

Biosecurity

M.Sc. Amna Shaker
College of Science
Medical Biotechnology Department
Al-Mustaqbal University

INTRODUCTION TO BIOSECURITY

- **Biosecurity**: includes all measures to prevent the introduction of pathogens (bio-exclusion) and reduce the spread of pathogens.
- refers to measures that are taken to stop the spread or introduction of harmful organisms to human, animal and plant life.
- The measures taken are a combination of processes and systems that have been put in place by bioscience laboratories, customs agents and agricultural managers to prevent the use of dangerous pathogens and toxins.



Importance of biosecurity

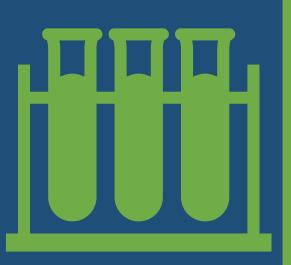
- Biosecurity practices can: prevent the introduction and spread of disease. protect us from zoonotic diseases (diseases that are transmissible between animals and humans) demonstrate commitment to animal health and food safety.
- Objectives of biosecurity:
- 1- Prevent the entry of the disease.
- 2- Control the spread of the disease





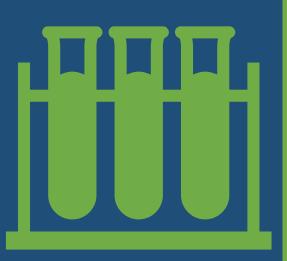
The three types of biosecurity

- 1: Conceptual biosecurity: Considerations related to your farm's location
- 2: Structural biosecurity: considerations related to the physical design and layout of your farm and its buildings
- 3: Procedural biosecurity: The processes and procedures you follow during normal day-to-day operations.



Biosafety + Biosecurity = Biorisk management

- biosafety aims at protecting public health and environment from accidental exposure to biological agents,
- **Biosecurity** deals with the prevention of misuse through loss, theft, diversion or intentional release of pathogens, toxins and any other biological materials.





- The prevention goals of biosecurity are defined independently of the origin of the biological material.
- It is considered that biosafety and biosecurity are complementary to address biorisk issues.
- With time biosecurity has become associated with biosafety to form the contemporary approach of "biorisk management".

