Research Lab Sheet

Lab Name	**Cytology lab.**
Academic Year	**2021-2022**

Basic Information	
Department	**Botany and microbiology**
Location	**Fourth floor**
Total area (m^2)	**20 m^2**

Lab Members				
No. of Prof.	**No. of Ass. Prof.**	**No. of Lect.**	**No. of Ass. Lect. & Demonst.**	**No. of technicians**
1	**0**	**0**	**0**	**0**

Staff members					
#	**Name**	**Scientific degree**	**e-mail**	**Specializations**	**C.V**
1	**Ahmed Mohamed Abdelmottaleb Mazen**	**Ass. Prof.**	amalmazny@gmail.com	**Plant Physiology**	Link of homepage

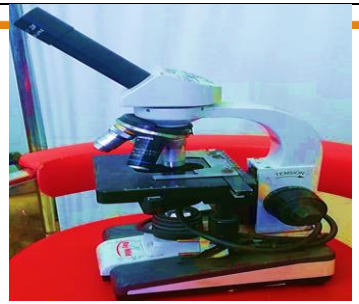
Theses produced by the Lab		
M Sc Thesis		
	Title	**Approval date**
1	Physiological studies on some aspects of bacterial pathogenesis in some plants	2006
2	Study of potential Impacts of Using Sewage Sludge in Amendment of Desert Reclaimed Soils on some Soil Properties and Physiological Aspects in Cultivated Plants.	2007
3	Physiological and ultrastructural studies on Calcium oxalate crystal formation in some plants	2008
4	Assment of Physiological performance and growth of some crop Plants during biocontrol of their mealbug pest using entomopathogenic fngus, *Beuveria bassiana*.	2021
5	Study of ability of *Piriformospora indica* to improve productivity and salinity stress tolerance of some Egyptian medicinal and aromatic plants.	2021
Ph.D. Thesis		
1	Study of Conditioning Effect of Hydrogels on Some Physical and Chemical Properties of Sandy Soil and Some Physiological Aspects in Cultivated Plants.	2011
2	Study of biodegradative ability of some bacteria isolated from Sohag soil on the insecticide *Lannate*.	2012
3	Physiological studies on growth promotive and stress alleviatory effects of the endophytic fungus *Piriformospora indica* on some crop plants.	2015

Articles produced by the Lab	
	Title
1	**Mazen, A. M., El-Maghraby, O. M. O., Nafady, A. M., Ebaid, S., Manzar R. (2021):** Promoting effect of Piriformospora indica on growth and some physiological aspects of fenugreek (Trigonella foenum-graecum L.) under salt stress Journal of Basic & Applied Mycology (Egypt) 12 43-59
2	**Mazen A. Hussen G., El-Gepaly H. and Omar M. (2020):** Determination of certain growth parameters of cotton (Gossypium barbadense L.) due to Mealy Bug, *Phenacoccus solenopsis* (Tinsley) infection and endophytic, *Beauveria bassiana* treatments. *Journal of Environmental Studies [JES]*. 22: 13-20.
3	**Kobetitsch S., Michalak B., Kunert O., Mazen A., Kretschmer N., Raab P., Bauer R., Kiss A. K., Pfersch-Wenzing E. M. (2019):** Phytochemical characterization and in vitro assessment of oral-health related pharmacological activities of Salvadora persica leaves. Planta Medica. 85: 1566
4	**Mazen, A.M., Radwan, D.M. and Abo-Derb, A.F.A. (2015):** Growth responses of maize plants cultivated in sandy soil amended by different superabsorbant hydrogels. J. Plant Nutrition. 38:325–337.
5	**Mazen A.M.A., El Maghraby O.M.O. and Ebaid S.A. (2014):** The Physiological effects of *Piriformospora indica* on some crop plants. B- Alleviation effects on stress by Salinity. *J. Env. Studies [JES]. 13: 79-93.*
6	**Mazen A.M.A., El Maghraby O.M.O. and Ebaid S.A. (2014):** The Physiological effects of *Piriformospora indica* on some crop plants. A- Effects on growth and physiological performance. *J. Env. Studies [JES]. 13: 95-106*
7	**Mazen, A.M., Radwan, D.M. and Abo-Derb, A.F.A. (2013):** Conditioning Effect of Different Absorbant Polymers on Physical and Chemical Properties of Sandy Soil. Journal of Functional and Environmental Botany. Volume 3, Number 2, November, 2013, 82-93
8	**Faheed, F. A., Mazen A. M., and Abd El Mohsen S. (2013)** Physiological and ultrastructural studies on calcium oxalate crystal formation in some plants. Turk. J. Bot., **37:** 139-152.
9	**Mazen A. M., El Sayed M. S., Farghali M. M. and Abo Amer A. E.** (**2012**): Isolation and characterization of organophosphorus lannate-degrading bacteria isolated from lannate-polluted soils at Sohag Governorate (Egypt). Sohag Bulletin of Pure and Applied Science (SBPAS). (14).

Lab instruments						
	Device	quantity	Quality			
			Good	Poor	Need maintenance	malfunction
1	Senthetive balance	2		✓		
2	Hot plate	1	✓			
3	centerfuge	1		✓		
4	Dry oven	1	✓			
5	incubator	1	✓			
6	Refregerator	1	✓			
7	Laminar flow	1		✓		
8	Microscobe	1	✓			
9	pH meter	2		✓		
10	Computer	1	✓			
11	Printer	1	✓			

Instruments Description

Device name	Device image	Description /use
Hot plate		Hot plate is a device used for: • Controlling the heating directly or to create a heat bath. • To solution during preparation. • With magnetic stirrers, used for mixing different chemicals at certain temperatures.
Dry oven		Sterilization of petri dishes, sterilization of glassware, drying of plant samples
Incubator		Incubators use in Cytology's lab are: • Provide an optimal condition of temperature, humidity, and other • Used to increase the growth rate of organisms. • Provide a controlled condition for sample storage before they can be processed in the laboratories.
Refregerator		Refregerator use in Cytology 's lab is**:** Sample preservation

Microscobe		This kind of microscopes with or without a camera can used in a variety of scientific fields for many different purposes as: • View different types of plant cells, tissues and analyzing them. • Study chemical composition in normal and abnormal tissues.
Computer		Through software we can: • Enhance image resolutions. • Analyzing specimen images. • Make statistical analyses. • Write & read scientific articles.
printer		Printing lab paper

Evaluate the fulfillment of lab to appropriateness of areas, building installations, facilities and human resources standards

Areas of assessment		Indicators	Yes	Somewhat	No
Floor area and capacity	1	Adequacy of the total capacity of the lab for the number of researcher (1).	✓		
Windows and doors	2	Availability of windows for adequate ventilations.	✓		
	3	Ease of use of windows.		✓	
	4	There are two exits (doors) at least (2).			✓
	5	There are signs to locate directions of emergency exits			✓
Equipment	6	Appropriate temperature during the lectures (3).	✓		
	7	Availability of good ventilation.		✓	
	8	The existence of adequate lighting .	✓		
	9	Lab is connected to the Internet	✓		
	10	The existence of directions inside the Lab showing entrances and emergency exits.			✓
Security and Safety	11	Existence of firefighting equipment near the hall.	✓		
	12	Cleanliness of the room.	✓		