

ORGANIC FARMING

Semester	Subject code	Category	Lecture		Theory		Practical		Credits
			Total hrs	Hrs/ week	Total hrs	Hrs/ week	Total hrs	Hrs/ week	
I	POCMB1SS	Self study paper	0	0	0	0	0	0	2

UNIT- I

Scope, Definition and concept of organic farming. Components of organic farming and their role in sustainable crop production. Nutrient management in organic farming – Crop rotation. Integrated intensive Farming system (IIFS).

UNIT-II

Traditional organic farming:- Manures – Bulky organic manures:- Farmyard manure, compost - urban compost, Night-soil. Concentrated organic manures – Oil cakes, Fishmeal. Green manure – Sesbania sps., Crotalaria juncea. Green leafmanure.

UNIT-III

Non-Traditional organic farming:- Bio fertilizers, Rhizobium, Azotobacter, Azospirillum, B.G.A., Azolla, Ecto & Endo Mycorrhiza, VAM – Potash mobilize (Frateruria aurentia)- Liquid biofertilizers - Mass cultivation, Field application, cost effectiveness. Vermi – Compost - Methods. Aquatic weeds.

UNIT- IV

Biogas technology for organic farming – Composition of biogas slurry- Agronomic importance. Waste water treatment method and its uses for organic farming – Macrophyte treatment. Agricultural waste management- Crop waste – cattle, poultry and pig waste- Farm waste recycling.

UNIT-V

Pest and disease management in organic farming – Trichogramma sps., NPV, Beauveria bassiana, Metarhizium anisopliae. Weed management – Living mulch, organic mulches and biological weed control. Organic post harvest technologies. Organic farm inputs techniques: Panchagavya and Dasagavya. Organic certification and accreditation process of organic product.

REFERENCE BOOKS:

1. Subba Rao NS (2004). Soil Microbiology. Fourth edition, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
2. Rangaswami G and Bagyaraj DJ (2002). Agricultural Microbiology. Second edition, PHI Learning (P) Ltd., New Delhi.
3. Dahama, A.K. (2002). Organic Farming for sustainable agriculture. Agrobios (India).
4. Arun K.Sharma, (2003). Biofertilizers for Sustainable Agriculture. Agrobios (India).
5. Subba Rao NS (1997). Biofertilizer in Agriculture and Forestry, 3rd edition, Oxford & IBU Publications.
6. Dubey RC (2005). A Text of Biotechnology. Multicolor Illustrative edition, S.Chand and Company Ltd., New Delhi.

WEB SOURCES:

1. http://www.agritech.tnau.ac.in/org_farm/orgfarm_index.html

SYLLABUS DESIGNER:

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