



College of Food, Agricultural, and
Environmental Sciences
Ohio State University Extension

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News and
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Relations

Strawberry Season Gets Earlier

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PIKETON, Ohio -- Newer production methods in growing strawberries are allowing producers to enter the market up to 2 weeks earlier and utilize some California and Florida varieties. Some Ohio producers are practicing plasticulture strawberry production, which is growing strawberries on plastic. Plasticulture strawberries are planted in early fall on a raised bed of soil covered with black plastic. The plastic keeps the soil warm and suppresses weed growth. On average, 17,500 plants per acre are planted in the fall and harvested the following spring. Plasticulture production is generally an annual system therefore, after harvest the planting is removed and the process repeated. Some growers are trying to hold the plasticulture plants over for more than one year, but this is a relatively new system to Ohio and much on-farm research is still needed. Varieties that have proven to adapt well to annual plasticulture production are Chandler, Camarosa and Sweet Charlie. These varieties, grown in Ohio to full maturation are some of the sweetest berries you've ever tasted.

The plasticulture plants begin to grow during warm weather in the fall and winter establishing a strong root system and setting branch crowns. The plants are then covered with a row cover during the winter months to provide protection from the freezing temperatures. When spring arrives, the row covers are removed to allow for rapid growth of the plants. After the plants have been uncovered in the spring, cold, below-freezing temperatures call for the covers to be put back on and sprinkler systems to be run for frost protection. Last year in southern Ohio strawberries grown on plastic were being harvested May 12 as opposed to the usual date of May 26 for matted row-grown strawberries. The matted row system is the traditional way of growing strawberries in Ohio. For matted row strawberries it takes a year for fruit production but only requires around 5,500 plants per acre and can be utilized for a number of years as opposed to just one for plasticulture.

There are many advantages to the plasticulture strawberry production system including earlier fruiting, longer fruiting, and higher yields but in turn there are some

down sides. The expense of plasticulture is over \$4,000 per acre, not including labor. Some of this is due to the need for both drip and overhead irrigation. The overhead irrigation is essential for frost protection and the drip irrigation provides water and can be used to supply fertilizer during the pre-bloom, bloom and fruiting periods. Another reason for the increased cost is the inability to utilize the same plants for more than one year. The California and Florida varieties seem to be more susceptible to anthracnose, therefore not allowing for the plants to be carried over from year to year. As more research is done in this area, newer varieties may allow for carry over without facing disease problems.

Bill and Janet Stacy, of Marietta, Ohio have been growing strawberries on plastic for six years. The Stacys own 31 acres and decided to look for a way to maximize returns on their limited number of acres. They are working with Barclay Poling, small fruit specialist at North Carolina State University and Charlie O'Dell, Extension horticulturist at Virginia Tech. "The ability to maximize returns was the key to our decision to try plasticulture," says Bill Stacy. Stacy agrees that there are advantages and disadvantages to the plasticulture system. He says that the advantages are " the quality of the berry and the ability to make mistakes the first year and know that you only have to live with those mistakes for one season." "The high input costs, the time sensitivity of the whole system and the high degree of management required are the disadvantages." The Stacys agree that more research is needed in the northern climates instead of having to rely on North Carolina and Virginia research. Recently they worked with their agricultural Extension agent, Eric Barrett, to write a Sustainable Agriculture Research and Education grant to do additional research on their farm with plasticulture strawberries.

For more information on plasticulture strawberries contact the OSU Centers at Piketon, 1-800-297-2072.