

Greenhouses



Know how. Know **now.**



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The Primary Consideration Prior to Designing a Greenhouse

Location



Location

- Room for expansion
 - Additional greenhouse structures
 - Storage
- Topography
- Land-use prediction
- Climate
- Labor supply
- Accessibility
- Water
- Orientation



Orientation

- Below 40° latitude:
 - Run ridges of all houses N-S
 - Better light distribution (moving shadows) is more important than light transmission optimization
 - Remember: **WINTER** light is the factor

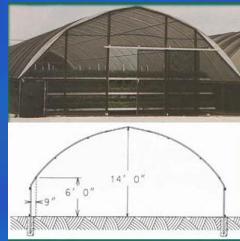


Greenhouse Style

- Lean-to

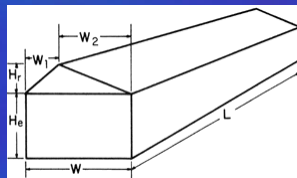


- Even span



Styles -continued

- Uneven span



- Ridge and furrow

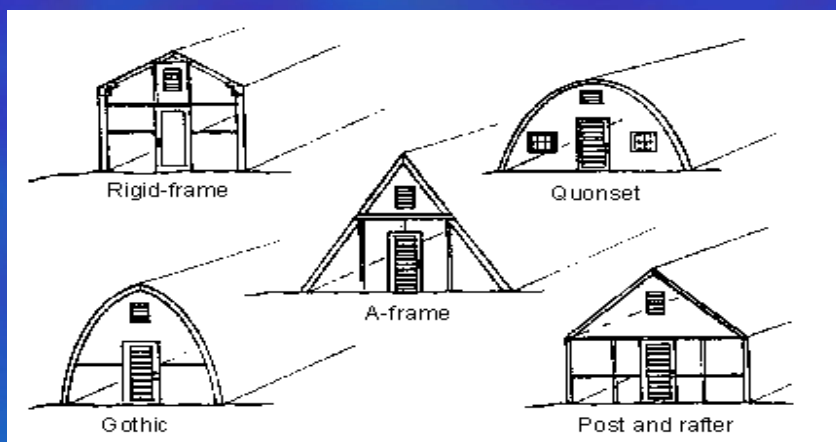


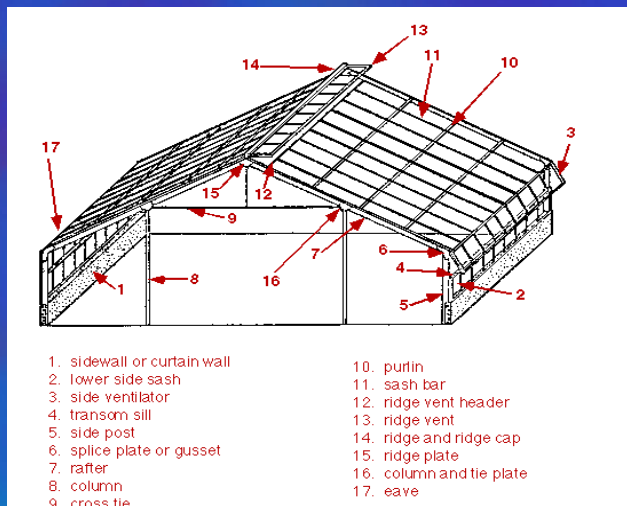
Four types of Freestanding Greenhouses

1. Even span- rafters of even length
2. Uneven span- rafters of unequal length
3. Gothic arch- styled in the shape of a pointed arch
4. Quonset- curved roofs with or without side walls



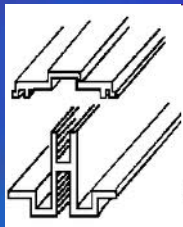
Structural Frames





Glazing Material

- Polyethylene or Poly
- Polycarbonate—Lexan
- Glass



Cooling

- Pad and Fan



- Vent and Fan



Heating

- Forced air



- Radiant



- Boiler



3 Key Points of Greenhouse Design

- Location
- Type of structure
- Glazing material

