

# Research Projects

## For Fruit crops:

Sr. No.	Title of Research Project	Year of Commencement & Budget Head	PI & Co-PI	Funding Agency
1	Strengthening Research Activities of Fruit Crops (merged 12028 and 12095)	2012-13 (B. H.: 329/12025)	Dr. V. K. Parmar	Plan Scheme
2	Project for Research in Fruit Crops	1965 (B. H.: 329/5014-3)	Dr. B. M. Tandel	Non Plan Scheme
3	Establishment of Department of Horticulture	1989-90 (B. H.: 6503/03)	Dr. V. K. Parmar	Non Plan Scheme
4	Revolving fund scheme	1991-92 (B. H. 9510- N. 3 R. F.)	Dr. B. M. Tandel	Revolving fund
5	Revolving fund scheme ICAR.	2006-07 (B.H. 2704-55 B (1))	Dr. B. M. Tandel	Revolving fund
6	Experiential Learning Program on Commercial Production of Horticultural Crops	2011 (B. H. 9510- N-60 R. F.)	Dr. Tulsi Gurjar	-

### 1. Strengthening Research Activities of Fruit Crops (B. H. 329/12025)

#### Objectives:

- Introduction, maintenance, evaluation and characterization of new fruit crops for crop improvement.
- To develop the production technology for high yield, better quality fruits including the orchard management like high density planting, nutrition, water management, use of plant growth regulators, rejuvenation, special horticultural plant production, etc.
- To standardize rootstocks for advance technology for multiplication of true-to-type planting material for ultra high density of fruit crops.

- To undertake basic and applied multi-disciplinary research for developing climate smart technology to enhance productivity of fruit crops.
- Qualitative studies of important fruits and their post harvest studies of bio-chemical and physiological aspects such as extension of shelf life, nomination of post harvest indices in view of marketability.
- Inter disciplinary approach to develop human resources through training and demonstrations.

## **2. Project for Research in Fruit Crops (B. H. 329/5014-3)**

### **Objectives:**

- To find out the optimum nutrient requirement of major horticultural crops viz., mango, sapota and coconut.
- To introduce new fruit crops for the region.
- To supply true to type planting material.
- To produce new variety this may be superior to local in mango and sapota.

## **3. Establishment of Department of Horticulture (B. H. 6503/03)**

### **Objectives:**

- To arrange research on Horticulture and P. G. training.
- To review and coordinate the Horticulture research
- To prepare research on Horticultural crops and to implement among the different center.
- To implement results of research for Horticultural crops through wings of Extension Education of University and State Department of Agriculture.
- To arrange the short term trainings for farmers
- To guide PG students through university and research.

#### **4. Revolving fund scheme (B. H. 9510- N. 3 R. F.)**

##### **Objectives:**

- To rotate the fund by using it for commercial purposes.
- To utilize spare farm land.

#### **5. Revolving fund scheme ICAR. (B.H. 2704-55 B (1))**

##### **Objectives:**

- To rotate the fund by using it for commercial purpose like seed programme of vegetable crop and preparation of grafts and seedlings.

#### **6. Experiential Learning Program on Commercial Production of Horticultural Crops (B. H. 9510- N-60 R. F.)**

##### **Objectives:**

- To train students in project formulation, lay out and planning of commercial nurseries.
- To provide hands on training to students in mass multiplication of seedlings and grafted plants
- To make students proficient in marketing of seedlings and grafted plants

### **List of ongoing experiments**

#### **1. Research and development in fruit crops (B.H. 12025)**

1. Study the effect of seasonal variations on flowering phenology of sapota cv. Kalipatti
2. Feasibility of planting and pruning intensity of meadow orchard in guava cv. Lalit
3. Effect of pruning on sapota cv. Kalipatti planted at normal distance
4. Hybridization in mango using  $L \times T$  analysis
5. Survey and selection of elite clones of mango
6. Hybridization in Sapota
7. Effect of seed soaking and time of sowing on germination and seedling vigour on sapota

8. Effect of season on stem cutting of dragon fruit (*Hylocereus polyrhizus* L.)
9. Effect of fruit bagging and pre harvest chemical spray on fruit quality and shelf life of mango cv. Kesar under HDP
10. Effect of saline water and melatonin application on growth, nutrient uptake and survival of mango seedling under salt stress regimes
11. Response of Silicon on flowering, yield and quality of Sapota cv. Kalipatti.

## **2. Research in Fruit Crops (B.H. 5014-3)**

1. Effect of heading back and pruning on growth and yield of high density planting orchard of mango cv. Kesar
2. Effect of heading back and pruning on growth and yield in sapota cv. Kalipatti planted at normal distance
3. Effect of growth regulators on flowering and yield of sapota cv. Kalipatti
4. Hybridization in Mango

## **3. Establishment of Department of Horticulture (B. H. 6503/03)**

1. Effect of weather parameters on flowering and fruiting of HDP mango under South Gujarat condition.

## **For Plantation, Spices, Medicinal and Aromatic crops**

<b>Sr. No.</b>	<b>Title of Research Project</b>	<b>Year of Commencement &amp; Budget Head</b>	<b>PI &amp; Co-PI</b>	<b>Funding Agency</b>
<b>1</b>	All India Coordinated Research Project on Palms	2008-09 (B. H.: 329/2044)	Dr. Pankaj P. Bhalerao	ICAR
<b>2</b>	Mission for Integrated Development of Horticulture	2010-11 (B. H.: 329/18930-1)	Dr. Pankaj P. Bhalerao	Other Agency

### **1. All India Coordinated Research Project on Palms (BH: 329/2044)**

#### **Objectives:**

- To identify, conserve and utilize elite genetic resources for useful traits in palms and cocoa from different agro-climatic regions and to evaluate performance of varieties/hybrids under different locations and to facilitate release of varieties/hybrids under different locations.
- To improve input use efficiency and develop location-specific palm based integrated farming systems to enhance the productivity per unit area and organic cultivation packages for palms and palm-based farming systems.
- To demonstrate and transfer of technologies to the farmers.

### **2. Mission for Integrated Development of Horticulture (BH: 329/18930-1)**

#### **Objectives:**

- Seed production programme of turmeric crop.
- Selling of produced seeds to the farmers/organization/institute *etc.*