

Hobby Greenhouses for NE Florida

By Terry Bottom

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WHAT WE REALLY NEED IS A SHADE HOUSE THAT CAN BE WINTERIZED



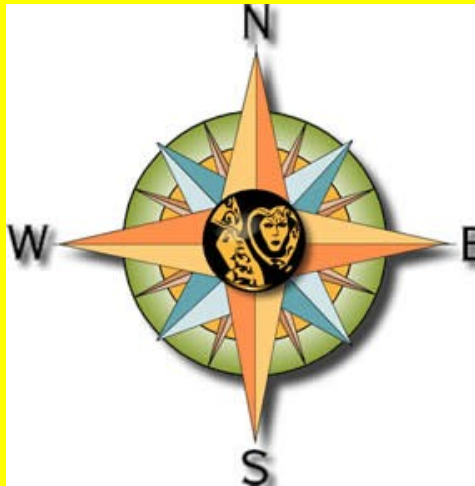
Controlled shade and ventilation are the primary considerations for successful growing

PLANNING FACTORS

- Location
- Building codes & other controlling factors
- Greenhouse types
- Building materials
- What systems to include
- Contractor vs do-it yourself

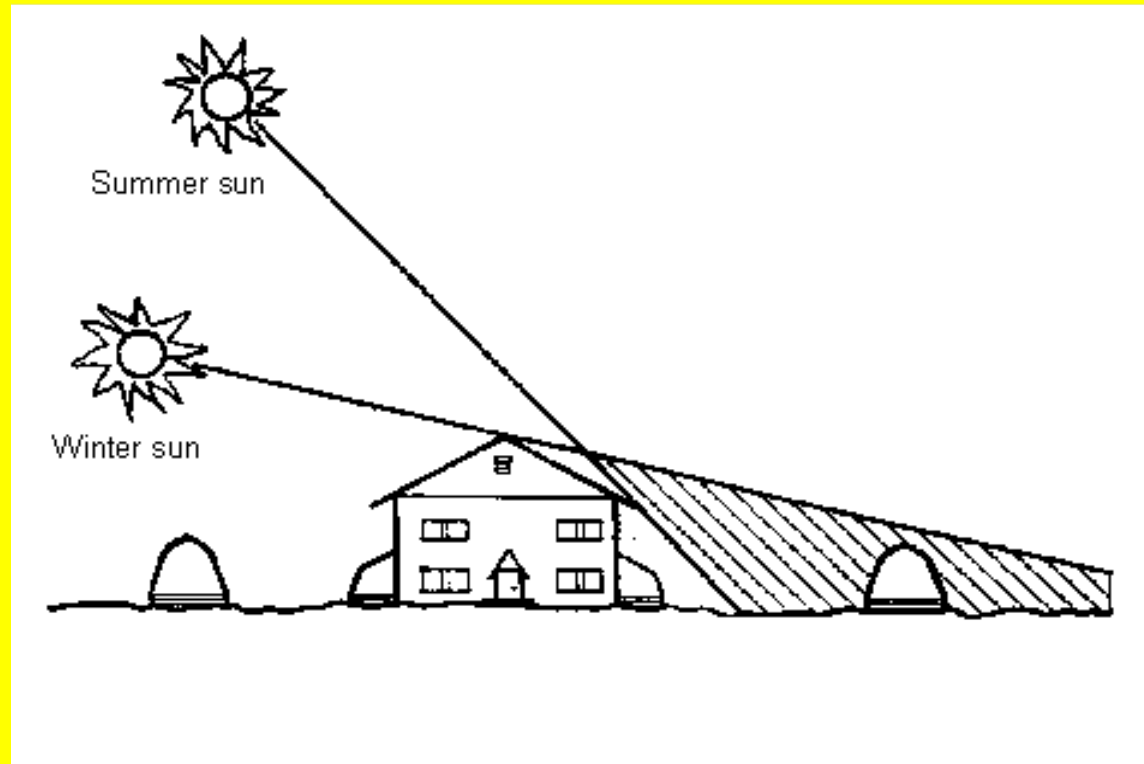
LOCATION

Site conditions will determine what kind of orchids you can grow

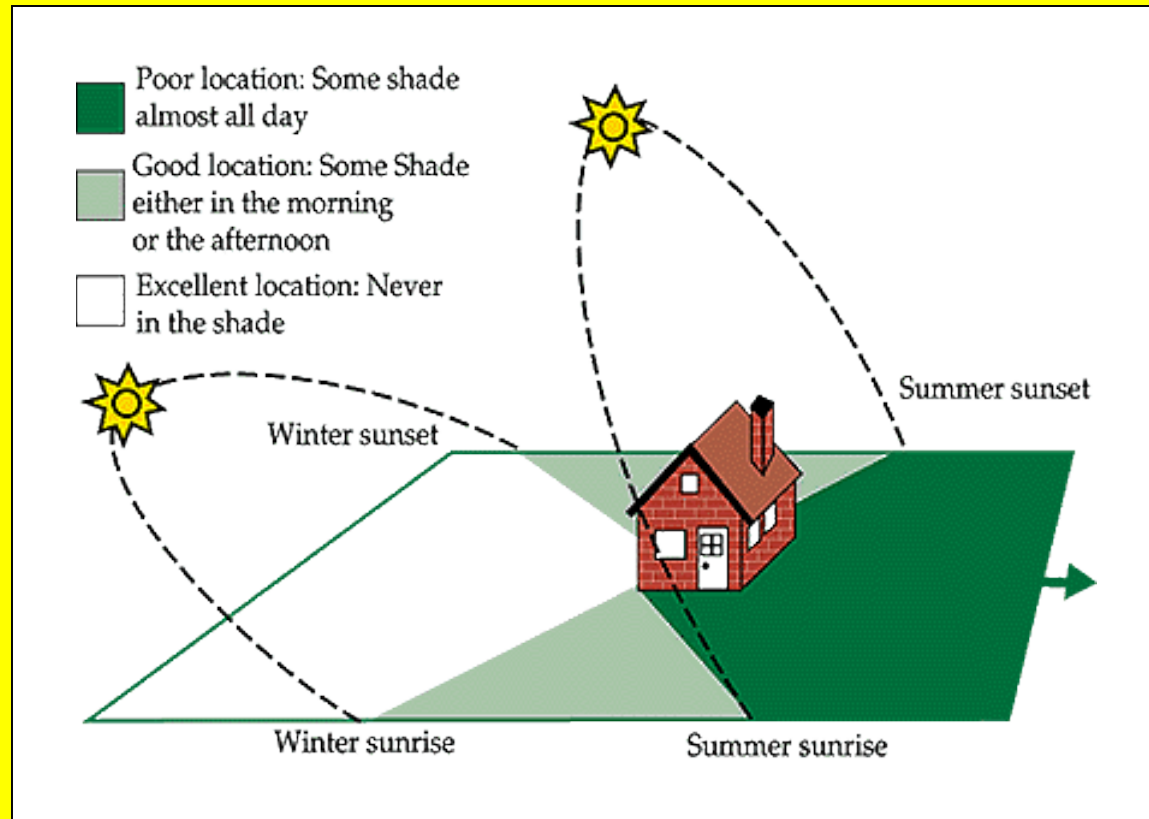


- Southern exposure with an east-west orientation is suggested by the experts

Select location carefully
note where shade lines fall for
summer & winter



Pay attention to seasonal sun angles



Building Codes & Other Controlling Factors

- City & county building codes
- Neighborhood association guidelines
- Budget
- Spouse
- Nosy neighbors



City & County Building Codes

- Front, back & side setbacks
- Engineered drawing
- Wind loads
- Permanent vs. temporary structure



Neighborhood Guidelines

- Deed restrictions
- Out buildings limits
- Building materials
- Approval process / ARB
- Loopholes



Budget

? ? ? ? ? ?

- Build all at once
- Build step by step



Spouse & Nosy Neighbor Factors

- Subtly evaluate positions
- Identify conflicts & prepare trade offs
- Jointly approve design
- Share orchid habit
- Transformation



Greenhouse Types

- Freestanding rigid structural frame in wood or metal



- Attached Rigid Structural Frame



- Architecturally Matched Structure



- Kits: Lean-to



- Kits: Freestanding



- Kits: Portable Tubular Frame



• Conversion



- Cold Frames



- Freestyle



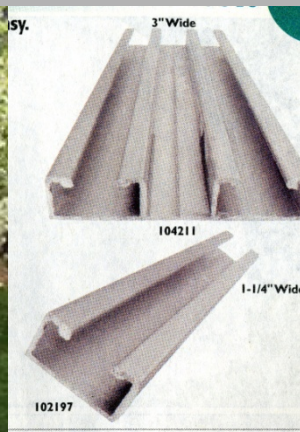
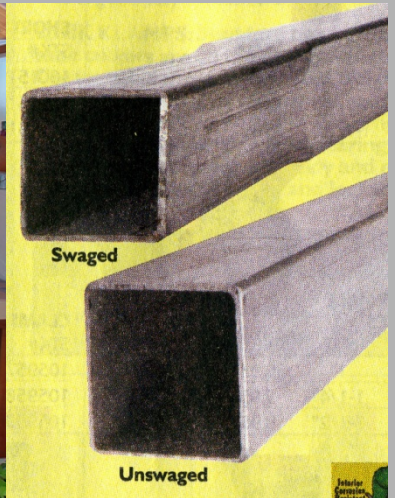
Building Materials

- Structural frame
- Coverings
- Floors



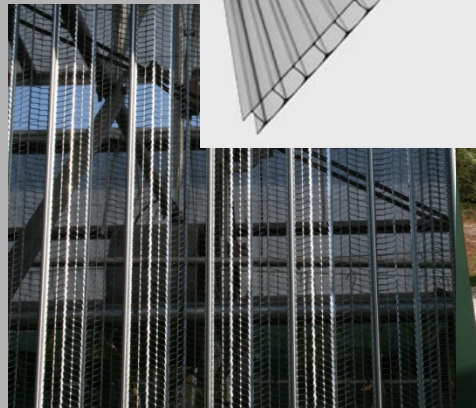
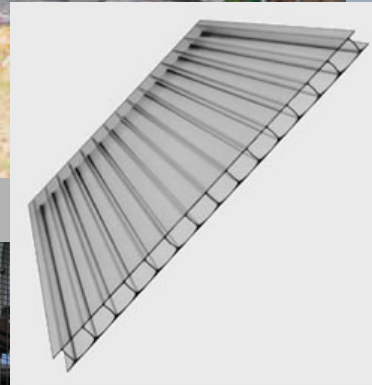
Structural Frames

- Wood
- Galvanized steel
- Aluminum
- Plastic



Cover

- Shade cloth
- Film
- Single layer sheets
- Double layer sheets
- Metal lathe
- Combination



Floor

- Fabric
- Gravel
- Concrete / Pavers
- Combination



Planning Systems

- Ventilation
- Air circulation
- Cooling with water
- Heating
- Electricity
- Water delivery system
- Benches & hangers



Ventilation

- Open walls
- Shade cloth walls
- Roll-up curtains
- Wall vents
- Roof vents



Air circulation

- Horizontal air flow fans
- Vent tubes
- Exhaust fans



Cooling with water

- Water wall
- Overhead misting
- Under bench or floor misting



Heating

- High wattage lights
- Space heaters
- Kerosene & propane space heaters
- Electric & propane forced air
- Radiant heating
- Under bench misting



Electricity

- Extension cord & GFI outlet
- 110 volt 30 amp
- 110 volt 100 amp
- 220 volt 150 amp



Water delivery system

- Hose
- Water source
- Tie-in
- Siphon
- injectors



Benches & Hangers

- No benches
- Purlins as hangers
- Hangers
- Combination benches
- Benches



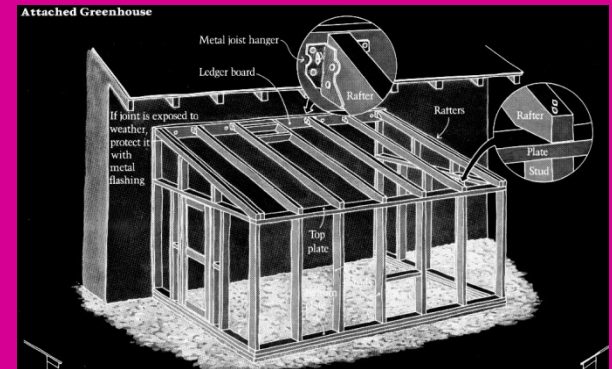
How to build

- Do-It Yourself: assemble kits, build small wooden structures, install water, & add accessories.
- Contractor: pour concrete, frame larger wood & metal structures, tie-in to existing structures, run major utilities, & install complex systems



What I've Learned

- You will run out space
- Get a light meter
- Analyze & know your water
- Concrete gets slippery
- Filter your water
- Shade cloth may need seasonal changes
- Propane heat is expensive
- Wet walls will eat your greenhouse
- Ventilation is the most important factor
- Automate whenever possible
- Preventive maintenance save lives



Recommendations

- Put shade cloth on top of covering.
- Portable tube frame kits are a good first greenhouse & can be rebuilt.



Recommendations

- Roll-up curtains are the way to go.
- Wooden kits are a waste of money, don't buy one, I did.



Recommendations

- The most economical & practical house to build yourself is a treated lumber frame, PVC roof with film & shade cloth on sidewalls of structure.
- Aluminet shade cloth is worth the extra money.



Recommendations

- Best Portable Kit: one of the Solar Star system kits from Farmtek (single wall only, no inflatable)
- Best Code-legal Kit: the Frances from Atlas greenhouse systems.



Happy Building

