NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION

SEASONAL HIGH TUNNEL SYSTEM FOR CROPS

(NO.)

CODE 798

I. SCOPE

The work shall consist of furnishing and installing a seasonal high tunnel for crops (not to include heating or ventilation) in accordance with the manufacturer's recommendations. The intent is to improve the design and application of conservation practice standard that are appropriate for site specific conditions , indentified resource concerns, crop rotations, yields goals and other conservation and production considerations.

II. CONSIDERATIONS

Commercially available High Tunnel structures are made in numerous widths and lengths. The structures are constructed from metal, wood or durable plastic that is covered with a single layer of polyethylene and must be at least 6 feet in height. 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 a door and ventilation areas. Each structure covers several crop rows, is wide enough to allow crop growth to full maturity and is tall enough to allow spraying, cultivation and harvest to occur with the high tunnel structure intact.

III. SITE PREPARATION

High tunnels and the crop systems they support require daily maintenance. They should be placed in a location that is accessible by vehicles during all production seasons. A high tunnel system is typically sited in a crop production field, so the impact of the system on the growth and management of the crops around the tunnel must be considered.

There must be sufficient room around a high tunnel for the equipment and/or people that will be necessary to move or maintain it. Make sure to consider how irrigation and power will be delivered to the high tunnel, including during the winter months. Important considerations include orientation, airflow, shading, windbreaks, drainage, soil quality, nutrient management, weeds, and other pests.

IV. INSTALLATION

Installation of the unit shall be done in such a manner that erosion, air and water pollution are minimized to within the legal limits. The owner, operator, contractor or other persons, will conduct all work and operations in accordance with proper safety codes for the type of construction being performed with due regard paid to the safety of all persons and property involved.

Installation of associated conservation practices shall be as shown on the drawings, and shall be installed in accordance with the appropriate NRCS Construction Specification.

V. BASIS OF ACCEPTANCE

The acceptability of the seasonal high tunnel system shall be determined by inspection to verify that the high tunnel system is installed; and appropriate submittals are to be provided.

The Installer shall certify the installation complies with the requirements of the installation instructions provided by the manufacturer.

Acceptability of associated conservation practices shall be in accordance with the appropriate NRCS Conservation Practice Specification.

VI. OPERATION AND MAINTENANCE

Operation and maintenance for this interim conservation practice includes an annual review of the practice implementation and effects on the resources during the first 3 years of operation. Nevada NRCS is participating in a national 3-year pilot to test the validity of potential conservation benefits of the seasonal high tunnel system. Use of the interim practice standard requires annual reporting by Nevada NRCS to national headquarters. These reporting requirements are identified in Nation Bulletin 190-10-10. Ensure that each contract holder participating in the seasonal high tunnel pilot understands the operation and maintenance requirements for

annual evaluation and reporting due each December for three consecutive years.

REFERENCES

Community Garden Guide Season Extension - High Tunnel, NRCS http://plant-materials.nrcs.usda.gov/mipmc

Community Garden Guide Season Extension – Hoophouses, NRCS. http://plant-materials.nrcs.usda.gov/mipmc/communitygardens.html

University of Minnesota, http://hightunnels.cfans.umn.edu/resources.htm

“Part I: Introduction to High Tunnels”. Spaw, M. and William, K. http://www.hightunnels.org/foreducators.htm