High Tunnel Case Study Cala Farm



The Farm

Cala Farm is run by brothers Juan Carlos and Rodrigo Cala. They farm 18 acres total with nearly a third of an acre in high tunnels. Before adopting high tunnels the farm lost money on tomatoes every year. Now tomatoes are their most important crop and high tunnels are a major part of their farm.

The Tunnels

- Six high tunnels total:
 - Three 26'x96' with open ends and straight sides from FarmTek.
 - One 20'x72' with rounded side walls from FarmTek.
 - Two 22'x100' gothic style from Zimmerman's Welding.
- Drip tape irrigation.
- Roll up side walls.
- Thermostat controlled vent fans.*
- Propane fueled heaters.*
- Single wall 6mm plastic on open ended tunnels.
- Double wall 6mm plastic*
- No lights.

*Only on fully enclosed high tunnels

"If I had known what it was like to grow in Minnesota I would have gotten high tunnels much sooner. I have seven more tunnels right now still in boxes — I just need to find the time to build them!"



Photo credit: MPR / Ambar Espinoza

"You need to check different brands and find something that fits your farm. Sometimes a \$5k tunnel is just as good as a \$20k tunnel, it just depends on where you live."

Crops:

- Tomato very profitable
- Bell Peppers
- Spinach
- Salad mix:
 - Lettuce
 - o Arugula
 - Kale



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Advice from Rodrigo

"Rotations are really important. We won't grow tomatoes in the same tunnel each year. All our other crops are just to control disease."

"They say the plastic is only good for four years, but we have some that is eight or nine years old and its fine. We clean and patch the plastic and its fine for years."

"Using plastic and straw to control weeds saves us a lot of work. I have a system – I wait till the weeds are an inch tall before I put down the straw and it works really well."

"The soil health in the high tunnels has improved a lot over the years."

"We check young plants a lot in spring in case it's cold. In summer though we just roll up the sides and trust the fans."

"You need a plan to manage your water and fertility because tunnels are so different from the field."



Created by Colin Jones for the: High Tunnel Immigrant Farmer Training and Demonstration Plot SARE Project: ONC17-029

Management:

- Transplants tomatoes from heated tunnels to open ended tunnels in July.
- 45 extra growing days in fall for open ended tunnels.
- Plants a month earlier and grow a month later in heated tunnels.
- Plow and disk in spring.
- Manure for fertility.
- Winter rye, buckwheat and sudangrass cover crops.
- Plastic mulch in beds and straw between rows to control weeds.
- Rotate crop location each year to control disease.
- Carefully controls irrigation to reduce moisture and risk of blight/powdery mildew.
- Keeps plastic up year round on heated tunnels. Removes plastic on open ended tunnels.

Cost and Upkeep:

- New tunnel cost about \$11,000.
- New Plastic: \$600-1500 per tunnel
- Need to patch plastic 20 times per year. Easy to do with special tape.
- Estimated early cost of each heated high tunnel is about \$2,000.
- \$10,000 profit in the very first year with only 450 tomato plants.