NAVSARI AGRICULTURAL UNIVERSITY

DEPARTMENT OF PLANTATION, SPICES, MEDICINAL AND AROMATIC CROPS

ACHF NAU
Let's Bloom Human Fruition

FUTURE PLANS

VISION

Augmenting the share of horticulture sector in GDP of the state through research and education.

MISSION

Generation of human resources through quality learning and development of cost-effective and viable technologies.

MANDATE

Teaching:

- UG & PG level as well as Guiding up to PG level.
- Coaching classes for SRF/JRF/NET Exam.
- Motivation of students for different projects.

Research:

- Collection, evaluation and maintenance of germplasm of important PSMA crops *viz.*, coconut, cashewnut, turmeric, garlic etc.
- Developing high yielding, disease and insect-pest tolerance varieties / hybrids of PSMA crops with better quality.
- Production of grafts / planting materials of various PSMA crops.
- Developing improved production technology in various PSMA crops.
- Crop based cropping system and integrated farming system in plantation crops.

Extension:

- Participation in *Krishi Mahotsava*- a flagship programme of GoG.
- Organizing fruit exhibition-cum-competition, Farmers' training, *shibir* etc.
- To disseminate ToT through publications.
- TV telecast and radio talks on various aspects of fruit crops.
- "*Mera Gaon Mera Gaurav*" and Farmers FIRST programme related activities.
- Diagnostic visit to farmers' field.

SWOT Analysis

STRENGTH

1) At present, Government Organizations, State Agricultural Universities and Non-Government Organizations are involved in increasing acreage and production of major plantation, spices, medicinal and aromatic crops.
2) Area under PSMA crops is increasing year by year.
3) Climate of Western India is highly suitable for various types of plantation, spices, medicinal and aromatic crops.
4) Western India is rich in plant biodiversity that could be utilized for developing promising cultivars of desirable traits, especially underutilized spices and medicinal plants.
5) Gujarat has a long sea coast which is highly suitable for coconut and palms.
6) An increase in area under horticultural crops as a result of assured irrigation facility being provided by Government.
7) Government policies are supportive for horticultural development and other required infrastructure.
8) Technologies have been established for by-product utilization of plantation, spices and medicinal crops.
9) Technologies developed for off season and early sowing which provide better remuneration in garlic.
10) Vansada and surrounding area has emerged out as nursery hub of the state because of favourable agro-climatic conditions for plant multiplication.
11) Horticultural processing industry is the emerging sector for food processing and value addition.
12) Highly qualified faculty members and well-equipped laboratories are available to develop new innovative technologies.

WEAKNESS

1) Unawareness of farmers in respect to cultivation practices and export.
2) Maximum area under fruits crops (coconut, cashewnut, garlic, turmeric etc.) is covered by single variety.
3) Unavailability of quality planting material in fruits like coconut, cashew, and underutilized spices and medicinal crops.
4) Less knowledge about value addition and waste utilization of major PSMA crops.
5) Volatile markets and market intelligence.
6) Lack of standard grafting techniques for cashew.
7) Shortage of trained human resources in medicinal and aromatic crops.
8) Lack of improved production technology for problematic soils / coastal

regions.

9) Lack of standard package of practices for medicinal and aromatic crops.
10) Lack of trained supporting manpower for processing and value addition
11) High capital investment required for setting up of the processing units.
12) Lack of processing technologies for plantation, spices, medicinal and aromatic crops.

OPPORTUNITIES

1) Lots of barren/ fallow land and hilly tribal belt of Western India.
2) Long coastal tract of Gujarat and problematic areas.
3) Introduction of newly released varieties/hybrids in PSMA crops.
4) Higher domestic and international demand due to rich source of anti-oxidants, nutrients and medicinal values of PSMA crops.
5) More adoption of precision farming technologies namely drip irrigation, high density plantation, organic farming, IPDM etc.
6) Crop based cropping systems *viz*., intercropping, mixed cropping, multistory cropping
7) Huge production of garlic and onion in Saurasthra region of Gujarat.
8) Linear increment in demand for value added products.
9) Value addition and their by-product utilization is the emerging field to augment the income of the farmers.
10) Agility and empowerment of young research team in Post Harvest Management.
11) Higher demand for nutraceutical and functional foods due to increased health concern.
12) Subsidies are being provided by Government for setting up of protected structures and processing Units.
13) Export of processed horticultural commodities.
14) Increasing intake of students for generation of human resources in field of PSMA.

THREATS

1) Highly perishable in nature.
2) Static productivity due to injudicious use of fertilizers, old orchards, pest/ disease problems and lack of knowledge.
3) Erratic and irregular rainfall.
4) Effect on flowering and fruiting due to climate change.
5) Unstable market assurance and gluts.
6) Lack of export policy.
7) Heavy monetary loss due to high post harvest losses.
8) High dose of preservatives in the processed products which are hazardous

for human health.

9) Unavailability of skilled trained manpower for maintenance of processing plants.

FUTURE PLAN

- Advancement in teaching with field exposure to the graduates and postgraduates students of PSMA.
- To speed- up the activities of research in the area of PSMA.
- Introduction to evaluation of new PSMA crops.
- To prepare planning for different types of extension activities and training programs.
- Provide quality planting material of PSMA crops to farmers.
- Breeding programmes on commercially important PSMA crops of this area.
- To collect the maximum numbers of local germplasm of coconut.
- To conduct need based research on coconut for different agro ecology of South Gujarat.
- Cultivation of papaya (Fruit), ginger, onion, garlic (vegetables), heliconia, marigold (Flowers) as well as tuber crops *etc.* under coconut garden.
- To increase the area of coconut through TSP under Navsari, Dang, Valsad and Narmada districts of south Gujarat (As per survey and project programme).
- Small scale unit for production of vermicompost and vermiwash from coconut leaves.
- Value added products from inflorescence and tender as well as dry nuts.
- Developing cost effective and comprehensive management package for coconut cultivation.
- Pesticide residue analysis on coconut produces to ensure safe use.
- Extension activities focusing on participatory approaches at community level and training the extension personnel for effective transfer of technology.