

**Guidelines for implementing the organic farming project,
as part of MOOC course for Under Graduate students of
Mahatma Gandhi University**

Objective

To enable the Under Graduate students of Mahatma Gandhi University to understand the know-how of organic farming activities and thereby acquiring the related skill sets.

Implementation Team

Affiliated Colleges shall nominate one Faculty member as Coordinator for the purpose of conducting MOOC course. For each department/course in a college, one faculty member shall be the Mentor of the course. The committee comprising of Coordinator and Mentors shall be responsible for the conduct of MOOC course, including the Project work and the online examination to be conducted using the computer lab facility of the college. Mentors have the immediate responsibility to guide the students regarding the implementation of the project work as well assessing the performance of students, subject to the guidelines put forward by the University.

Beneficiaries

All UG Students in the 240 plus affiliated colleges, from 2020 admission onwards.

Location

The location of the project shall either be the colleges concerned or the homestead of the beneficiaries. A 20 square meter (half a cent) land area with abundant sunshine and good drainage is to be selected for the project work.

Crops

The students may select five crops from the following crop cafeteria:

Vegetable crops: Amaranthus, ladies finger, cowpea, brinjal and chillies

Annual spices: Ginger , turmeric.

Tuber crops: Amorphophallus, tapioca.

Season

Crop season of February-March to July- August is desirable. Period during which farming to be done must be based on the prevailing climatic conditions. Rainfall and atmospheric temperature are to be considered while selecting the season. Cultivation in grow bags is possible irrespective of the season, if timely irrigation is assured.

Agricultural implements

Spade, hand hoe, scythe, hand sprayers, baskets and knapsack sprayers are the implements required.

Manures

Organic manures : Compost, cattle manure, poultry manure, goat manure etc.

Concentrated manures: Ground nut cake, neem cake, bone meal, coconut oil cake

Green leaf manure: Glyricidia, tender weed shoots .

Fermented Bio slurries: Fish aminoacid, Egg aminoacid, Jeevamrutham, Panchagavyam etc.

Bio fertilizers

Azotobacter, Rhizobium, Azospirillum, Phospho bacteria, VAM etc.

Biocontrol agents

Botanical pesticides: Neem oil, Neem garlic emulsion, Tobacco decoction.

Bio pesticides: Verticillium, Beuveria, Trichoderma, Bacillus thuringiensis, Pseudomonas.

Seeds and planting materials

Seeds and seedlings of Amaranthus, ladies finger, cowpea, brinjal and chillies can be used as the planting materials. Rhizomes of Ginger and turmeric are used for planting. For tapioca, stem cuttings are used while tuber cut pieces are used as planting material of Amorphophallus . Seed materials are available with farms and research stations under the department of agriculture and Kerala Agricultural University. Seeds are also available with the vegetable and fruit promotion council (VFPCCK) and Krishibhavans.

Crop management

Land preparation, liming, manuring, preparation of potting mixture, preparation of fermented Bio slurries, seeding/planting, pests and disease management, water management and harvest are the major management practices.

Training programmes

University will provide training on the project work to the co-ordinators. Co-ordinators shall train the Mentors and they in turn shall impart training to the students.

Observations and data collection

The students shall closely monitor the growth and development of the crops and collect the data regularly. The data generated are to be submitted to the Mentors. The observations and the data collected shall include the day to day activities of the project work from initial land preparation to the final harvest. Height of plants at 15 days interval, no. of branches, date of first flowering, date of fruiting, number of fruits, harvest details, yield etc. are to be recorded in detail. Photos of the crop at different growth stages and during harvest are to be included in the report. Pest and disease incidence and the control measures adopted are to be reported. The students may report their project experiences including the difficulties faced and the alleviation measures adopted.

College level assessment

A seminar at the college level is to be organized in which the project work will be evaluated based on a power point presentation by the concerned student.