College Farm

About Farm

The total area of SKCHS including buildings and farms consisting of 49.355 hectares (121.96 acres) and is categorized into different blocks like wet land (5.25 acres), Botanical Garden cum germplasm collections of various horticultural crops (Instructional Farm Block A & B – 19.86 acres), Herbal Garden (5 acres), Orchard block (Block – C, 30.18 acres), Garden land (Block D, 25.2 acres), Wood land (Agroforestry 5.3 acres) and Dry Land (10 acres = 5 acres vegetable & flower blocks + 5 acres is dry land).

Farm In charges

Dr. Jeevan U.
Farm Manager
(Whole Farm)

Garden Superintend

(Block A, B and D)

Garden Superintend

(Block C-Orchard)

Horticultural crops cum germplasm collection

Crop Museum (Teaching Demo Plot Unit at Different Locations – 2 acres)

The crop museum was established with the motto of explaining the crops to the students in demo plots during respective courses. It consists of high value horticulture crops like Button rose, Tuberose, Chrysanthemum, Gladiolus, Marigold, Crossandra, Chilli, Brinjal, Okra, Ridge gourd, Pumpkin, Tomato, Capsicum, Cow pea, Dolichos bean, Cluster bean, Fenugreek, Katta palak, Mango, Citrus *Spp*., Guava, Jamun, Custard apple, Sapota, Dragon fruit, Pomegranate, Ber, Jack fruit, Star fruit, Karonda, Lime, Wood apple, Rose apple, Avocado, Spice and Plantation crops like Coconut, Arecanut, Cashew nut, Betel vine, Cocoa,

Coffee, Cardamom, Cinnamon, All spice and Nutmeg which are grown scientifically by adopting intercropping systems in fruit orchard with updated package of practices from the Dr. YSRHU.

Demonstration Units

Open Field Cultivation of Marigold

Botanical Garden (Germplasm Cum Mother Plant Block)

The botanical garden consists of 19.86 acres divided into Instructional Farm Block A and Block B. In Block A, Germplasm cum Mother block of different fruits crops like Sapota, Sweet orange and Pomegranate are maintained in 50% of the area. Around 150 different species of trees, shrubs, creepers of Rare Endangered and Threatened (RET) medicinal plants

collected from Eastern and Western Ghats of different ecological habitats is also maintained. In Block B, the germplasm of different arid fruit crops like Guava, Sweet orange Jamun, Ber, Mango, Annona *Spp*., Jack fruit, Cashew nut, Flowering trees, Coconut and various herbal plants including Medicinal and Aromatic crops are maintained.

Mother block of different Mango varieties in C block consists of 436 plants of 12 varieties like Dasheri (41), Baneshan (64), Mallika (28) Mulgoa (28), Alphonso (56), Amrapali (24), Arka Uday (30), Kesar (30), Raspuri (30), Totapuri (15) and Langra (30). Along with this, another 1188 plants of different varieties of Citrus like, Acid lime (Balaji) of 200 plants, Petluru Selection (80), Sweet orange *var*. Sathgudi (834) , Orange (Malta -10 plants), Pumello (10), Jambheri (18), Rangpur Lime (18), Coorg mandarin (18) are also present in this block. In addition to this another 5 varieties of mango comprising of Baneshan (12), Mallika (12), Mulgoa (12), Alphonso (12) and Khadar (12) were planted to develop scion blocks. Avenue plantations are done with Coconut, Red sanders, Sandal wood and Teak all along the orchard boundaries of mango and citrus.

Mother block of Pomegranate

Mother block of Guava

Mother block of Citrus species

Sweet orange orchard

In Block D, Fruit and Tree based cropping systems were established with three varieties of Guava (Allahabad Safeda - 47, Arka Mridula - 26, Arka Kiran - 20) of total 93 plants. Three varieties of Jamun (Chinthamani - 40, Dhoopdal - 14. Bahadoli - 105) of total 159 plants, Aonla - var. Krishna (14), Peanut butter fruit (34), Rose apple (25) and Sweet orange (36) and Pomelo (15). Total 430 plants were planted on other side of the same block consists of Crop Combinations based on spacing (10x10m) such as Tamarind (98) and Custard apple (101) were planted. In Four Crops Combination system, Citrus (24), Red Sanders (24), Custard apple (24), Sandal wood (96) of total 168 plants were planted. Besides four mango Varieties like Dasheri (18), Mallika (18), Totapuri (20), Kesar (10) of total 66 plants were planted at 10 x10 m spacing.

Coffee, Cahew nut and Peanut butterfruit

Rose apple and Sandal wood garden


Cardamom and Jamun plants

Woodland (Land covered with forest):

This 5.3 acre field is a low-density forest land having plenty of sunlight and limited shade. Attempts were made with teak, red sanders and sandalwood grown in this field supporting understory herbaceous grasses required for the cattle and small ruminants being raised in the campus.

Nursery unit of Important Horticulture Crops

To propagate different horticulture crops, we have two poly houses of 320 sq m, 256 sq m and two shade houses of 300 sq m and 576sq m with one potting shed is present in our farm. The propagules would be collected from our scion banks located in different blocks. The scion banks are maintained properly with timely intercultural operations. Required quantities of rootstocks of different crops are being raised under nursery and utilized for various propagation techniques. SKCHS farm enriched with good germplasm collection of horticultural crops. The scion bank consists of commercial crops such as Mango – Alphanso, Mallika, Baneshan, Dasheri, Raspuri, Guava – Allahabad Safed, Arka Kiran and Arka Mridula, Pomegranate – Bhagwa, Jamun – Dhupdal, Chintamani – 1, Bahadoli, Jack fruit - Singapore Wada, Sadananda, Panruthi, Prakash Chandra, Palur 1 & 2, Rudrakshi Red, Rudrakshi yellow, Lalbagh Raj, Lalbagh madhura, Ramachandra, Kanaka, Bairachandra and Sira local, Five species of *Annona* - Hanumanphal, Ramphal, Sitaphal, Lakshmanphal and one wild spp (Resistant to mealy bug), Citrus groups like Sweet orange - Sathgudi, Orange Malta, Acid lime – Balaji, Petlur Selection, Pumello, Jambheri, Rangapur lime, Coorg mandarin, Peanut butter fruit, Tamarind variety Anantha Rudhira and hundred types of various ornamental plants consists of hedge plants, Shrubs, Flowering cum avenue trees and Annuals along with mulberry variety V-1. The rootstocks of different crops like Mango,

Citrus, Guava, Khirni, Jamun are raised by collecting the seeds from the local market and processing units.




Nursery Activities

Nursery Activities

Protected cultivation of Horticultural crops

We have protected structures in our farm like one naturally ventilated single span of 128 sq. m., double span poly house (128 sq. m), medium (384 sq. m.), low (400 sq. m.) and high cost (256 sq. m.) structures are present. Presently these structures are utilized for cultivation of high value and low volume horticulture crops in a research mode of the Rayalseema region of Andhra Pradesh.

European cucumber variety KPCH-1 is grown in polyhouse as a part of experiential learning programme: presently three varieties of rose viz., Arka pride, Arka Swadesh and Arka savi are cultivated. Previously, in low cost structures marigold crop was cultivated. At present chrysanthemum crop of two improved varieties are cultivated for the benefit of the students and farmers. One medium cost shade house is exclusively reserved for plant propagation and nursery activities of different horticulture crops. Fan and pad system of polyhouse is also present and it is used for cultivation of most sensitive crops.

Naturally ventilated single span polyhouse

Naturally ventilated double span polyhouse

Low cost structure

Medium cost structure


European Cucumber Cultivation Under Polyhouse Variety KPCH-1


Marigold Cultivation Under Shade House as Crop rotation method.

Soil less cultivation in pots, grow bags and in trenches

Integrated Farming System Model

At present, the farmers concentrate mainly on crop production which is subjected to a high degree of uncertainty in income and employment to the farmers. In this contest, it is imperative to evolve suitable strategy for augmenting the income of a farm.

Integration of various horticultural enterprises *viz*., crops, animal husbandry, fishery, forestry etc. have great potentialities in the economy. These enterprises not only supplement the incomes of the farmers but also help in increasing the family labour employment.

1. The IFS approach introduces a change in the farming techniques for maximum production and takes care of optimal utilization of resources.
2. The farm wastes are recycled for productive purposes.
3. A judicious mix of horticulture commodities, dairy, poultry, piggery, fishery, sericulture etc. would bring prosperity.

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<tr><td>Fishery cum poultry shed</td><td>Rohu Fish</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Cattle shed</td><td>Brinjal Crop</td></tr>
<tr><td colspan="2">Cropping (0.6 ac) + fishery (48 sq m.) + poultry (20 layers) + 2 cattle + 5 sheep</td></tr>
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Cropping was undertaken in 0.6 ac (Chilli, Brinjal, Leafy vegetables and Tomato) and 0.9 ac was allotted for fish pond, the poultry shed was placed above the pond. The poultry unit comprised of 20 chicks and fisheries comprised of 300 polyculture fingerlings (Catla 150, Rohu 150), 2 cattle and 5 sheep are maintained with feed and fodder.

Composting unit and Vermicomposting

Vermicompost is known to be the world's best fertilizer. Vermicomposting is a method of preparing enriched compost with the use of earthworms and one of the easiest methods to recycle agricultural wastes to produce quality compost. Pit method of composting was followed for preparing compost by constructing 6 permanent pits of 9x4x2 feet dimensions. The collected organic waste was allowed to decompose for 10-15 days. After 15 days a layer of dried neem leaves was spread at the bottom of the pit that acts as repellant. Then a layer of chopped field and kitchen waste was spread above that. A layer of cow dung was spread over the first layer. The same pattern of was followed till the pit was filled. Red earthworms were released on the upper layer of the pit. Beds were kept moist by sprinkling water Irrigation of the bed was done once a day.

Vermiwash was collected from 20^{th} day after releasing the worms which was diluted and applied to the field. Compost gets ready in 40 days. Watering was stopped 4 days before harvesting and then the top layers were loosened and made into heaps. The harvest was sieved the next day. It is black, stable, fine granular organic manure that enriches soil quality by improving its physicochemical and biological properties. It is highly useful in raising seedlings and for crop production and is becoming popular as a major component of organic farming system.

Eisenia foetida ***Eudrilus eugeniae***

Meteorology unit

Meteorology unit has different weather recording instruments like sunshine recorder to measure the sunshine hours, wind vane for wind direction, anemometer to record the wind speed, rain gauge to measure the rainfall, dew gauge for dewfall intensity, open pan evaporimeter to measure daily evaporation and dry and wet bulb thermometer is used to measure the air temperature and relative humidity.

Meteorology observatory unit