

ST THOMAS COLLEGE, KOZHENCHERRY
MOOC ON ORGANIC FARMING COMMITTEE

ACTION PLAN

The Massive Open Online Course (MOOC) on Organic Farming is a novel program introduced by MG University in accordance with the social initiative of The Government of Kerala to transform Kerala into an organic state under its 'Haritha Keralam' Mission.

It aims to make **our state self-sufficient** with regards to the production of 'safe to eat vegetables and fruits' and to help develop a positive attitude among students towards organic farming and sustainable agricultural practices.

SIGNIFICANCE OF THIS COURSE

The COVID-19 Pandemic has triggered a crisis which has made us all reflect on how our actions have been affecting the environment. With the constant lockdowns and the fear of contracting the deadly Corona Virus, people have started to embrace the importance of becoming self-reliant, especially in terms of food resources. Given how greatly dependent our society is on agriculture, it is important that we adopt sustainable practices that make us self-sufficient and economically secure.

Organic farming is a healthy solution to this problem. Creating an organic farm at home or in a nearby area will help us to stay self-reliant, consume healthy and nutritious food at home, and protect our environment in the process.

As the youth are the future of any society, any long lasting change begins with you. Hence, it is important that we **learn the life-skill of eco-friendly farming techniques to bring about this transformation.**

This added credit course on Organic Farming is a step in that direction.

This added credit course is **mandatory** for all Undergraduate students.

The course comprises of 2 parts: Project work and Online exam.

According to the University guidelines, all the students are required to immediately begin with the Project work. The Project work will be marked on the basis of the following criteria:

- 1. Project proposal**
- 2. Project execution/implementation**
- 3. Time adherence to each stage of the process**
- 4. Challenges faced and the steps taken to overcome the problem**
- 5. The Final Project Report**

This Action Plan will give a step by step guidance to students on how to undertake the Project during Stage 1.

Stage 1

During the 1st Stage, the students have to do the following:

1. Create a Project proposal
2. Procure the required materials
3. Create a Potting Mixture

I. Creating a Project proposal

The students are required to fill out a project proposal which would be circulated amongst them. The students should fill in the following information:

- The seeds they have selected for cultivation
- How they plan to undertake the project
- The tools, fertilizers, etc they are planning to use
- The challenges they might face in undertaking the project
- How they plan to overcome the challenges

II. Required materials:

1. Growbags/Cement sacks/Rice sacks – 25 no. (Price range: 20-25/-)
 - Size should be: 40x24x24 cm
 - Growbags should have holes at the bottom
2. Seeds (Select any 5 of the following):

CROP	VARIETY	PLANTING MATERIAL	QUANTITY	SPACING
1. Amaranthus (ചീര)	Arun, Mohini	Seedlings (തൈകൾ)	8 g/ cent	20X20 cm
2. Bhindi(വെണ്ട)	Arka-anamika, Kiran, Salkeerti	Seed	30 g/cent	60x30 cm
3. Bush Cowpea (കുറ്റിച്ചയർ)	Kanakamani, Anaswara, Kairali	Seed	60 g/ cent	45x15 cm
4. Brinjal (വഴുതന്ന)	Shwetha, Haritha	Seedlings (തൈകൾ)	2 g/cent	60x75 cm
5. Chillies (മുളക്)	Jwala, Ujjwala	Seedlings (തൈകൾ)	4 g/cent	45x45 cm
6. Ginger (ഇഞ്ചി) (can grow 4 or 5 in 1 growbag)	Varada, Athira	Rhizome	6 kg/cent	20x20 cm

7. Turmeric (മഞ്ഞൾ)	Suvarna, Suguna	Rhizome	10 kg/cent	20x20 cm
8. Amorphophallus (ഘ്രിന)	Sreepadma, Sreeathira	Tuber	40 kg/cent	1x1 m
9. Cassava (കപ്പ)	Vallayani hriswa, Kalpaka	Stem cuttings	40 number per cent	1x1 m

3. **Lime, dolomite (കുമ്മായം)** (only for open field)
(1kg for 1 cent)

4. **Organic manure:**

It would include compost, cow dung, goat dung manure, poultry manure, oil cakes (പിണ്ണാക്ക്), green manure, etc.

5. **Pseudomonas** (20gms/litre)

III. Creating the Potting Mixture:

Growbag:

1. Create a Potting mixture adding gravel, sand and organic manure in 1:1:1 ratio.
2. Sand can be replaced with rice husk and coir pith compost
3. Fill 3/4th of the growbag with the potting mixture.

In case of an open area

1. plough or dig the field first.
2. Add 1kg lime(കുമ്മായം) for one cent. Leave the field for a week.
3. Apply organic manure
4. Form basins/pits.
5. Plant the seedlings/seeds.

Planting process

1. Soak the seeds in water for 6-12 hours
2. Treat the seeds with Pseudomonas (20gms/litre) (helps to fight disease)
3. In case of seedling, plant the seedlings without disturbing the plants.
4. Shade may be provided for a week.
5. Water the plant in the morning and evening.

ST THOMAS COLLEGE, KOZHENCHERRY
MOOC ON ORGANIC FARMING COMMITTEE

ACTION PLAN- PART II

The Action Plan Part- II will guide the students on the activities they will have to undertake in Stage 2 of MOOC on Organic Farming, now that we have completed Stage 1 of the Project. **The Mentors are required to review the progress of the students until now.**

The students will have to undertake the following activities in Stage II:

- 1. Record their observations of the growth of the plants**
- 2. Make kitchen compost**

I. Record the Observations of the growth of the plants

- Every 15 days, students have to record the height of the plant, and any new development in the growth stage of the plant.
- They also need to record the following dates: germination of the seed, formation of the 1st leaf, formation of the 1st flower bud, flowering of the bud, etc (The details of what needs to be recorded has been mentioned in the Observation chart circulated to the students)
- **To record their observations, students can use the observation chart prepared by the MOOC Committee which has been circulated to them by their Mentors.**

NOTE: Students have to keep photographic evidence of their observations, as it will be required for submitting the final project.

II. Make kitchen compost

Composting is the natural process of recycling organic matter, such as dry leaves and food wastes, into a valuable fertilizer that can enrich soil and plants. Compost is added to the soil to help plants grow.

The aim here is to make organic compost at home using kitchen waste, which is both inexpensive and environment friendly. By making Compost using kitchen waste, students can reduce the amount of waste that is generated at their homes by recycling it and using it productively as organic fertilizers.

Materials required:

1. Biodegradable kitchen waste such as fruits and vegetable waste, food waste, egg shells, tea leaves, etc
2. Brown materials which include dry leaves, dead plants, twigs, sawdust, straw, old and dry flowers, shredded newspaper, hay, etc

Do NOT use the following for reasons of health, hygiene and the inability to break down: Meat and meat waste, Bones, Fish and fish bones, Oil or fat, Pet waste (except for manure of herbivorous creatures such as rabbits)

3. Compost bin/old buckets, etc where you can dump the waste.

How to make Compost at home:

1. Take a compost bin/old bucket/pot with 4-5 holes in the container to let the air in.
2. Fill the bottom of the container with a layer of soil.
3. Now start adding wet waste and dry waste in an alternative manner by 1st adding food waste such as vegetable, fruit waste and then adding a layer of dry brown waste.
4. Cover this container with any material such as plastic sheet or a wooden plank to help it retain moisture and heat.
5. Within a month or two, the waste will start forming compost.



Figure 1: Picture Courtesy: RISE Foundation (NGO)