



ROOM TO GROW

CONTENT PACKET

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GROWING STRUCTURES

KEY TERMS:

Growing Structures
High Tunnel

Cold Frame
Greenhouse

Hothouse

Shad House

Background Information:

When driving through a neighborhood, a variety of houses, colors, and styles grace the streets. Homeowners have a number of options to choose from when building or buying a house. Individuals building growing structures have those same types of options. A great deal of consideration must be given in selecting the correct type of growing structure needed to create an ideal environment to grow crops based on the climate and region.

Additional Information:

- Ludy Greenhouses website: www.ludy.com
- Stuppy Greenhouse website: www.stuppy.com
- Prospiant Greenhouse website: www.prospiant.com/products/growing/
- Hummer International website: www.hummert.com

HEATING AND COOLING

KEY TERMS:

Solar	Forced Air (Unit Heat)	Infrared	Radiant	Stream
Ventilation	Ridge Vent	Side Vent	Circulation	Exhaust
Evaporated Cooler				

Background Information:

There is no standard heating and cooling system for growing structures. The needs of a structure vary depending on the location of the structure, region, climate, and plant species selected to grow. Making educated decisions regarding heating and cooling systems help create the ideal growing environment.

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- Hummert International website: www.hummert.com

GROWING MEDIUMS

KEY TERMS:

Growing Media

Perlite

Vermiculite

Peat Moss

Background Information:

The type of media in which seeds and plants are placed has a huge impact on a plant's ability to grow and thrive. Being knowledgeable about growing medium options, along with their advantages and disadvantages, is vital to yielding quality food products.

Additional Information:

- Grower Talks Magazine, published by Ball Horticulture: www.ballpublishing.com/growertalks
- Purdue College of Agriculture and Purdue Extension, search "growing medium" for related articles: www.extension.purdue.edu
- Hummert International website: www.hummert.com

NUTRIENT REQUIREMENTS

KEY TERMS:

Nutrient
Elements

Fertilizer

Liquid

Granular

Organic

Inorganic

Background Information:

Plants require sixteen essential elements to grow and thrive. The missing elements not provided by a plant's environment (i.e., water, air, and growing medium) must be supplemented with fertilizer in order to balance the nutritional needs of the plants.

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- Hummert International website: www.hummert.com

PEST MANAGEMENT

KEY TERMS:

Pests	Management	Insects	Nematodes	Mites
Rodents	Fungi			

Background Information:

Pest knowledge and management is vital to a plant's ability to grow and thrive. Producers must be able to identify pests and determine a control method that is best suited to solve the pest problem.

Additional Information:

- Grower Talks Magazine, published by Ball Horticulture: www.ballpublishing.com/growertalks
- Purdue College of Agriculture and Purdue Extension, search "growing medium" for related articles: www.extension.purdue.edu

PLANT DISEASES

KEY TERMS:

Disease
Uniform

Symptom
Host

Pathogen
Cultural Condition

Disease Triangle

Random

Background Information:

When we come down with a cold or aren't feeling well, we typically investigate to find out what be lurking in our bodies and making us feel sick. We work quickly to get the illness under control and generally feel better in a short period of time. The same thing can happen to plants - they can become sick too. However, remedying their disease and reversing its effects are not always quite as easy. Being able to identify symptoms of plant disease early and provide a remedy is the key to the plant crop surviving and continuing to thrive.

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