

Seasonal High Tunnels is a pilot project under the “Know Your Farmer, Know Your Food” initiative for farmers to establish high tunnels to increase the availability of locally-grown produce in a conservation-friendly way.



Why Seasonal High Tunnels

A seasonal high tunnel is a polyethylene-covered structure with no electrical, ventilation, or heating system, and at least 6 feet in height, which modifies the climate to create more favorable growing conditions for vegetable and other specialty crops grown in the natural soil beneath it. A 3-year pilot will test whether there are additional conservation benefits associated with the use of these structures.

Potential Resource Benefits of High Tunnels

Potential natural resource benefits from using tunnel structures include: (1) improved plant quality, (2) improved soil quality, and (3) improved water quality through methods such as reduced nutrient and pesticide transport.

Features of High Tunnels

Commercially available high tunnel structures are made in numerous widths and lengths. The high tunnels are constructed of metal or plastic bow frames that are covered with a minimum of 6 mil 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.

Financial Assistance for High Tunnels

During the pilot period, high tunnel systems may be eligible for financial assistance through the Agricultural Management Assistance Program (AMA). Financial assistance will be limited to tunnels covering up to 5 percent of one acre (2,178 square feet) per farming operation – equivalent to a structure size of approximately 30 ft x 72 ft. The seasonal high tunnel has an expected practice life of 4 years.

Participant Responsibilities during the Pilot

NRCS is interested in evaluating the effectiveness of seasonal high tunnels throughout this pilot period. Participants will be asked to assist NRCS with this effort by providing the following information when requested:

- First year only – cost of the seasonal high tunnel system.
- Annual maintenance costs and requirements for the seasonal high tunnel system.
- How long did the structure extend the growing season?
- Did the seasonal high tunnel increase production? If so, how much?
- What rates of nutrients (N, P and K) were applied before and after the seasonal high tunnel structure was installed?
- What rates of pesticides (product and rate) were applied before and after the seasonal high tunnel structure was installed?
- Other observations and evaluations. Recommendations to improve their effectiveness.

Additional Eligibility Criteria and Limitation for Participating in the High Tunnel Pilot Program

- Applicant must be an eligible producer who can show sales or production of at least \$1,000 per year.
- High tunnels are eligible to be constructed on existing cultivated cropland. Sites must be approved by NRCS.
- High tunnels are to be constructed to manufacturer's design and specifications. All designs must be reviewed by NRCS.
- No alterations such as adding electricity, heat, or active ventilation are allowed under this program.
- All crop production must be done in the soil profile. No potted or containerized production will be allowed in these structures.
- No alternative uses for the high tunnel structure are allowed during non-growing season months-- no storage, no potted or containerized plant production, no housing of livestock or poultry.
- Participants will be responsible for operation and maintenance of these structures including clearing snow from on and around the high tunnel.

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