

Seasonal High Tunnel System for Crops

Interim Conservation Practice Job Sheet

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Photo Source: www.hightunnels.org

Definition

A seasonal polyethylene covered structure with no electrical, heating, and/or mechanical ventilation systems that is used to cover crops to extend the growing season in an environmentally safe manner.

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

This practice applies to existing cultivated cropland where extension of growing season is needed due to climate conditions and crops can be grown in the natural soil profile. The practice does not include greenhouses or low tunnel systems that may cover single crop rows.

The seasonal tunnel structure must be planned, designed, and constructed in accordance with manufacturer's recommendation. Seasonal tunnel structures shall be selected and applied over the crop area.

- The tunnel frame must be constructed of metal, wood, or durable plastic; and be

at least 6 feet in height. The material shall be of a significant thickness to withstand the temperature modification for the period required.

- As a minimum, a 6-mil greenhouse-grade, UV resistant polyethylene cover will be used.
- Manufacturer shall warrant the structure for a live span of four years.
- Tunnel cover shall be removed at the end of the growing season unless manufacturer will warrant that the design criteria and operation and maintenance shall address climate conditions, such as snow loads or wind velocities.

Conservation Management System

Erosion, runoff and ponding issues may require the application of other practices. These required practices must be planned and installed as a condition for the installation of a high tunnel. Additional supporting practices should be considered, such as nutrient management, integrated pest management, crop rotation, irrigation water management, and cover crops.

Seasonal High Tunnel System – Job Sheet

Producer _____ Location _____

Field Office _____ Conservation Contract _____

Materials List (Manufactured structure requires NRCS approval prior to purchase to ensure eligibility for incentive program payments)

Manufactured High Tunnel Structure, Design

Size(s) Height _____ Width _____ Center Height _____

Hoop structure: ie: PVC _____

Cover material: ie: 6 mil plastic _____

Anchoring: ie: Cable every 6 ft _____

Irrigation type: ie: Microirrigation _____

Additional materials: ie: Netting for Pests

Supporting Practices Required*: Please check conservation practices that will be required based on site location and climate.

- | | |
|--|--|
| <input type="checkbox"/> Conservation Crop Rotation (328) | <input type="checkbox"/> Grassed Waterway (412) |
| <input type="checkbox"/> Nutrient Management (590), if nutrients are applied | <input type="checkbox"/> Underground Outlet (620) |
| <input type="checkbox"/> Integrated Pest Management (595), if pesticides are applied | <input type="checkbox"/> Surface Drainage (607) |
| <input type="checkbox"/> Diversion (362) | <input type="checkbox"/> Irrigation Reservoir (436) |
| <input type="checkbox"/> Critical Area Planting (342) | <input type="checkbox"/> Runoff Mgmt System (570) |
| <input type="checkbox"/> Irrigation Water Management (449) | <input type="checkbox"/> Roof Runoff Structure (558) |
| <input type="checkbox"/> Irrigation System, Microirrigation (441) | <input type="checkbox"/> Mulching (484) |
| | <input type="checkbox"/> Cover Crop (340) |

*Attach the completed conservation practice jobsheets/construction plans and specifications for each of the required conservation practices.

Seasonal High Tunnel System – Job Sheet

Operation and Maintenance:

- Periodically inspect structure and cover for damage. Reinstall or repair promptly.
- Follow manufacturer’s instructions for operation and maintenance of the high tunnel structure.
- Avoid damage to structure from equipment operated in and around the seasonal high tunnel.
- Inspect runoff control measures after every significant rainfall event. Repair promptly.
- Remove and store high tunnel cover at the end of each growing season to prevent damage from snow loads, unless manufacturer warrants structure for local wind and snow load conditions. Replace cover prior to use in the spring.

Additional Operation and Maintenance:

PRACTICE CERTIFICATION

I understand and will comply with the Seasonal High Tunnel System for Crops and all supporting Conservation Practices’ Specifications and Operation and Maintenance plans.

Producer:

Date:

Planner:

Date:

Seasonal High Tunnel System – Construction Checkout

Seasonal High Tunnel Structure – as-built measurements

Structure Manufacturer _____

Size(s) Height _____ Width _____ Center Height _____

Hoop structure: ie: PVC _____

Cover material: ie: 6 mil plastic _____

Anchoring: ie: cable every 6 ft _____

Irrigation type: ie: Microirrigation _____

Additional materials: ie: Netting for Pest Mgmt

Supporting Practices Installed. Attach Jobsheet/Specification for each checked.

Supporting Practices Required:

- Conservation Crop Rotation (328)
- Nutrient Management (590), if nutrients are applied
- Integrated Pest Management (595), if pesticides are applied
- Diversion (362)
- Critical Area Planting (342)
- Irrigation Water Management (449)
- Irrigation System, Microirrigation (441)

Supporting Practices Required:

- Grassed Waterway (412)
- Underground Outlet (620)
- Surface Drainage (607)
- Irrigation Reservoir (436)
- Runoff Mgmt System (570)
- Roof Runoff Structure (558)
- Mulching (484)
- Cover Crop (340)

CHECK OUT:

Amount Completed: _____ square feet.

Mark As-Built location on plan map.

Remarks _____

Practice meets NRCS standards and specifications

Yes

No

Check out by: _____

Date: _____