

# Extending the Growing Season with High Tunnels



High tunnels make it possible to grow warm season crops in Alaska.

## Overview

High tunnels (seasonal tunnel systems for crops) are seasonal polyethylene covered structures used to cover plants to extend the growing season. High tunnels depend on the plastic 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.

## Assistance

Contact your local NRCS office to learn how financial assistance payments, as part of a Farm Bill conservation contract in the Environmental Quality Incentive Program (EQIP) for a high tunnel can benefit you and your community. Historically underserved customers, including Alaska Natives, may receive greater financial assistance.

## 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.





**Contact your closest NRCS office for more information.**

- Anchorage (907) 271-2424  
(907) 283-8732
- Aniak (907) 675-4578  
(907) 479-3159
- Bethel (907) 543-7155  
(907) 479-3159
- Craig (907) 826-5690
- Delta Junction (907) 895-4241
- Dillingham (907) 842-3240
- Fairbanks (907) 479-3159
- Glennallen (907) 822-5111
- Homer (907) 235-8177
- Juneau (907) 586-7220
- Kenai (907) 283-8732
- Kodiak (907) 486-5598  
(907) 235-8177
- Mat-Su Valley (907) 373-6492
- Nome (907) 443-6096
- State Office (907) 761-7760

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## Specifications

Structures shall be obtained from a commercial source. These structures, sold as kits, generally contain all of the required materials and hardware to erect the structure except for the lumber needed for baseboards and end walls. Individual kits vary by supplier and manufacturer.

Seasonal High Tunnel structures shall be of adequate size to obtain 100 percent coverage over the crop area. The structure cover, at a minimum, shall be made of 6-mil greenhouse-grade, UV resistant polyethylene. Center height of structure shall be a minimum of 6 feet. Bow spacing shall be a maximum of 4 feet. All materials shall be of significant thickness to withstand the temperature modification for a minimum of four years. To prevent damage from heavy snow loads, tunnel covers should be removed at the end of the growing season.

## Questions and Answers

### Are high tunnels the same as greenhouses?

No. The seasonal high tunnel system depends on the plastic covering to raise temperatures within the structure. Temperatures during the growing season are controlled by using manual roll-up side vents and by opening end doors to provide ventilation. Unlike greenhouses, seasonal high tunnel systems as indicated by their name are seasonal and are considered temporary structures.

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

Crops can be grown by either using conventional tillage in the natural soil profile or by installing permanent raised beds under the tunnel. Seasonal high tunnel systems installed under the Environmental Quality Incentives Program (EQIP) are not designed for crops grown on tables/benches or in portable pots.

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

No. In order to qualify as a seasonal 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 seasonal 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 plastic cover must be, at a minimum, a 6-mil greenhouse-grade, UV resistant polyethylene.

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

Basic kits usually include the frame structure and assembly hardware; polyethylene 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 seasonal high tunnel system kits.