High Tunnels

A high tunnel — sometimes called a hoop house or passive solar greenhouse — is a simple, plastic-covered, quonset-shaped, relatively low-cost structure used primarily for extending the growing season for fruits and vegetables. A typical high tunnel is free-standing, with no heat or electrical power. The structure captures solar energy to warm the air and soil inside the tunnel and uses passive ventilation for air exchange and cooling.

High tunnels have gained popularity in Kansas because they provide protection from temperature extremes and extend the growing season by protecting crops from potentially harmful weather conditions such as frost, temperature fluctuations, precipitation, and wind. Fruit, vegetable, and flower producers find high tunnels profitable because they allow planting to begin earlier than outdoor planting, extending the growing season further into fall and winter. Earlier planting means earlier harvest and earlier marketing opportunities. High tunnels adapt well to small acreages, accommodate multiple planting rotations in a single growing season, and use less space than traditional outdoor garden plots. Extending the growing season to well after frost creates marketing opportunities for fresh fruits and vegetables.

This video contains information on:
* designing a high tunnel,
* planting in a high tunnel,
* basic and intensive management considerations, and
* resources for more information.

For more information about high tunnels contact your local K-State Research and Extension horticulture agent. Find an agent at: http://www.ksre.ksu.edu. For even more information about high tunnels visit the website: http://www.hightunnels.org. The site features news, resources, and a discussion listserv for high tunnel growers and educators. Visitors can subscribe to the listserv.

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Publications from Kansas State University are available at: www.ksre.ksu.edu/bookstore