

The Ministry of Higher Education

& Scientific Research



University: Diyala College: Agriculture Department: Horticulture and landscaping Stage: Fourth Lecturer name: Mohammed Taha Haraz Scientific title: Teacher Qualification: PhD Place of work: College of Agriculture

Flow up of implementation celli pass play

Course Instructor	Mohammed Taha Haraz						
E-mail	ztmm84@gmail.com						
Title	Fertilizers and soil fertility						
Course Coordinator	2 nd semester (spring)						
Course Objective	The aim of studying fertilizers and soil fertility is to enhance agriculture productivity and ensure sustainable crop production while maintaining soil health						
Course Description	This course provides a comprehensive understanding of soil nutrient dynamics, factors affecting soil fertility, and methods for evaluating and managing soil health.						
Textbook	 Ali, Nour al-Din Shawqi, 2010, Fertilizer Technologies and Their Uses, College of Agriculture, University of Baghd (under publication) Al-Naimi, Saadallah (1999) Fertilizers and soil fertility. Ministry of Higher Education and Scientific Research, University of Mosul. Hassan, Nouri Abdel Qader, Hassan Al-Dulaimi, and Latif Al-Ithawi, 1990. Soil fertility and fertilizers, Ministry of Higher Education and Scientific Research. Baghdad University. Awad, Kazem Mashhout, 1984. Practical tests of fertilizers and soil fertility. Albasrah university 						
Course	Theoretical semester tests %	Practical semester tests %	Quizzes %	Final practical test %	Final Exam %		
	(25%)	(10%)	(5%)	20%	(40%)		
General Notes	Final grade 100%						

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Week	Date	Topics Covered	Practical Part	Note
1		Fostilizons their types and alossificat	Fertilizer technologies	
			Fertilizers	
		Terunzers, men types and classificat	Some chemical principles associated	
			with fertilizers	
2		Nitrogon fortilizors	Nitrogen	
2		Niuogen ierunzeis	Simple nitrogen fertilizers	
3			Phosphorus	
	Phosphate fertilizers.		Phosphate fertilizers	
			Simple mineral phosphate fertilizers	
	Fertilizers containing potassium	Potassium		
		Fertilizers containing potassium	Potash fertilizers	
4			The most important potassium fertilizers	
-		r crunzers containing potassium	used to fertilize Agricultural lands	
		Sulfur		
			Sulfur fertilizers	
5	Sulfur, calcium and magnesium fertilizers	Sulfur, calcium and magnesium	Micronutrient fertilizers	
6	6 Micronutrient fertilizers		Iron fertilizer Fe	
			Manganese Fertilizers Mn	
7		Micronutrient fertilizers	Zinc fertilizers Zn	
8		Biol Nutrients, water use and other		
		interactions		
•	Fertilizer evaluation and mixing		Boron fertilizers	
9			Copper Fertilizers Cu	
-			Alamybdenum Fertilizers Mo	
10		Nutrient management basics	Compound or mixture fertilizers	
11	Econo	Economics of using fertilizers	Advantages of compound fertilizers	
			and mixed fortilizare	
			Organia fortilizor	
	Environmental problems a	Environmental problems associated	Sources of organic fortilizors	
12	with the use of fortilizers		Conditions and specifications of good	
	with the use of fertilizers	organic fertilizer		
	Optimal use of chemical fartilizar		Calculations of the amount of added	
13		technologies in Iragi agriculture	fertilizers	
14		Semester second evan fertilizer		
	analysis Modern technologies and crop		Methods of adding solid fertilizers	
		productivity		
		Agricultural challenges and		
15		opportunities		

	Terms and concepts related to	
	fertilizers and their interactions with	
	soil	

Lecturer's signature Dr. Mohammed Taha Haraz 15/1/2025

Dean's signature Prof. Dr. Raaed Ibrahim Khalil 15/1/2025