Economics and Marketing of Winter High Tunnel Production

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Now that we know it is possible, with the assistance of some protected structures, to harvest food year-round in most northern climates it is important to ask ourselves just why we would do that. By this point a lot of the arguments for why we should produce year-round in Northern climates are fairly established, but they are worth revisiting to form a background for what we are going to talk about. Some of the main reasons, though clearly not an all-inclusive list, from the farmer perspective are the potential for increased sales and subsequent increased farm income, year-round contact with customers, and additional year-round activity on the farm. That being said, we need to make sure that the farm is in fact making money from the increased sales and that the farm can pay-off the investment in the high tunnel structure(s). We also need to make sure that we realize that farming year-round is hard work and that the winter "down-time" on a northern farm can be important for our health and longevity.

Marketing Options

There are similar marketing outlets to the traditional spring through fall growing season, and similarly to that time period, there are challenges and opportunities with each. Extending farmers markets to function during longer periods of the year is a natural fit for year-round production farms. The customers are already in a habit of coming to a specific place at a specific time and by extending the time the market runs the customers tend to continue to come as well. Considerations for year-round markets should include an indoor space (although some markets do function year-round in outdoor venues), close proximity to the "in-season" location if that location is outdoors, and enough vendors to ensure that there will be a variety of products available for consumers.

CSA is another marketing outlet that can continue your-round. Some farmers who are operating year-round CSAs have stated that they either offer weekly or bi-monthly distributions. Most are also supplementing the produce from their high tunnel(s) with either storage crops such as onions, garlic, potatoes, winter squash, etc. that are coming out of cold storage and/or value-added products such as jams or jellies, pickled or preserved vegetables, baked goods, and even alcohol in some cases.

At Ten Hens Farm we harvest everything to order. When we started selling in the winter we didn't know how much we would sell so rather than harvest a large amount, not sell it all, and have less to harvest out of the tunnel the following week(s) we decided that we would only harvest what we sold. We send an email on Sunday nights and customers place their email orders by Tuesdays at 4pm. We then harvest either Tuesday night or Wednesday mornings for pick up at our farm on Wednesdays from 5-7pm. This has worked well for us, especially as we are both working full-time, off-farm jobs.

Restaurants and other institutional sales such as schools, hospitals, etc. are also an option.

Pricing

Pricing for winter production can be a challenge as it is difficult to compare to field production when nothing is growing in the field. There are a number of ways to approach pricing for winter growing high tunnel produce.

The first would be to know the cost of production, including a cost for the high tunnel structure over time, and to price a certain percentage above the cost of production. For example, if it cost $1 to produce a head of lettuce, $2/head may be a reasonable price.
Another option would be to consider how much the customers will pay based on your market/marketing option(s). Customers at one location may not necessarily pay the same as customers at another location. At a minimum, I think that the price for winter production should be at least 50% higher than what you would sell the same product for out of the field "in-season."

Another approach would be to check at the local grocery store for the same products. If they are carried there and are shipped in from a distant location that has weather more conducive to outdoor growing, then that can be used as a minimum price for your products. Local high tunnel produce is going to be much fresher than what is available in the store and that should be reflected in the selling price. A premium product should have a premium price.

A different approach to pricing that we have used and are developing more on our farm is to decide how much we want to make from the hoophouse on a whole over a 12-month period. We have 20 beds (~100 sqft each) that run the short distance across the tunnel. If we pick the gross sales number that we want to meet for the year and divide that by 20 then we know how much we need to make from each bed over the course of the year. We also know that we will have approximately four crops/bed/year. So, if we take the gross sales per bed and divide that by the number of crops we can determine how much we want to make/crop. If we have a good idea of the yield per area/crop then we can use that to set the price per unit. For example, if we want to gross $20,000 in our high tunnel and we have 20 beds, then we know we need to make $1000/bed/year. If we have four crops/bed then we would need to make $250/crop. If we can fit 100 heads of lettuce in one bed then we would need to sell them at $2.50/head to gross the $250 for that crop. We know that there are some crops that will not make that much but that our customers like to purchase (i.e. radishes in our case). But we also know that crops like baby salad mix and tomatoes make more than that $250/bed. We can grow some of the crops that make less than the $250, we just do not want to grow too many of them. This has worked out fairly well so far and as we are able to spend more time and energy in our tunnel to refine what we are growing and how we are growing it I think the $20,000 gross for about 2000 sqft of production space is possible.