

Lecture Plan

Name of the college: Government college of arts science and commerce Sanquelim-Goa								
Name of Faculty: Anuja Naik			Subject: Botany (Economic and Medicinal botany)					
Paper code: BOD 103			Program/Course: T.Y B.Sc.		Division: A			
Academic year: 2024 - 2025			Semester: V		Total Lectures: 45			
Course Objectives: This course is designed to give an overview of how plants are indispensable to humans. It gives a broad exposure of the various aspects of plants such as their origin, plant resource utilization, conservation and ethnobotany.								
Course Learning Outcome: Gain knowledge of various economically and medicinally important plant species. Utilize the knowledge of cultivation and uses of plants in day to day life. Have an insight on crop research organizations involved in improvement of different economically important crops								
Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Learning outcome	Exercise/ assignment	ICT Tools	Reference books
July	17/07/2024	20/07/2024	1	Unit 1:concept of centre of origin; wild relatives of cultivated plants. Unit 2: Identification, brief botanical description, cultivation	Students are able to identify and recognize the different centers of the origin of wild cultivate species. Students are able Identify , describe	Students are instructed to talk with their parents regarding the use of malt of rice and list the uses.	Power point presentation	Economi c botany by BP Pandey. Economic

				practices and utilization of the a. Cereals and millets – Rice. Wheat plant	state and list the cultivation practices and utilization of the Cereals, millets and wheat plant.			botany by V.Verma
	21/07/2024	27/02/2021	3	Maize and Ragi plant. b. Pulses:- - Red gram and black gram black gram and green gram	Students are able Identify , describe state and list the cultivation practices and utilization of the Cereals and pulses.	Students are instructed to talk with their parents regarding different recipes of pulses		
				spices and condiments- Chilies and black pepper cinnamon, ginger turmeric and cardamom	Students are able Identify , describe state and list the cultivation practices and utilization of the Spices and condiments (chillies and black pepper) Students are able Identify , describe state and list the cultivation practices and utilization of the (cinnamon and ginger) Students are able Identify , describe		Students are instructed to talk	
	28/07/24	31/07/24	3					

					state and list the cultivation practices and utilization of the (turmeric and cardamom)	with their parents regarding different spiritual uses of turmeric.	
August	1/08/24	3/08/24	1	d. Beverages - Tea	Students are able Identify , describe state and list the cultivation practices and utilization of the Beverages (tea)		
				Coffe	Students are able Identify , describe state and list the cultivation practices and utilization of the Beverages (coffe)		
				e. Vegetable oil sources - Sesame, groundnut	Students are able Identify , describe state and list the cultivation practices and utilization of the Vegetable oil source (sesame and groundnut)		
	5/08/24	10/08/24	3	soybean, coconut	Students are able Identify , describe state and list the cultivation practices and utilization of the Vegetable oil source (soybean and coconut)		

			mustard (including extraction)	Students are able Identify , describe state and list the cultivation practices and utilization of the Vegetable oil source (mustard)		
			f. Fibre yielding plants - Cotton, coir.	Students are able Identify , describe state and list the cultivation practices and utilization of the Fibre yielding plants (cotton. coir)		
12/08/24	17/08/24	3	jute and agave (including types of fibres and extraction).	Students are able Identify , describe state and list the cultivation practices and utilization of the Fibre yielding plants (jute and agave)	Students were asked to extract the fiber from agave leaf.	
			g. Fruit crops - Mango, jackfruit,	Students are able Identify , describe state and list the cultivation practices and utilization of the Fruit crop (mango and jackfruit)		
19/08/24	24/08/24	3	banana, cashew	Students are able Identify , describe state and list the		

				cultivation practices and utilization of the Fruit crop (banana and cashew)		
			pineapple and papaya	Students are able Identify , describe state and list the cultivation practices and utilization of the Fruit crop (pineapple and papaya)		
			h. Vegetable crops - Red amaranth,	Students are able Identify , describe state and list the cultivation practices and utilization of the Vegetable crops(red amaranth)		
			radish, knol-khol	Students are able Identify , describe state and list the cultivation practices and utilization of the Vegetable crops(radish , khol-khol)		
26/08/24	31/08/24	3	okhra	Students are able Identify , describe state and list the cultivation practices and		

					utilization of the Vegetable crops(okhra)		
September				i. Sugar and starch crops - Sugarcane	Students are able Identify , describe state and list the cultivation practices and utilization of the Sugar and starch crop(sugarcane)		
	2/09/24	7/09/24	2	potato	Students are able Identify , describe state and list the cultivation practices and utilization of the Sugar and starch crop(potato)		
	09/09/24	14/09/24	1	yam.	Students are able Identify , describe state and list the cultivation practices and utilization of the Sugar and starch crop(yam)		
				j. Rubber yielding plants - Hevea brasiliensis (including tapping and processing)	Students are able Identify , describe state and list the cultivation practices and utilization of the Rubber yielding plant (Hevea , brasiliensis)		
	16/09/24	21/09/24	3	k. Timber plants - Matti,	Students are able Identify , describe		

			Sailo,	state and list the cultivation practices and utilization of the Rubber yielding plant (timber, matti, sailo)		
			Shisham	Students are able Identify , describe state and list the cultivation practices and utilization of the Rubber yielding plant (shisham)		
			Bamboo (including wood properties)	Students are able Identify , describe state and list the cultivation practices and utilization of the Rubber yielding plant (bamboo)		
			I. Miscellaneous - Dye (Bixa orellana), Essential oil (Eucalyptus)	Students are able Identify , describe state and list the cultivation practices and utilization of the miscellaneous (Bixa orellana), Essential oil (Eucalyptus)		
23/09/24	28/09/24	3	Insecticidal (Neem)	Students are able Identify , describe state and list the cultivation practices and		

					utilization of the miscellaneous insectisidal(neem)		
October				Unit 3: A brief account of the chief chemical constituents and uses of the following plant drugs used in indigenous and allopathic systems of medicine: Hemidesmus indicus, Garcinia indica,	Students are able to list the chief chemical constituents and uses of the plants used in indigenous and allopathic systems of medicine: Hemidesmus indicus, Garcinia indica,		
	1/10/24	5/10/24	2	Boerhaavia diffusa, Alstonia scholaris, Datura metel	Students are able to list the chief chemical constituents and uses of the plants used in indigenous and allopathic systems of medicine: Boerhaavia diffusa, Alstonia scholaris, Datura metel		
	7/10/24	12/10/24	3	Holarrhena antidysenterica , Piper longum, Syzygium cumini,	Students are able to list the chief chemical constituents and uses of the plants used in		

				indigenous and allopathic systems of medicine: Holarrhena antidysenterica, Piper longum, Syzygium cumini,			
				Strychnos nux-vomica, Terminalia bellerica.	Students are able to list the chief chemical constituents and uses of the plants used in indigenous and allopathic systems of medicine: Strychnos nux-vomica, Terminalia bellerica.		
				Adathoda vasica and Tinospora cordifolia.	Students are able to list the chief chemical constituents and uses of the plants used in indigenous and allopathic systems of medicine: Adathoda vasica and Tinospora cordifolia.		
	14/10/24	19/10/24	3	Unit 4: Brief account of research	Students are able to describe the different		

				organisations involved in improvement of different crops in India: ICAR	research organization involve in improvement of crops such as ICAR		
				ICRISAT	Students are able to describe the different research organization involve in improvement of crops such as ICRISAT		
				CRRI	Students are able to describe the different research organization involve in improvement of crops such as CRRI		
	21/10/24	22/10/24	1	SBRI	Students are able to describe the different research organization involve in improvement of crops such as SBRI		

