

## RHREC, BENGALURU



Centre Name	:	Regional Horticulture Research and Extension Centre, Bengaluru
Address	:	UHS Campus, GKVK Post, Bengaluru-560065 Email: adrebengaluru@uhsbagalkot.edu.in Mobile: 9480696382
Year of Establishment	:	2010-11
Area	:	22 ha
Soil Type	:	Red Loamy
Latitude	:	- --
Longitude	:	13° 09' North
Altitude	:	-
Average maximum temperature	:	29.30 0C
Average minimum temperature	:	17.910C
Average Annual rainfall	:	921mm
Average Relative Humidity	:	Forenoon :85%, Afternoon:48.17%

**1. Location:** Regional Horticulture Research and Extension Centre (RHREC) was established under the umbrella of University of Horticultural Sciences, Bagalkot, during the year 2010-11. It is situated on the western side of Gandhi Krishi Vignana Kendra (GKVK) adjoining to Vidyaranyapura on the right side of Major Sandeep Unnikrishnan road. Presently, the centre has

55 acres of land for various horticultural crops, takes up nursery activities and supplies quality planting materials to the stakeholders, soil, plant and water analysis and concentrates on its research and extension activities.

**2. Brief description of the soil:** The soil of RHREC are deep to very deep in depth, well drained soils with poor water holding capacity. The soils are laterite, with red sandy loam in texture. The soils are moderate to highly acidic in nature (pH 4.15 - 6.5), with electrical conductivity of 0.11 to 1.29 dS m<sup>-1</sup>, low in organic carbon content (0.29- 0.54 % ), low to medium in available nitrogen (238 – 313.6 kg ha<sup>-1</sup>), low to medium in available phosphorus (0.57-48.09 kg ha<sup>-1</sup>) and medium to high in available potassium (205 – 765.0 kg ha<sup>-1</sup>). Since these soil were under the Eucalyptus plantation for so long the fertility status of these soils are generally low. Hence lime application is very much needed in order to enhance the fertility of soils and is very much important to get higher yields. As the laterite soils are base unsaturated soils most of the nutrients (primary and secondary) will leach because of higher infiltration rate hence need external application for higher crop growth.

### **3. Research centre mandate :**

a. Basic, Strategic and applied research in fruits, vegetables, flowers, plantation, spices, medicinal and aromatic crops with major thrust on development of varieties/ hybrids, horticultural practices, pest and disease management, nutritional aspects, farm/ orchard mechanization, post harvest and value addition Research on hi-tech and precision farming in the specified horticulture crops.

b. Develop cropping pattern to suit different orchard sizes or mono cropping as well as mixed cropping systems.

c. Frontline demonstrations of modern horticultural technologies in mandate crops and providing information know-how to farmers, line departments and NGO's.

d. Production and supply of quality planting material to farmers.

e. To promote and cater the entrepreneurial development in horticulture segment of the region and state. Impart training and education on various basic and applied horticultural aspects for the stakeholders industry of the Region/State through Horticulture Extension Education Unit (HEEU).

f. The centre has resources of various horticultural crops (Mango, Sapota, Guava, Jamun, tamarind, cashew, pumelo, Minor fruits, orchids, ARC potato etc.), takes up nursery activities and supplies quality planting materials to the stakeholders, carries out soil, plant and water analysis and concentrates on its research and extension activities. Presently developing a local seed tuber production strategy using ARC technology in potato. Apart from these, scientists of the centre are also involved in teaching activities and guidance to PG students of COH Bengaluru.

#### **4. Achievement**

##### **1. Technologies developed :**

Sl. No.	Crop	Details of technology
1.	Gerbera	Gerbera cultivars viz., Sonata, Ariana, Domblance, Kyillion were identified as better performing varieties suitable for cultivation under naturally ventilated Polyhouses in

		eastern dry zone of Karnataka
2.	Anthurium	Anthurium varieties viz., Tropical red, Xavia and Acropolises (white) were identified as suitable varieties for commercial cultivation under shade nets in eastern dry zone of Karnataka.
3.	Anthurium	Foliar application of GA3 at 600 ppm at bimonthly interval is considered as best in influencing both vegetative and floral characteristics in both cv. Xavia and cv. Tropical under shade net condition.
4.	Rose	Dutch Rose varieties suitable for cut flowers in open condition – Grandgala and Corvette for eastern dry zone
5.	Rose	A spacing of 1.5 m. x 1.0 m. with nutrition of 50:50:75 g NPK/Plant/Year improves the growth, yield and quality of Rose cv. Charisma
6.	Black Pepper	Effect of Bio-inoculants on growth parameters of black Pepper ( <i>Piper nigrum</i> L.) at nursery stage -Mixture is prepared by using 2 part of fertile soil, 1 part of sand and 1part of farm yard manure and every 1kg of nursery mixture, 2g each of Pseudomonas, VAM, <i>Trichodermaharzianium</i> and <i>Paecilomyces</i> bio-inoculants are mixed and filled in a poly bags of 6" x 4" size.
7.	Amla	For commercial production of sapota under 8mt X 8mt spacing. Cultivation of amla as a mixed crop in 8 mt X 4 mt spacing is found best compared to other crops like guava, fig, custard Apple, karonda, drum stick, curry leaf and Pomegranate in initial five years of cultivation without damaging main crop and also getting highest return with good productivity.
8.	Mango	For commercial production of mango under 8mt X 8mt spacing. Cultivation of amla as a mixed crop in 8 mt X 4 mt spacing is found best compared to other crops like guava, fig, custard apple, karonda, drum stick, curry leaf and pomegranate in initial five years of cultivation without damaging main crop and also getting highest return with good productivity.

9.	Potato	Potato- KufriHimalini variety is tolerant to late blight and high yielding compare to KufriJyothi*
10.	Cashew	Cashew- Yield gap analysis in cashew - by adopting suggested PoPs productivity can be enhanced upto 30-50 %.
11.	Anthurium and Gerbera	Inclusion of Ground bud necrosis virus (tospovirus) disease occurrence on Anthurium and gerbera to POP

\* will be updated shortly after confirmation