

Guidance for Planning Seasonal High Tunnel Systems

The planning and use of the seasonal high tunnel systems for crop production generally requires the planning and installation of other conservation practices to address the resource concerns and to facilitate the proper functioning of the structure to achieve its intended purposes. The following practices and financial assistance elements may support the use of the seasonal high tunnel systems.

328 - Conservation Crop Rotation:

- Revising the crops and/or the sequence of crops grown under the seasonal high tunnel systems to address:
 - Pest control
 - Nutrient management
 - Market demand
 - Erosion control
 - Improve water use efficiency

340 - Cover Crop:

- Seeding and management of a cover crop after the tunnel is removed to address:
 - Pest control
 - Nutrient management
 - Erosion control
 - Manage soil moisture
- The following financial assistance elements are permissible as long as the cover crop is not harvested or grazed – otherwise these would be production costs and not appropriate.
 - Cost of seed, started fertilizer if needed
 - Seedbed preparation
 - Acquisition of knowledge needed to manage cover crop
 - Cost of cover crop termination (roller crimper)

330 – Contour Farming:

- Realignment of fields to fit the contouring and/or strips to:
 - Reduce erosion
 - Reduce sedimentation

557 – Row Arrangement:

- Realignment of crop rows or soil beds to address the following:
 - Erosion control
 - Management surface drainage
 - Utilize available rainfall
 - Facilitate furrow irrigation

590 – Nutrient Management:

- Manage the amount, source, timing, and method of application of nutrients using the seasonal high tunnel system to address:
 - Crop nutrient needs
 - Change in water management system e.g., from rainfall use to drip irrigation
 - Minimize nutrient runoff and/or leaching
 - Reduce nitrogen emissions
- The following financial assistance elements are permissible to implement a nutrient management system:
 - Cost of fertilizer or manure amendments that may reduce the loss of nutrients to the air or water e.g. urease inhibitor, nitrogen stabilizers, etc (not for organic)
 - Acquisition of technical knowledge to develop and implement a nutrient management system under the season high tunnel system

595 – Pest Management/Integrated Pest Management (IPM):

- Reduce the risk of pesticide runoff and/or leaching, development of an IPM Plan
- The following financial assistance elements are permissible to implement pest management (This does not include costs of suppression):
 - Cost for scouting
 - Planting of refuge areas to attract pest (cost of planting, foregone income)
 - Establishment of beneficial insect habitat (cost of planting, foregone income due to removal of acreage from production)
 - Acquisition of knowledge to plan and implement an IPM plan and/or manage refuge and beneficial insect habitat

412 – Grassed Waterway:

- Install to convey runoff from diversions, concentrated flows, and stabilize ephemeral/gully erosion.
- The following financial assistance elements are permissible to install a grassed waterway:
 - Cost to construct, earthmoving, shaping, and vegetation establishment

607 – Surface Drainage:

- Install to convey excess surface water from and around the seasonal high tunnel system

606 – Subsurface Drainage:

- Install to improve the soil environment for crop production by removing excess soil moisture and remove surface runoff

342 – Critical Area Planting:

- Establish permanent vegetation to stabilize erosion prone areas
- The following financial assistance elements are permissible for the establishment of permanent vegetation:
 - Earthmoving and/or seedbed preparation
 - Seed, fertilizer, and mulching material

441 – Irrigation System, Microirrigation:

- Install and manage a Microirrigation system to efficiently and uniformly apply irrigation water and maintain soil moisture for plant growth and prevent contamination of ground and surface water by efficiently and uniformly applying chemicals.
- The Microirrigation system may be eligible for financial assistance if the field has a history of irrigation within 3 of the last 5 years.

436 – Irrigation Reservoir:

- Install an irrigation water storage structure made by constructing a dam, embankment, or pit to store water for irrigation purposes.

362 – Diversion:

- Install a diversion to divert surface water away from the season high tunnel structure or divert runoff from the structure.
- The following financial assistance elements are permissible for the installation of a diversion:
 - Cost to construct, earthmoving, shaping, and vegetation establishment

449 – Irrigation Water Management:

- Developing and implementing a plan to determine and control the volume, frequency and application rate of irrigation water in a planned and efficient manner
- The following financial assistance elements are permissible to develop and implement an irrigation water management plan:
 - Acquisition of technical knowledge to plan and implement an irrigation water management plan
 - Record keeping, soil moisture determination, control and measurement of irrigation water to the season high tunnel system and monitoring

620 – Underground Outlet:

- Installed to convey surface water to a stable outlet
- The following cost share elements are permissible to install an underground outlet:
 - The cost of the conduit to convey the surface water to a stable outlet
 - Installation of the conduit