



United States Department of Agriculture
Natural Resources Conservation Service

Helping People Help the Land

USDA Natural Resources Conservation Service
1550 Earl Core Road, Suite 200
Morgantown, WV 26505
Phone: 304-284-7540 Fax: 304-284-4839
<http://www.wv.nrcs.usda.gov/>

Assistance For Constructing Seasonal High Tunnel Systems

Environmental Quality Incentives Program (EQIP)

EQIP provides financial and technical assistance to implement conservation practices to address soil, water, air, plant, animal, and energy resources. Signup is continuous.

A new financial assistance pilot program for a statewide concern is available through EQIP for landowners to install seasonal high tunnels (hoop houses). These structures help extend the growing season, and improve plant and soil quality. They also help improve water quality by reducing nutrient and pesticide transport. For this pilot project, plants must be planted in the ground or in permanent raised beds, and not containerized.



What are Seasonal High Tunnels?

A seasonal high tunnel is a polyethylene covered structure with no electrical, ventilation, or heating system which modifies the climate to create more favorable growing conditions for vegetables and other specialty crops grown in the natural soil within the covered space.

Where Are These Houses Used?

A seasonal high tunnel may be used where existing specialty commodity crops are grown in open field

conditions, and extension of the growing season is needed due to climate conditions.

Producers must use commercially available high tunnel structure kits (that meet WV-NRCS criteria) that are made in numerous widths and lengths and are constructed of metal 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, is wide enough to allow crop growth to full maturity under the tunnel, and is tall enough to allow spraying, cultivation, and harvest to occur with the tunnel intact.

Conservation Management System

Water runoff from 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. These additional practices must be planned and installed as a condition for the installation of a high tunnel. Additional practices should be considered as a part of a conservation plan, such as crop rotation, micro-irrigation, nutrient and pest management.

Who is Eligible?

- Participants must be on record with the Farm Service Agency and meet all eligibility requirements including producer and land eligibilities.
- The applicant should have land where crops are actively being cultivated. If land is in perennial sod at time of eligibility, then the site can be approved as long as the area has been cropped two of the last five years.
- Eligible crops include vegetables, fruits, flowers, and/or bulbs.

Preparation and Planning

- The maximum size for USDA-NRCS financial assistance is 2,178 sq. ft.
- The tunnel frame must be at least 6 feet in height with a minimum 6-mil UV resistant polyethylene cover.
- When at all possible, the structure should be installed in a North-South direction.
- Additional practices such as roof runoff management and critical area treatment must be installed to address current erosion issues.
- Irrigation must be available for use under the high tunnel structure.
- Participant must construct a “kit” type structure (approved by WV-NRCS) and other required components. (Only metal framed structures are eligible for financial assistance.) Installation must be done according to the manufacturer’s recommendations. Consider wind and snowloads if the structure is not removed during the winter.
- Participant must have NRCS approval prior to purchase and provide a copy of the manufacturer’s design specifications of the tunnel to the local NRCS District Conservationist to place in the office case file.
- Participant must contact the local NRCS Service Center a minimum of 48 hours prior to beginning construction.
- Operation and management will include control of internal temperatures and soil moisture, removal of plastic covers in the event of extreme weather which may compromise structure, and the required maintenance including replacement of covers and environmentally safe disposal of removed covers.
- Reimbursement will be made only after a conservation contract is signed; the structure is

completely constructed, inspected, and approved by NRCS personnel.

- Participant agrees to maintain the structure for a period of at least four years and maintain a record system on at least an annual basis.

Associated Conservation Practices

Since water runoff from high tunnels can cause erosion, pooling, and other environmental concerns, there are additional conservation practices that can be planned to support the high tunnel practice as determined by the planner. These practices must be part of the Conservation Plan, but not required in the contract. Practices include:

- 328 - Crop rotation
- 342 - Critical area stabilization
- 412 - Grass waterway (depending on site)
- 441 - Irrigation water management (micro)
- 590 - Nutrient management
- 595 - Pest management

For additional information, contact your District Conservationist.

NRCS has offices in many of West Virginia counties. Local offices may be found at <http://www.wv.nrcs.usda.gov/contact/> or contact your local USDA Service Center, listed in the telephone book under U.S. Department of Agriculture.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

