

EGRA SARADA SHASHI BHUSAN COLLEGE

ESTD. : 1968

(Re-accredited by NAAC with - 'B' Grade with a CGPA of 2.32)

Post – Egra:Dist – Purba Medinipur (West Bengal):Pin – 721429.

President : Tarun Kumar Maity, M.L.A., W.B.

Principal : Dr. Dipak Kumar Tamili.

Web site - www.egrassbcollege.net : E-mail – info@egrassbcollege.net / info@egrassbcollege.org.in

☎ – 03220-244073 / 245557

Fax – 03220245867.

Memo No:

Date – 02.01.2023

It is to notify that the Department of Botany, Egra S.S.B College is going to introduce a Certificate Course, Title: Horticulture & Mushroom Cultivation , Theory & Practical from January to March, 2023. Interested Students are advised to contact with H.O.D, Department of Botany to enroll their names for this course. First come 1st preference.

Seat Capacity: 40

Mamfaj Chatur
(Signature)
Head of the Department of Botany
Egra S.S.B. College
Egra S.S.B. College
Head of the Department of Botany
(Signature)


Principal
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Memo No.-

Date- 02.01.2023

Name of the certificate course: Horticulture & Mushroom cultivation

No. of the course: one

Duration of the course: Three Months

Date of inauguration: 07.02.2023

Date of completion: 30.05.2023

Syllabus of the course:

EGRA SARADA SHASHI BHUSAN COLLEGE

CERTIFICATE COURSE ON "Horticulture & Mushroom cultivation"

SESSION: 2023

SYLLABUS

DURATION: Three Months

Course	Course Name	Teaching Scheme in hours per week	
		Lectures	Practical
Certificate Course	Horticulture & Mushroom cultivation		
	Unit:1 Fundamentals of Horticulture Economic importance and classification of horticultural crops and their culture and nutritive value, area and production, exports and imports, fruit and vegetable zones of India and of different states, nursery management practices, soil and climate, vegetable gardens, nutrition and kitchen garden and other types of gardens – principles, planning and layout, management of orchards, planting systems and planting densities. Production and practices for fruit, vegetable and floriculture crops, nursery techniques and their management..	2	



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	<p>Unit:2 Post Harvest Management of Horticultural Crops Importance of post-harvest technology in horticultural crops. Maturity indices, harvesting, handling, grading of fruits, vegetables, cut flowers, plantation crops, medicinal and aromatic plants.Pre-harvest factors affecting quality, factors responsible for deterioration of horticultural produce, physiological and bio-chemical changes, hardening and delaying ripening process.Post-harvest treatments of horticultural crops.Quality parameters and specification. Structure of fruits, vegetables and cut flowers related to physiological changes after harvest mushrooms.</p>	3	
	<p>Unit:3 Principles of Landscape Gardening Principles and elements of landscape design, plant material for landscaping,symbols, tools and implements used in landscape design, layout of formal gardens, informalgardens, special type of gardens (bog garden, sunken garden, terrace garden, rock garden)and designing of conservatory and lathe house. Landscape design for specific areas.</p>		3
	<p>Unit:4 : Plantation Crops History and development, scope and importance, area and production, export and importpotential, role in national and state economy, uses, industrial importance, by productsutilization, soil and climate, varieties, propagation: principles and practices of seed,vegetative and micro-propagation, planting systems and method</p>	3	
	<p>Unit:5 Processing of Horticultural Crops Importance and scope of fruit and vegetable preservation industry in India, food pipe line,losses in post-harvest operations, unit operations in food processing.Principles andguidelines for the location of processing units.Principles and methods of preservation by</p>	2	3

	<p>heatpasteurization, canning, bottling. Methods of preparation of juices, squashes, syrups, cordials and fermented beverages. Jam, jelly and marmalade. Preservation by sugar and chemicals, candies, crystallized fruits, preserves chemical preservatives, preservation with salt and vinegar, pickling, chutneys and sauces, tomato and mushrooms, freezing preservation. Processing of plantation crops, products, spoilage in processed foods, quality control of processed products, Govt. policy on import and export of processed fruits. Food laws.</p>		
	<p>Unit:6 Mushroom Culture- Introduction Introduction, history. Nutritional and medicinal value of edible mushrooms; Poisonous mushrooms. Types of edible mushrooms available in India - Volvariella volvacea, Pleurotus citrinopileatus, Agaricus bisporus.</p>	2	
	<p>Unit:7 Theory/ concept of Mushroom Culture Definition and characteristics of mushroom. Morphology and life cycle of Mushroom. Identification and classification of mushroom. Nutritional and medicinal value of edible mushrooms, poisonous mushrooms.</p>	2	1
	<p>Unit:8 Cultivation technology Infrastructure: substrates (locally available) Polythene bag, vessels, Inoculation hook, inoculation loop, low cost stove, sieves, culture rack, mushroom unit (Thatched house) water sprayer, tray, small polythene bag. Pure culture: Medium, sterilization, preparation of spawn, multiplication. Mushroom bed preparation - paddy straw, sugarcane trash, maize straw, banana leaves. Factors affecting the mushroom bed preparation - Low cost technology, Composting technology in mushroom production.</p>		3
	<p>Unit:9 Storage and nutrition Short-term storage (Refrigeration</p>		2

	upto 24 hours) Long term Storage (canning, pickels, papads), drying, storage in saltsolutions. Nutrition - Proteins - amino acids, mineral elements nutrition - Carbohydrates, Crude fibre content - Vitamins.		
	Unit:10 Food Preparation Types of foods prepared from mushroom.	1	
	Unit:11 Cost benefit ratio Marketing in India and abroad, Export Value.	1	
	Unit:12 Visit to Mushroom Culture and Horticulture Centres/ Farms for: Process involved in crop and mushroom cultivation Types and varieties of mushroom. Identification of edible and poisonous mushroom Marketing. preparation of fertilizer mixtures and field application, preparation and application of growth regulators, layout of different irrigation systems, identification and management of nutritional disorder in fruits and vegetables, assessment of bearing habits, maturity standards, harvesting, grading, packaging and storage.		2

Class Routine:

EGRA SARADA SASHI BHUSAN COLLEGE
DEPARTMENT OF BOTANY
CERTIFICATE COURSE ON " Horticulture & Mushroom cultivation"
SESSION: 2023
DATE: 07.02.2023-30.05.2023

DAY	10.15-11.15	11.15-12.15	12.15-1.15	1.15-2.15	2.15-3.15	3.15-4.15	4.15-5.15
MON							
TUE		Theory(MK)	Theory(RB)	Practical(RDA)			
WED		Theory(MP)	Theory(MM)	Theory(MK)			
THURS		Theory(MP)	Theory(RDA)	Theory(MK)			
FRI		Theory(MK)	Theory(SR)	Practical(MM)			
SAT		Theory(MM)	Theory(BP)	Practical(RDA)			

MP- Prof. Maniklal Pati ; MK-Prof. Mamtaj Khatun; MM- Mr. Manoj Mukherjee; RDA- Mr. Ramkrishna Das Adhikari
SR- Prof. Sambhu Rana; RB- Prof. Rachana Bera; BP- Prof Biswajit Pradhan




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Course Outcomes:

By successfully completing the course, students will able to:

- Candidates interested in working in agriculture will benefit greatly from this training. This course will teach them how to farm a variety of crop plants.
- Candidates who successfully complete this course will be prepared to undertake any type of agricultural research in the future. They can improve seeds, study breeding conditions, and conduct a variety of other studies.
- Candidates can work on their own farms and horticulture gardens. They can create their own farming companies.
- This course provides numerous opportunities for government careers. Candidates with a degree in Horticulture will always be in demand in the job market because farming will always be an essential sector.
- Understanding mushrooms, types (edible & poisonous) and mushroom production.
- Learning, cultivation of different edible mushrooms.
- Introduction with climatic requirements of mushroom cultivation.
- Knowledge of harvesting and post harvesting processes of mushroom.




Principal
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