

FUTURE PLANS

VISION

Prevention of Post Harvest losses and quality assurance of horticultural produce / food through processing and value addition to augment the income of farming community /entrepreneurers.

MISSION

- Human Resource Development
- Research on Post- Harvest Technology of Horticultural Crops
- Development of appropriate PHT technologies for industries
- Technical knowhow and advisory services
- Consultancy services
- Community Canning Services
- Commercial manufacturing of fruit and vegetable products

MANDATE

Teaching, Research and Extension

Teaching:

- ❖ M.Sc. in Post Harvest Technology (Horticulture)
- ❖ Ph.D. in Post Harvest Technology (Horticulture)

Course credit hours

UG: 03 (08 credit hours) in B.Sc. Horticulture

PG: M.Sc.: 13 (24 - 25 Credit hours)

Ph.D.: 09 (24 -25 Credit Hours)

- ❖ Besides this, the Department faculty is engaged in imparting trainings to students under Experiential Learning

Programme (ELP), RAWE Training Programme (UG), In-plant Training (PG) and teaching courses related to Post Harvest Technology in other Departments / Colleges of the University.

Research:

THRUST AREAS OF RESEARCH
✓ Development of cool chain, low cost storage, handling and packaging techniques.
✓ Exploration of plant extracts in extension of storage life of fruits and vegetables.
✓ Development of processes for the preparation of instant and extruded food products.
✓ Development of technology for processing and value addition of wild fruits.
✓ Preparation of natural flavonoids, antioxidants, bio-colours and health foods.
✓ Research on fungal toxins' occurrence and remedies in cereals, fruits, nuts and their products (e.g. patulin, aflatoxin, rubratoxin, fumonisin, ochratoxinetc).
✓ Development of convenient and functional processed products by incorporation of milk, milk products, oat, linseed, soybean, sunflower seed into fruit and vegetable products.
✓ Development and evaluation of natural colours from fruit and vegetable.
✓ New convenience value added food products from wastes of fruit and vegetable industry.
✓ Establishment of HACCP protocols for different food commodities for TQM.
✓ Technology for the preparation of health oriented appetizer, nectar, jam, squash, chutney, leather, toffee, instant powder etc.
✓ Screening of tomato varieties & hybrids for the preparation of juice, puree, paste, ketchup & canning.

✓ Technology for preparation of low calorie health drinks from fruits & vegetables.
✓ Technology for the preparation of dehydration of fruits and vegetables.
✓ Osmo-canning technology for suitable fruits and vegetables.
✓ Development of fruit juice based carbonated beverages.
✓ Development of technology for extraction of pectin & essence from mango waste.
✓ Utilization of mango peel for conversion of edible products.
✓ Development of protocol for extension of storage life of cut flower crops.
✓ To provide community canning services to the university employees and nearby farmers.

Extension:

- **Demonstration of the developed technology to the farmers of the Gujarat and nearby States.**
- **Demonstration of the developed technology to the students of the different universities / colleges.**
- **Demonstration of the developed technologies to the farmers at field level.**
- **To provide trainings for preparation of different food products to the students under Experience Learning Programme.**
- **Community canning services of various products being prepared in the Processing unit to the Employees and people of adjoining areas were benefited.**
- **The scientists of the department involved in transferring technologies (within campus and off-campus) via delivering lectures and giving demonstration in collaboration with Directorate of extension education and actively participating in Kisanmelas in all seven districts under NAU jurisdiction.**

SWOT Analysis

STRENGTH

- ✓ Well qualified quality faculty members from interdisciplinary branches such as Post Harvest Technology, Agricultural Process and Food Engineering, Post Harvest Engineering and Food Microbiology.
- ✓ Well-equipped laboratories with modern equipment.
- ✓ Experiential Learning Programme (ELP) with exposure to commercial food processing plants.
- ✓ Linkages with food industries, farmers and processors.
- ✓ Emerging promising sector of food processing and value addition, dehydrated products, nutraceuticals and health drinks.
 - Adequate financial resources.

WEAKNESS

- ✓ Lack of trained supporting manpower.
- ✓ Lack of placement of students as per qualification.
- ✓ Lack of targeted advertisement of PHT Centre for students residing in other states.
- ✓ Marketing of dehydrated vegetables.

OPPORTUNITIES

- ✓ Agility and empowerment of young research team.
- ✓ Increasing reverence of multidisciplinary research portfolio.
- ✓ Accreditation of program.
- ✓ Integration of all facilities closer to Centre of Excellence building

THREAT

- ✓ Unavailability of skilled labour for plant maintenance