

Seasonal High Tunnel System for Crops

Interim Practice Standard - Conservation Sheet 798



Photo Source: www.hightunnels.org

Definition

A seasonal high tunnel is a polyethylene covered structure with no electrical, heating, and/or mechanical ventilation systems, at least 6 feet in height, which modifies the climate to create more favorable growing conditions for crops grown in the natural soil within the covered space.

Purpose

The purpose of the seasonal high tunnel is to extend the crop growing season, improve plant quality, improve soil quality, and improve water quality from reduced nutrient and pesticide transport.

Where used

A seasonal high tunnel may be used where existing crops are grown, extension of the growing season is needed due to climate conditions, and crops can be grown in the natural soil profile.

Commercially available high tunnel structures are made in numerous widths and lengths. The high tunnels are constructed of metal or plastic

bow frames that are covered with a single layer of polyethylene. Ventilation is achieved by means of a combination of roll-up side vents, end vents, and occasionally, roof vents. Generally, the end walls are framed-in to create door and ventilation areas. The high tunnel structure covers several crop rows, and is tall enough to allow spraying, cultivation and harvest to occur with the tunnel intact.

Conservation management system

Water runoff from the high tunnels or from other nearby sources can cause erosion and ponding issues that may require the application of other practices such as infiltration trenches, diversions, underground outlets and critical area plantings. Additional practices should be considered as a part of a conservation plan, such as nutrient and pest management and crop rotation.

Comment [VSA1]: I am more comfortable taking the wording directly from the standard.

Comment [VSA2]: Not sure where this is coming from. The high tunnel may be removed after danger of frost is over.

Comment [VSA3]: We are allowing for these problems to be discovered and dealt with as part of O&M.

Seasonal High Tunnel System – Conservation Sheet

Producer _____ Location _____

Field Office _____ Conservation Contract _____

Materials List

High Tunnel Structure, size(s) _____

Supporting Practices Required:

- Manufactured Gutter System
- Critical Area Planting (job sheet attached)
- Infiltration Trench along each side (construction plan attached)
- Underground Outlets (construction plan attached)
- Diversion (construction plan attached)
- Other _____

High Tunnel System Construction

- Prepare site according to manufacturer's instructions.
- Lay out building location according to site plan.
- Assemble high tunnel structure according to manufacturer's instructions.
- Install supporting practices as required, according to construction plans provided.

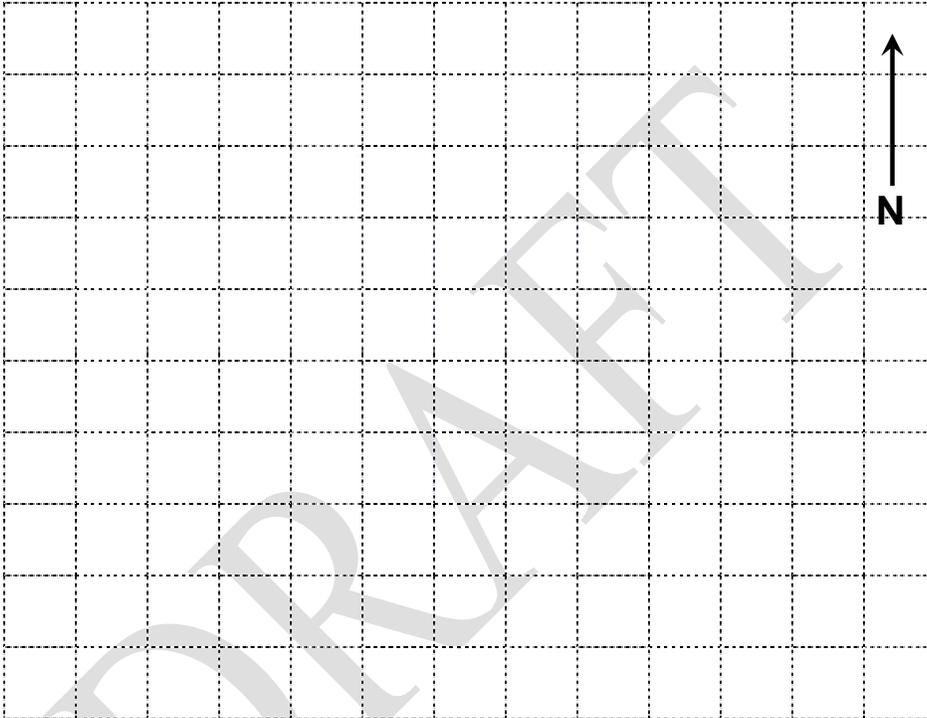
Operation and Maintenance

- Follow attached Operation and Maintenance document, "Seasonal High Tunnel System for Crops (798)"

Seasonal High Tunnel System – Layout and Location

Plan view of seasonal high tunnel system site shown below.

Scale 1"= _____ ft. (NA indicates sketch not to scale; grid size=1/2" by 1/2")



Additional Specifications and Notes:

Seasonal High Tunnel System – Construction Checkout

Seasonal High Tunnel Structure – as-built measurements	
Length (ft)	Height in Center (ft)
Width (ft)	Structure Manufacturer

Supporting Practices Installed
<input type="checkbox"/> Manufactured Gutter System <input type="checkbox"/> Critical Area Planting <input type="checkbox"/> Infiltration Trench along each side <input type="checkbox"/> Underground Outlets <input type="checkbox"/> Diversion <input type="checkbox"/> Other _____

CHECK OUT:	
Amount Completed: _____ square feet.	Mark As-Built location on plan map.
Remarks _____	
This practice meets NRCS standards and specifications	<input type="checkbox"/> Yes <input type="checkbox"/> No
Check out by: _____	Date: _____

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