
Anand Agricultural University, Anand
17TH ANNUAL REPORT OF THE YEAR 2020-21
Research Chapter 4
Performa: B

Name of Unit: College of Horticulture

Details of Seminar/ Symposia/ Conference/ Training attended by the faculties

1	Total number of national seminar attended by total faculty in the year	37
2	Total number of international seminar attended by total faculty in the year	00
3	Total number of workshop & conferences attended by total faculty in the year	11
4	Total number of research papers presented by faculty at conferences in India & abroad during the year	01
5	Number of research contribution to Scopus till date by permanent faculty	02
6	Number of research contribution to Scopus by permanent faculty	00
7	Total number of <u>research publications</u> of <u>existing permanent faculty</u> in <u>national journals</u>	16

Details of Research Publications (National):

Name of Faculty Member	Name of the Research Paper	Year of Publication	Name of the Journal
Satodiya B. N. and Shah N. I.	Effect of plant geometry on growth and yield of capsicum under open ventilated poly house	2020	International journal of chemical studies
	Evaluation of Guava (<i>Psidium guajava</i> L.) genotypes for growth and yield in middle Gujarat condition	2021	
Parekh D. D.	Influence of post-harvest application of ethrel and paper wrapping on physical parameter and ripening of papaya (<i>Carica papaya</i> L.) cv. Madhu Bindu	2020	International journal of chemical studies
	Influence of different chemicals on biochemical parameters of sapota (<i>Manilkara chras</i> (Mill.) Fosberg) cv. Kalipatti under cold storage condition	2020	
	Influence of post-harvest application of ethrel on bio-chemical parameters of papaya (<i>Carica papaya</i> L.) cv. Madhu Bindu	2021	
	Effect of different chemicals on physical parameters of sapota (<i>Manilkara achras</i> (Mill.) Fosberg) cv. Kalipatti under cold storage condition	2020	Journal of Pharmacognosy and Phytochemistry
Parmar A. B.	Knowledge of the farmers about banana production technology	2020	Gujarat Journal of Extension Education

Paradva D. R.	Response of Mango to Micronutrients through Soil and Foliar Applications on Fruit Quality and Shelf Life	2020	International Journal of Current Microbiology and Applied Sciences
	Effect of soil and folier applications of micronutrients on flowering and yield of mango	2020	Journal of agriSerch
Barad A. H. and Prajapati H. N.	Bio-efficacy of different insecticides against mealy bug infesting custard apple	2020	International Journal of Current Microbiology and Applied Science
	Management of citrus Gummosis caused by Phytophthora spp.	2020	The Bioscan
Barad A. H.	Bio-efficacy of bio-pesticides against mealybug Ferrisia virgata infesting custard apple	2020	International Journal of Current Microbiology and Applied Sciences
	Bio efficacy of insecticides against mealybug Ferrisia virgata infesting custard apple	2020	Indian Journal of Plant Protection
Prajapati H. N.	Cultural and Morphological Variability among the Isolates of Colletotrichum spp. Causes Fruit Rot of Papaya	2020	International Journal of Current Microbiology and Applied Science
Raval C. H.	Fodder Yield and Economics as Influenced by Integrated Nutrient Management on Fodder Dual Purpose Oat (Avena sativa).	2020	International Journal of Current Microbiology and Applied Sciences
Dudhat B. L.	Adoption of New Sesame Variety In Small Scale Farming In West Bengal: Barriers And Strategies	2020	International Journal of Agriculture Sciences
8.	Total number of <u>research publications</u> of <u>existing permanent faculty</u> in <u>international</u> journals:		00
9.	Total number of books published by existing permanent faculty in the year		01

Number and value of research projects undertaken by the University with various organization in the year

Sr. No.	Research Projects	Number / Value
1	Number of research projects	NIL
2	Total value of research projects (Rs. Lakhs)	
Sr. No.	Consultancy Projects	Number / Value
1	Number of consultancy projects	NIL
2	Total value of consultancy projects (Rs. Lakhs)	
Details about Patent and Intellectual Property Rights (IPRs) filed by the University		
Sr. No.	Patents	Number
1	No. of Patents Filed	NIL
2	No. of Patents Published	
3	No. of Patents Granted	
4	No. of Patents Licensed	

5	Intellectual Property Rights (IPRs)	
6	Total earning from Patents (in Rupees)	
Awards / Fellowship		
1	Number of prestigious national & international awards received by the permanent faculty	NIL
2	Total number of permanent faculties received Research awards	
3	Total number of permanent faculties awarded Emeritus Fellowship	