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# SEASONAL HIGH TUNNEL INITIATIVE

## APPLICATION SUMMARY:

### THE HIGH TUNNEL

**INITIATIVE** is a continuous sign up, and applications may be submitted at any time. EQIP applications will be evaluated periodically as funding becomes available.

**FIND OUT MORE AT:**  
[www.wa.nrcs.usda.gov](http://www.wa.nrcs.usda.gov)

**THE USDA NATURAL RESOURCES CONSERVATION SERVICE (NRCS) IS A LOCAL RESOURCE FOR INNOVATIVE CONSERVATION SOLUTIONS TO IMPROVE THE LAND AND PROTECT YOUR WAY OF LIFE.**

Financial assistance is now available through the **Environmental Quality Incentives Program (EQIP)** for producers interested in installing high tunnels on their property. High tunnels are simple, plastic-covered, passive-solar-heated structures in which crops are grown in the ground. High tunnels create favorable conditions to extend the growing season and may provide environmental benefits, such as:

- Improved crop health, vigor and protection
- Improved irrigation efficiency
- Localized source of produce for a potential energy savings

**Contact your local field office to learn more about the Seasonal High Tunnel Initiative.**

**To learn more about Seasonal High Tunnels, see back.**

# Get the Facts: Seasonal High Tunnels Improve Plant Productivity and Vigor

A degraded plant condition is defined as a condition where plant productivity, vigor and/or quality negatively impacts other resources or does not meet yield potential due to improper fertility, management or plants not adapted to site.

## Seasonal high tunnels help address this resource concern by improving plant productivity and vigor.

Plants established in the wrong climate or soil may be under stress and may never thrive, no matter how much fertilizer or water you supply. For plants to produce the expected yield, preferred products, or desired environmental outcomes they must be adapted to the site on which they are growing, provided with the appropriate amounts of nutrients, water, sunlight, and protection from unchecked animal, weed, insect, and disease pests.

### What are Seasonal High Tunnels?

Although they resemble greenhouses, high tunnels, or “hoop houses,” are quite different. High tunnels are simple, plastic-covered, passive-solar-heated structures in which crops are grown in the ground, not in pots. They are ventilated by manually rolling the sides up or down as needed, and are designed to extend the growing season and intensify production.

### Why use Seasonal High Tunnels?

High tunnel production is considerably different from field production. More detailed attention is required on water and nutrient management, temperature control, crop selection and continuous production strategies. The advantages of growing crops in high tunnels rather than in fields are:

- **Extended seasons:** High tunnel growers say that the environment in the high tunnel is one hardiness zone warmer than the field. The altered soil temperature and climate in a high tunnel extends the growing season of crops, enabling them to be planted earlier in the spring and to produce a crop later in the fall.
- **Weather protection:** High tunnels protect the growing crop from environmental stresses, such as drought, driving rain, hail, wind and temperature extremes.



- Labor efficiency
- Environmental control
- Improved quality
- Increased revenue per square foot

### Considering a Seasonal High Tunnel system?

When considering high tunnel production, growers should look at the whole picture. Producing a crop in a high tunnel is typically more costly than growing it in the field due to the structure’s capital costs and increased manual labor requirements. Other considerations include:

- **Initial cost and maintenance**
- **Different pest problems:** Within high tunnels, there tends to be increased insect pressure. The high tunnel creates a favorable environment for insect pests that are typically not seen in the field or are not an annual problem, such as tomato hornworm, cutworm, thrips, mites, and aphids.
- **Regular monitoring and labor**
- **Crop rotation:** The limited space in a high tunnel makes crop rotation more complex, so one single crop should not be grown in the same area for more than two consecutive years.

**For more detailed high tunnel information, go here:** <http://www.leopold.iastate.edu/pubs-and-papers/2010-01-iowa-high-tunnel-fruit-and-vegetable-production-manual>