ENVIRONMENTAL CONTROLS:

- Winter use: staple 2nd layer of clear 4 mil plastic to inside of posts and rafters to form dead air space.
- Heating: provide for single layer of plastic: 15,000 BTU/Hour (3 kw)
- Provide for double layer of plastic: 7,000 BTU/Hour (2 kw)
- Fans: provide maximum capacity of 1500 cfm with thermostatic control.

Two fans totaling 3000 cfm give more flexibility, better control and less total energy consumption.

Locate to exhaust to the north (the direction of prevailing summer breezes).

LOCATION:
- High ground to drain away from greenhouse.
- North-South orientation of greenhouse.
- No sunscrape on south, east, or west sides blocking low winter sun minimum sun angle on Dec. 21 at noon is about 30° in LA.
- Windows on north side.
- Locate near power source (electricity, gas) if fans and/or heaters are to be used.

FRAMING ISOMETRIC
FLOOR PLAN

- 47/8" posts 8'-0" long
- Pressure treated
- Set 2'-0" in concrete

CROSS SECTION

- Add a back vent for cooling on hot water days or to increase natural convection if fans are not used.
- 2" x 4" plate
- Ledger attaches plate or north end to fit.
- 2" x 4" girder
- For summertime ventilation, remove plastic between girder and ground, exposing screen.
- Aluminum or fiberglass screen to keep insects out.
- 3" to 4" sand
- 2" x 6" gravel under posts. Holes backfilled with concrete.
- Concrete is optional where posts are set in a firm soil and well tamped.
- All lumber should be pressure treated.
- Waterborne salt preservatives are preferred to creosote and PCP.
- 2" x 2" lumber usually has knots and warps easier unless properly stored.
- Use care in fastening to avoid splits.
- Use galvanized or aluminum fasteners.
- Preserve holes for 8d or 10d nails or wood screws can be used safely.
- Use UV-resistant 6-mil plastic for roof and sidewalls (see attachment details sheet one).
- Minimum height 10'-0" x 12'-0". 2" x 2" lumber
- 2" x 4" door frame for 30" x 80" door.
- Use screen vents on front wall if fans are not used.

SIDE ELEVATION

END ELEVATION
Disclaimer

This site makes available conceptual plans that can be helpful in developing building layouts and selecting equipment for various agricultural applications. These plans do not necessarily represent the most current technology or construction codes. They are not construction plans and do not replace the need for competent design assistance in developing safe, legal and well-functioning agricultural building system. The LSU Agriculture Center, the Mid-West Plan Service, the United States Department of Agriculture and none of the cooperating land-grant universities warranty these plans.