

# High Tunnel Fact Sheet

## Conservation Practice 325



*High tunnels make it possible to grow warm season crops in North Dakota.*

### Overview

High tunnels (seasonal tunnel systems for crops) are enclosed polyethylene, polycarbonate (plastic), or fabric covered structures used to cover plants to extend the growing season. High tunnels depend on the covering to raise temperatures for the plants growing inside.

The growing season can be extended by two to four weeks by protecting crops from potentially damaging weather conditions. Due to the micro-climate inside the tunnel, crops tend to be of higher quality and produce higher yields than field-grown crops. Crops must be planted in the ground and not in containers.

This practice has a minimum expected life of 5 years. Operation requirements for the facility depend on the type of facility chosen by the producer and will include provisions for proper disposal of residual material. Routine maintenance is needed to ensure that the facility operates as designed.

### Assistance

Contact your local NRCS office to learn how financial assistance payments, as part of a Farm Bill conservation contract in the Environmental Quality Incentives Program (EQIP) for a high tunnel can benefit you and your community.

### Eligibility

To meet land eligibility requirements, land on which the high tunnel is to be placed must currently be in cultivation or presently capable of being planted to a crop, like vegetables, berries, or flowers.





## Specifications

This practice applies to land capable of producing crops. This practice applies where sun or wind intensity may damage crops, or where an extension of the growing season is needed due to climatic conditions. The practice does not apply to crops not grown in the natural soil profile. Raised beds are limited to 12 inches in depth.

The high tunnel structure must be planned, designed, and constructed from a manufactured kit in accordance with manufacturers' recommendations. The high tunnel frame must be constructed of metal, wood, or durable plastic; and be at least 6 feet in height at the peak of the structure. The high tunnel covering material shall have a 4-year-minimum lifespan. For polyethylene covers, a minimum 6-mil greenhouse grade, UV-resistant material should be used.



## Questions and Answers

### Are high tunnels the same as greenhouses?

No. Both high tunnel systems and greenhouses can depend on plastic covering and often heaters to raise temperatures within the structure. However, plants in greenhouses usually grow in containers. Plants in high tunnels grow directly in the soil. Unlike greenhouses, high tunnel systems are seasonal and are considered temporary structures.

### How are crops grown in a high tunnel?

Crops can be grown under the tunnel by either using conventional tillage in the natural soil profile or by installing permanent raised beds up to 12 inches in depth/height. High tunnel systems installed under EQIP are not designed for crops grown on tables/benches or in portable pots. Cannabis production is prohibited by USDA-NRCS.



### Are low tunnels considered a high tunnel eligible for EQIP?

No. In order to qualify as a high tunnel system under EQIP the tunnel system must be 6 feet in height; therefore, row covers and/or low tunnels do not qualify under EQIP.

### What are the structure requirements for a high tunnel under EQIP?

Under EQIP, the high tunnel system must be obtained as a pre-fabricated kit directly from the manufacturer or from a supplier. The frame shall be constructed of metal, wood, or durable plastic and be at least 6 feet in height. The cover must be, at a minimum, a 6-mil greenhouse-grade, UV resistant material. NRCS does not have a size limitation for high tunnels.



### What usually comes in a high tunnel kit?

Basic kits usually include the frame structure and assembly hardware; cover with roll-up or drop-down side assemblies and heavy duty ground posts. Optional items include manufactured end panels and/or door assemblies as well as top and bottom baseboard kits. Most kits will require the use of locally purchased lumber to construct baseboards and door frames and some additional anchoring equipment.

### Can I build my own high tunnel under EQIP?

No. NRCS standards currently allow only for the installation of pre-fabricated high tunnel system kits.