Republic of Iraq

The Ministry Of Higher Education

& Scientific Research

بسم الله الرحمن الرحيم

University: Diyala
College: Agriculture
Department: Science Field Crops
Stage: Fourth
Lecturer name: Nadir F. Ali
Academic Status: prof.
Qualification:ph.D
Place of work: College Agriculture/ University of Diyala

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Course Instructor	**Nadir Flih Ali**				
E_mail	***Nadir Imubarak@gimal. Com***				
Title	***Plant Growth Regulatores***				
Course Coordinator	***Second course.***				
Course Objective	***Introducing the student to plant growth regulators and training him on how to calculate their concentration and method of addition*** ***Know its features and specifications , Explaining their types and defining their effect on different field crops.***				
Course Description	***1- For the student to become familiar with the most important plant growth regulators.*** ***2- The student should classify the types of growth regulators according to their groups and physiological effects.*** ***3- The student should separate the types of plant growth regulators.*** ***4- To know how to use plant growth regulators.***				
Textbook	***Plant growth regulators: theory and application. Written by: A. Dr.. Hatem Jabbar Attia A. Dr.. Khudair Abbas Jadou, printed by the Ministry of Higher Education and Scientific Research in 1999.***				
References	***Recent articles from the Internet and from specialized scientific journals, the Iraqi Journal of Agricultural Sciences, and the Virtual Library***				
Course Assessment	***final***	***report***	***coz***	***Lab***	
	%60	***%5***	***%5***	***%10***	***%20***
General Notes					

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Course weekly Outline

week	Date	Topics Covered	Lab. Experiment Assignments	Notes
		Theoretical	*Lab.*	
1	1 st week	*Types of plant growth hormones.*	*Identify plant growth regulators and hormones.*	
2	2 nd week	*Growth hormones and stem elongation.*	*How to prepare different concentrations of plant hormones.*	
3	3 rd week	*Growth hormones and apical dominance.*	*The most important commonly used plant growth regulators and method of addition.*	
4	4 th week	*Flowering and its relationship to growth hormones.*	*The effect of different concentrations of plant hormones on seed germination of cereal crops.*	
5	5 th week	*Growth hormones and photosynthesis.*	*The effect of different concentrations of plant hormones on seed germination of legume crops.*	
6	6 th week	*Growth hormones and their relationship to the transmission and distribution of nutrients in plants.*	*The effect of different concentrations of plant hormones on the germination of seeds of different crops. Experiment with pots.*	*Exam*
7	7 th week	*The effect of growth regulators on seeds.*	*The effect of different concentrations of plant hormones on the germination of seeds of different crops. Petri dish experiment.*	
8	8 th week	*The effect of growth regulators on roots.*	*The effect of different concentrations of plant hormones on the germination of seeds of different crops. A field experiment.*	
9	9 th week	*The effect of growth regulators on grain crops.*	*Showing films and slides about the effect of growth regulators on different crops.*	
10	10 th week	*The effect of growth regulators on seed legume crops.*	*Recording the observations and percentage of effect used in the sixth to tenth weeks.*	
11	11 th week	*The effect of growth regulators on fiber crops.*	*Taking measurements of germination, its speed and percentage, and the length of the root and shoot shoots.*	
12	12 th week	*The effect of growth regulators on oil crops.*	*Follow up on cultivation experiments and additions with plant growth regulators, and record*	

			observations and measurements.	
13	13 th week	*The effect of growth regulators on sugar crops.*	*Follow up on cultivation experiments and additions with plant growth regulators, and record observations and measurements.*	*Exam*
14	14 th week	*The future and uses of growth regulators.*	*Follow up on cultivation experiments and additions with plant growth regulators, and record observations and measurements.*	

Instructor Signature
Prof.Dr Nadir Flih Ali
2025/1/15

Dean Signature
Prof. Dr. Raaed Ibrahim Khalil
2025/1/15