Title of the Practice: Seasonal High Tunnel System for Crops (NRCS Conservation Practice 798)

Definition: A seasonal polyethylene covered structure that is used to extend the growing season in an environmentally safe manner.

Purposes: Seasonal High Tunnels (SHT) are used to improve plant quality and condition, improve soil quality with respect to fertility, physical properties and microbiological ecology, reduce nutrient and soil particle transport off site and generally support environmental quality by providing a locally-grown product for local consumers.

General Description of the Practice: Seasonal high tunnels are appropriate for cropland where extension of the growing season is desirable and climatic conditions do not support that extension without application of practices that alter the physical crop environment. The practice does not include greenhouses or low tunnel systems that may cover single crop rows.

A comprehensive SHT production strategy will consider the following management principles:

* Crops must be produced in the natural soil profile; however, permanent raised beds may be installed to improve soil condition, fertility and agri-ability access.
* The HT must be at least six feet in height and designed/constructed in accordance with the manufacturer’s recommendations with a frame made of metal, wood or durable plastic.
* The polyethylene covering chosen shall meet minimum specifications for the desirable temperature modification; at a minimum, 6-mil greenhouse-grade UV-resistant polyethylene.
* SHT structures shall be placed on cropland that is appropriate for the successful production of the selected crop mix.
* In climates where snow loads may damage the structure, the tunnel cover shall be removed or rolled up at the end of the season (unless designed to meet expected snow loads).
* Runoff from the structure shall be directed away from the SHT to minimize problems associated with ponding. Runoff shall be managed in an appropriate manner (detention, storage, stable outlet). Design capacity for runoff structures must be a 10-year frequency, 5-minute rainfall precipitation event.
* Vegetation shall be established on all soil disturbed in the construction process.
* The SHT shall meet local building codes.
* Select a SHT site after consideration of slope, sun exposure, soil quality, water drainage, prevailing winds, air drainage and soil pests.

Additional management considerations for specific resource concerns:

* The volume of water applied to soil in the SHT should not exceed the water holding capacity of the soil.
* To meet practice goals of improving air quality and reduced energy consumption, crops produced for sale and consumption shall be produced within commuting distances of farmers markets, fruit/produce distribution centers or other community facilities.
* Side curtains facilitate internal temperature control as do large doorways in end walls (that which also facilitate movement of materials/equipment in and out of the SHT).

Plans and Specifications: These shall include (at a minimum) layout and location of the SHT, erosion control, runoff and vegetative cover practices; materials list and structural details of the cover, including all necessary equipment appropriate to a “complete” system; procedures and timing for installing the SHT; protocols for removal of the cover prior to inclement weather (tornadoes, hurricanes, hail, snow, etc.); and site preparation.

Operation and Maintenance: An operation and maintenance plan that provides specific instruction for proper operation and maintenance of each component of this practice must be prepared. It will detail the level of repairs needed to maintain the effectiveness and useful life of the practice. Inspections and repairs shall be undertaken as needed. Operation of equipment near and on the site shall not compromise the intended purpose of the cover.

Practice financing (2014):

North Carolina

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| Practice | Component | Unit | Practice Rate |
| Seasonal High Tunnel for Crops\* | Quonset-style (arched) | Square foot | $2.76 |
| Seasonal High Tunnel for Crops | Quonset-style (arched) HU\*\* | Square foot | $3.32 |
| Seasonal High Tunnel for Crops | Gothic-style (peaked) | Square foot | $3.60 |
| Seasonal High Tunnel for Crops | Gothic-style (peaked) HU | Square foot | $4.32 |

South Carolina

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| Practice | Component | Unit | Practice Rate |
| Seasonal High Tunnel for Crops\* | Seasonal high tunnel | Square foot | $2.63 |
| Seasonal High Tunnel for Crops | Seasonal high tunnel HU\*\* | Square foot | $3.16 |

\*No size limit in 2014

\*\*HU = Historically Underserved and Beginning Farmer Rates