

High Tunnel Technology

Start-up costs	
Structure costs (frame, side boards, roll-up parts and side walls)	\$1,090.62
Construction Labor	\$ 256.00
Plastic (cover for tunnel and plastic for rows)	\$ 266.89
Trickle Irrigation System	\$ 85.00
Total Start Up Costs	\$1,698.51

Annual Costs	
Plants	\$ 28.80
Stakes and string	\$ 63.00
Fertilizer	\$ 25.00
Containers	\$ 110.00
Labor	\$ 414.00
Misc. (small tools, repairs, etc)	\$ 25.00
Total Annual Costs	\$ 665.80

Annual Returns and Expenses	Per Tunnel	Per Pound
Receipts 2,000 lbs. @ \$1.60/lb	\$3,200.00	\$1.60
Marketing Costs	\$ 800.00	\$.40
Total Annual Costs	\$ 665.80	\$.33
Net Annual Returns	\$1,734.20	\$.87

As with all agriculture, the available market is one of the largest factors to be considered. In some more urban areas, retail tomatoes start at \$2.40 per pound.

Report On Other Crops

The other trials conducted in the high tunnel were largely successful as well. Cantaloupe and watermelon were planted in

the other house on May 9. The objective for the cantaloupe was to harvest them as early as possible in order to again capture the early market. The variety of cantaloupe tested was Earligold, a variety with 68 days until harvest. The first harvest was made on July 8 but the numbers did not increase until a week later. In spite of their relatively small size, they sold for \$2.50 each because of their earliness. One deficiency observed was that they did not have the taste that later melons develop.

Two different varieties of watermelons were tried: Golden Crown and Million Bucks. Golden Crown is a small round melon, yellow on the outside and red on the inside. They have excellent taste and are very early with only 60 days until harvest. These melons also sold for \$2.50 each and are very popular at the farmer's market. They were first harvested on July 9. The other variety of watermelon, Million Bucks, is a large traditional melon. They possess good size and flavor. Million Bucks was first harvested on July 30 and they take 78 days until harvest. They sold for 30 cents per pound. The problem with both watermelon varieties was low yield. This possibly could be due to a lack of effective pollination; however, the cantaloupe in the same house yielded very well.

Another experiment was to plant three plants of a patio tomato to observe how they would yield. The variety was called Fourth of July and had 44 days until harvest. The first

harvest of Fourth of July was on July 19, two days after the first harvest of Bush Early Girl, so they were extremely late. Their yields were excellent.

Gurney's Giant, the variety of pepper grown, is a large thick-fleshed pepper. They did very well in the high tunnel and produced large, excellent quality peppers. They have 70 days until harvest with the first harvest on July 5. One problem with growing peppers in the high tunnel is that the plants grew so large that they had to be staked so that they did not fall over.

Variety	Seeded	Planted	Days Until Harvest	First Harvest
Million Bucks	3/27	5/9	78	7/30
Golden Crown	3/27	5/9	60	7/9
Earligold	3/27	5/9	68	7/8
4th of July	3/27	5/1	44	7/19
Gurney's Giant	3/25	5/9	70	7/5

The final analysis of this year's trials indicate that some changes should be implemented for the small scale grower. The melon house should be planted completely in high value muskmelons because watermelon do not seem to produce the level of yields required to make them worth the space

implemented for the small scale grower. The melon house should be planted completely in high value muskmelons because watermelon do not seem to produce the level of yields required to make them worth the space. That space could be better utilized to grow something else more profitable. Additionally, there is excessive room for making mistakes when harvesting watermelon.

In the high tunnel there was no way of knowing just how much the additional night heat sped up the watermelon's maturing process with the result that the days until harvest did not indicate clearly as to when to expect ripening. As you can see by the chart comparing the days until harvest, the peppers taking 70 days were harvested 14 days early. This was typical for many of the crops in these trials.

It is difficult to determine how different species of plants are going to react to high tunnel growing conditions. Watermelons are especially hard because they do not offer a reliable way to discern harvestability. This year many mistakes were made wasting melons by taking them underripe.

Conclusion

High tunnels are an excellent way to get the edge of the early or late markets for vegetables. They can be very profitable and therefore a good supplement to a small farm's income. Another way to use a tunnel is to take advantage of the early start and grow several consecutive crops of vegetables in the same season.

Period Extended For Proposals

WASHINGTON, D.C. — The USDA is extending the submission period for proposals for a national sheep and lamb promotion, research, and information order from Dec. 23 to Feb. 1, 2000.

An order is authorized by and must be consistent with the Commodity Promotion, Research, and Information Act of 1996. Proposals for an order or for portions of an order may be submitted by any interested person, group, or organization.

Kathleen A. Merrigan, administrator of USDA's Agricultural Marketing Service, said an order would provide for assessments on sales of sheep and lambs and for an industry board to carry out promotion, research, and information programs designed to increase the demand for sheep and lamb.

The request for proposals for a sheep and lamb promotion, research, and information order was published in the Nov. 23, Federal Register. Responses should be sent in duplicate to Ralph L. Tapp, Chief, Marketing Programs Branch, Room 2627-S, Livestock and Seed Program, AMS, USDA, 1400 Independence Avenue, SW, Washington, D.C. 20090-6456, to be received no later than Feb. 1. For additional information, call (202) 720-1115.

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