

Plant Growth Chamber



A plant growth chamber provides a controlled environment in which plants can exist. These chambers make it possible to measure the effects of various environmental characteristics, such as light, temperature, humidity, and other atmospheric conditions, on plant growth and function.

Plant growth chambers are used to study plant growth by allowing researchers to control environmental factors like temperature, light, humidity, and carbon dioxide levels. They are used in a variety of ways, including:

Research

Plant growth chambers are used to study the effects of genetics, environmental factors, and disease resistance on plants. They are also used to develop new genetics, crop treatments, and plant breeding processes.

Crop yield

Plant growth chambers can help improve crop yield and quality by allowing researchers to precisely control light conditions.

Food security

Plant growth chambers can help improve nutritional quality and develop stress-resistant varieties of crops.

Sustainable agriculture

Plant growth chambers can help advance research on sustainable agricultural practices.

Ag-biotechnology

Plant growth chambers are important in the field of Ag-biotechnology.

Plant growth chambers come in different types, including reach-in and walk-in chambers. Reach-in chambers are more compact and cost-effective, while walk-in chambers offer more space for larger plants and experiments.

Plant growth chambers may have the following features:

- Heated or glass doors
- Control via touch screen
- Observation windows
- Humidity control
- CO₂ enhancement
- Extra illumination
- Spray nozzle modules
- Condensing with air cooling
- Adjustable lighting
- Cabinets and shelving
- Remote-controlled condensing
- Dry alarms
- Extended temperature ranges

