

Workshop Title: Innovative Season Extension Techniques

Speakers & their titles: Norm Hunter (Open Sky Cooperative, NB), Patrice Finnigan (M. Tomate, NB) and Jean-Pierre Privé (Plant Medic Inc., NB)

Executive Summary

In this session Norm, Patrice and Jean-Pierre discussed their personal approaches to season extension and the techniques they use. Included in this discussion are the use of movable (siding) greenhouses, large greenhouses using container growing systems and the complimentary use of row covers, rain shelters and field tunnels. Together they have a wealth of growing experience and all approach the question of season extension differently.

Detailed Notes

Norm Hunter (Open Sky Cooperative) has used a variety of moving greenhouses over the past 20 years. He began with greenhouses sliding on wooden rails and then moved to a system made by Rimol that slides with wheels on metal rails and is fixed to posts in the ground. Moving greenhouses allow for early season extension and can be moved for later season crops that require more heat and controlled conditions. This also allows for weather exposure of the ground under the structure and can mitigate against salt build up in the soil from compost and other amendments. The moveable greenhouse also allows for a recreational gardening and “hang-out” space during the cold winter months and can be very therapeutic.

Norm has assembled and reassembled these structures in several places, which can be done relatively easy with a group of people. Moving the greenhouse along the rails also requires help from a group, which can be a community-building exercise and introduce people to greenhouses and growing spaces. Norm uses several cold frames within the greenhouse during winter months and lays wood chips and cardboard in walking paths for harvesting comfort and weed suppression.

Patrice Finnigan (M. Tomate) began growing tomatoes and other hot-house crops 30 years ago using conventional methods but then switched over to organic practices. Patrice’s greenhouse system uses a 7,000-gallon water tank and sawdust fired furnace for heat early and late in the season. In 2011 he built a new greenhouse system with an automatic computerized system to control ventilation with higher gutter containers for crops, drip line irrigation and drain tile down the center aisle. Patrice uses a cart on rails to travel down the rows and a scissors lift to harvest fruits later in the season when tomatoes plants are trellised

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up high. Fertility amendments are included in solid state and each crop is fertilized 4-6 times. Earthworms were added to the growing mix and buckwheat and barley are used as green manure grown between crops.

Jean-Pierre Privé (Plant Medic Inc.) sees season extension in terms of mitigation and adaptation to seasonal changes. This includes changes throughout the season, and capitalizing on trends in climate change are bringing warmer winters, warmer nights, and wetter seasons. Jean-Pierre warns against jumping right into using protected structures such as tunnels or greenhouses since they require more management and risks generally have a higher consequence given the more concentrated climatic conditions. Season extension includes choosing specific crops and cultivars and understanding your specific growing environment in order to take advantage of microclimates and regional growing conditions. Consistent trialing and testing is required to understand how to best extend your season given your specific growing environment. Cultural practices and site selection can extend the growing season early and late and row-covers, wind breaks and other minor alterations can also be included in these strategies.

Jean-Pierre then discussed trials of different crops in portable walk-in tunnels. Tomatoes work well in tunnels, especially cherry and grape tomatoes, as do peppers, especially red Carmen peppers. Cut flower production was generally better in tunnels than outside but was quite variable in his trials. Sweet potatoes showed a 243% increase in yield in tunnel over production outside. Sustainability includes financial viability, which using protected structures and other season techniques can increase substantially. He showed a slide comparing yield and income per row foot for crops grown inside tunnels and outside and most crops can be increased \$2-\$20, however strawberries did not work out so well in tunnels.