

# Seasonal High Tunnels



## The Basics

The High Tunnel System is a conservation practice available through the Environmental Quality Incentives Program (EQIP). Seasonal high tunnels are plastic-covered structures that enable farmers to have crops ready earlier or later in the season. In high tunnels, plants are grown directly in the ground, and the sun's heat regulates the temperature inside.

The Seasonal High Tunnel is a voluntary practice that NRCS may provide financial and technical assistance for in order to help producers extend the growing season for high value crops in an environmentally safe manner. This practice may assist producers in addressing a resource concern by: improving plant quality, improving soil quality, reducing nutrient and pesticide transportation, improving air quality through reduced transportation inputs, and reducing energy use by providing consumers with a local source of fresh produce.

## Criteria

The following is a list of criteria used to determine whether a Seasonal High Tunnel is an appropriate practice for your operation.

- Supportive conservation practices to address all environmental concerns associated with the installation and use of the high tunnel systems such as erosion, irrigation and runoff must be planned.
- Crops must be grown in the natural soil profile. Raised beds may be installed to improve soil condition, fertility, and access. Raised beds are a maximum of 12 inches in depth.
- The practice does not include greenhouses or low tunnel systems.
- The high tunnel cannot be used to provide shelter or housing for any livestock, or to store supplies or equipment.

Continued on reverse

## High Tunnel Benefits

- Extended growing season
- Excelerated Spring planting
- Less expensive than a traditional greenhouse
- Pest management
- Water management
- Harvest quality
- High walls allow for tractors to pass through for tillage

## Also Called

- Hoop Houses / High Hoops
- Cold Frames

## Resources

- Natutural Resources Conservation Service in Idaho  
<https://www.nrcs.usda.gov/wps/portal/nrcs/site/id/home/>
- University of Idaho Extension Service  
[www.uidaho.edu/extension](http://www.uidaho.edu/extension)



- The high tunnel will need to be located so as to avoid buried public utilities.
- The high tunnel needs to be near a viable water source for irrigation.
- The 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. If required for enclosure, end wall covering may be greenhouse-grade plastic, polycarbonate, wood, or other. Use structures with the entry/exit point sized to facilitate movement of equipment and supplies needed for the production of planned crops.
- You will need to elect the high tunnel covering material of a significant thickness to withstand the temperature change for the period required and shall have a 4-year-minimum lifespan. For polyethylene covers, use a minimum 6-mil greenhouse grade, UV-resistant material.
- For organic producers, it will be their responsibility to make sure that all permissible activities, design, material used, and material specifications are consistent with the USDA Agricultural Marketing Service National Organic Program, National Standards on Organic Agricultural Production and Handling.
- High tunnel structures need to be constructed on level grade or the naturally occurring slope if the slope does not exceed five percent.
- If snow loads may damage the structure, the tunnel cover will need to be removed or rolled up at the end of the growing season unless the structure is designed by the manufacturer to withstand expected snow loads.
- Where wind may damage the structure, select the tunnel cover and structure designed by the manufacturer to withstand expected wind speeds or manage the tunnel system in a manner that limits wind damage.
- If the intensity or duration of sunlight can shorten the growing season, the appropriate thickness of shade cloth may be used in place of, or in addition to impervious plastic covers. When shade cloth is used alone, end walls are not required.
- High tunnels shed a large amount of water and can create drainage and ponding issues where none previously existed. Direct runoff away from the high tunnel structure to avoid ponding. You will need to provide a detention basin, storage reservoir, or stable



outlet when runoff from tunnel covers empties onto the ground surface with potential to cause erosion.

- Outside the high tunnel structure, you will need to plant/ revegetate all exposed soil surfaces disturbed during construction (CPS Code 342, Critical Area Planting) If climatic conditions preclude the use of seed or sod, use mulch (CPS Code 484).
- Significant modifications to the high tunnel structure design must be verified and approved by the manufacturer prior to construction to ensure that any warranties remain in effect.

## How To Apply

NRCS accepts and processes EQIP applications on a continuous basis. However, Idaho is allowed to establish deadlines for one or more application periods in which to consider eligible applications for funding. Applications submitted after such dates will be evaluated and considered for funding during later funding opportunities. Producers must submit a complete program application and other documentation to support eligibility to be considered for financial assistance through EQIP. To learn more about how to apply for EQIP, visit your local field office or our website at <https://www.nrcs.usda.gov/wps/portal/nrcs/site/id/home/>

## Who Can Apply

Eligible applicants include individuals, legal entities, Indian Tribes, or joint operations engaged in agricultural production. In addition, organic producers who grow agricultural commodities on eligible land and have natural resource concerns which may be addressed by a seasonal high tunnel may participate in EQIP. For more information about eligibility, visit your local field office or our website at <https://www.nrcs.usda.gov/wps/portal/nrcs/site/id/home/>

