

# Seasonal High Tunnel System for Crops

## Approved Product List & Selection Criteria **NH-798**

**November 2010**

*Subject to update – product lists with later dates will supersede this list.  
This product list is not all inclusive and does not imply NRCS endorsement  
of any product, company, or position.*

Source	Model
Atlas Manufacturing, Inc. Alapaha, GA 800-346-9902 <a href="http://www.atlasgreenhouse.com">www.atlasgreenhouse.com</a>	Snow Arch Budget Plus 2" Square Structure
Growers Supply South Windsor, CT 800-476-9715 <a href="http://www.growerssupply.com">www.growerssupply.com</a>	ClearSpan Gro-Max Gothic with wood or metal framed endwalls
Griffin Greenhouse & Nursery Supplies Tewksbury, MA 978-851-4346 <a href="http://www.griffins.com">www.griffins.com</a>	New England Windjammer Series 5000
Ledgewood Farms Moultonborough, NH 603-476-8829 <a href="http://www.ledgewoodfarm.com">www.ledgewoodfarm.com</a>	Ledgewood Farm Gothic
Rimol Greenhouse Systems, Inc. Hooksett, NH 603-494-9426 <a href="http://www.rimol.com">www.rimol.com</a>	Nor'Easter Northpoint Eastpoint Rolling Thunder
Harnois Industries St. Thomas, Quebec 888-427-6647 <a href="http://www.harnois.com">www.harnois.com</a>	Ovaltech I Ovaltech III
Four Season Tools Kansas City, MO 816) 444-7330 <a href="http://www.SmallFarmTools.com">www.SmallFarmTools.com</a>	Four Season Moveable Gothic

Models above must also meet all the criteria on the following page. Models that are not listed above may also be allowed, providing they meet all the criteria on the following page.

### High Tunnel Selection Criteria:

- Frame is gothic style (peaked versus round)
- Tunnel width does not exceed 30 ft for fixed tunnels or 22 ft. for rolling tunnels
- Bows and ground posts are at least:
  - (i) 1.90" round 14 gauge galvanized steel or stronger for tunnels  $\geq$  26 ft. wide
  - (ii) 1.66" round 14 gauge galvanized steel or stronger for tunnels  $<$  26 ft. wide
  - (iii) 2.00" square 16 gauge galvanized for all tunnel widths
  - (iv) 1.625" x 2.750" oval 16 gauge for all tunnel widths
- Bows are spaced 4 ft. apart. Bows may be spaced 6 ft. apart only for tunnels constructed with galvanized steel bows and ground posts that are at least (i) 2.375" round 14 gauge or (ii) 2.0" x 3.56" oval 16 gauge
- 3 purlins for tunnels  $<$  26 ft. wide, 5 purlins for tunnels  $\geq$  26 ft. wide
- Trusses with braces/cross-ties every other bow for tunnels  $\geq$  26 ft. wide
- Frame is covered with at least 6-mil, 4-year UV resistant polyethylene film
- Roll-up or drop-down sides are installed on both sides
- End walls are framed with wood lumber or metal
- Endwalls are covered with UV resistant polyethylene film (at least 6-mil, 4-year), polycarbonate, or plywood
- At least one end wall contains a door for access

### High Tunnel Selection Considerations

- Construct a minimum 6 ft. x 6 ft. opening on each endwall for increased ventilation and access (e.g. 2- 36 inch wide doors on each end or larger roll-up, sliding, or hinged doors).
- Evaluate the size of the equipment to be used in the tunnel when constructing the endwalls and the height of the sidewall as it relates to the height of the target crops (and personnel who will be working in the tunnel).
- Use a truss at least every other bow. For tunnels  $\geq$  26 ft. wide consider using trusses with braces/cross-ties on every bow.
- Add more purlins and/or wind bracing kits in windier areas.
- Avoid plywood on southern sides of the tunnel. Paint plywood white to increase light reflectance.