

Homegrown is best; cover crops for nitrogen and soil health in high tunnels

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Cornell Cooperative Extension

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Home Grown-today's message:

High tunnel soils need some love

Winter cover crops can scavenge and fix nitrogen, improve soil health

Row cover and seeding date are the keys to maximizing biomass/N

Earlier dates favor the growth of peas, later dates, grains

This system isn't perfect

- No winter greens

- Pest concerns


- Additional tillage


Too much of a good thing is not a good thing.


Element	lbs/acre*	Very Low	Low	Optimum	High	Very High
Phosphorus (P)	642					
Potassium (K)	333					
Calcium (Ca)	33,807					
Magnesium (Mg)	3,977					

Element	Value	Element	Value	Element	Value
Soil pH	7.5	Zinc (Zn), lbs/acre	33	% OM	19.4
Iron (Fe), lbs/acre	10	Aluminum (Al), lbs/acre	9		
Manganese (Mn), lbs/acre	62	Soluble Salts, mmhos/cm	3.2		

Measures of soil health beyond chemistry

Result, mg/liter	Low	Moderate	High
CO2 Burst 86			

Result, mg/kg	Low	Moderate	High
SLAN 245			

Result (%)	Very Low	Low	Mod	Very Good	Excellent
VAST 8.89					



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Tunnel 3,
3/21/2019

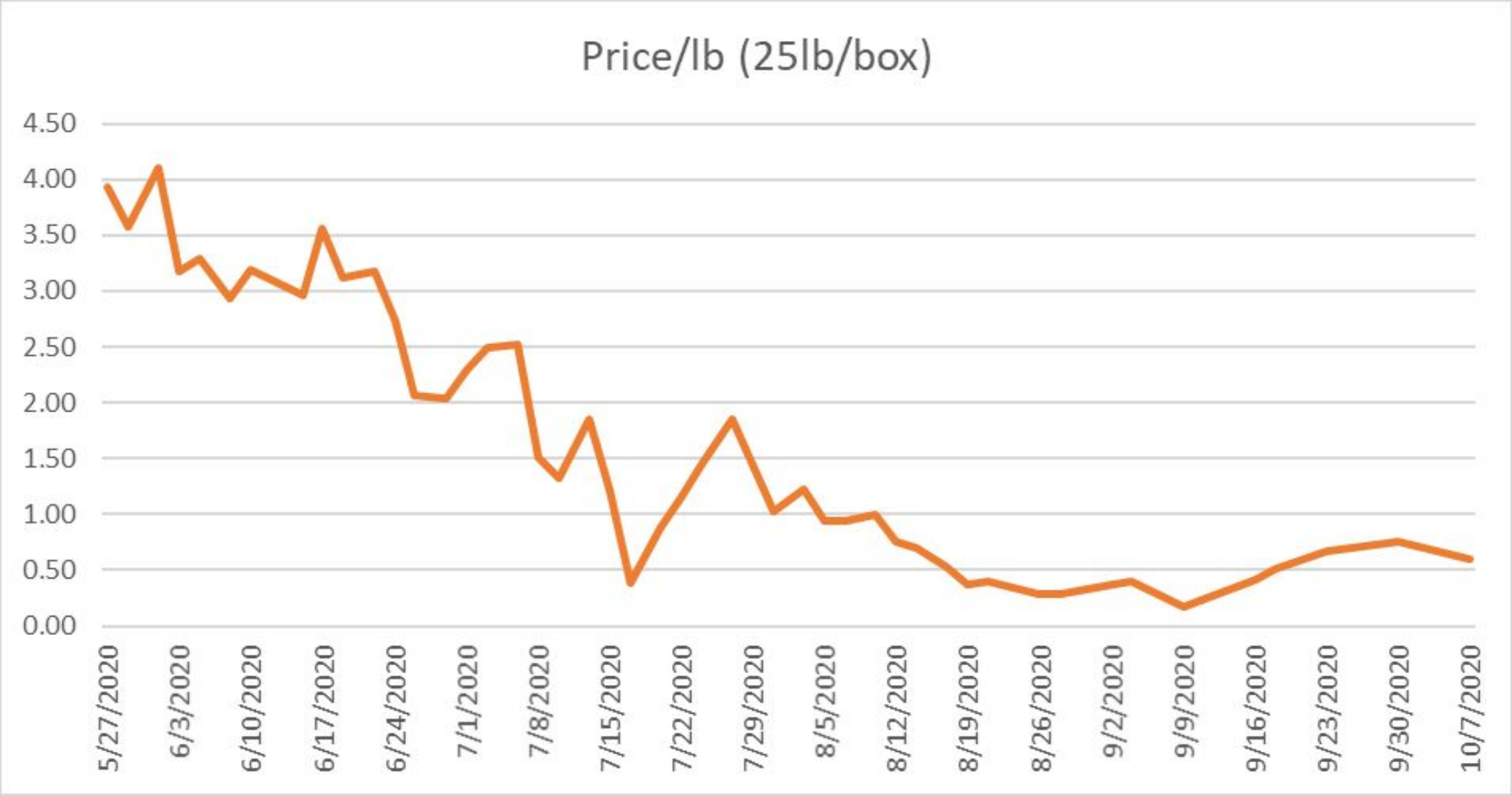
row cover

no row cover





Farmer data- tomato wholesale price

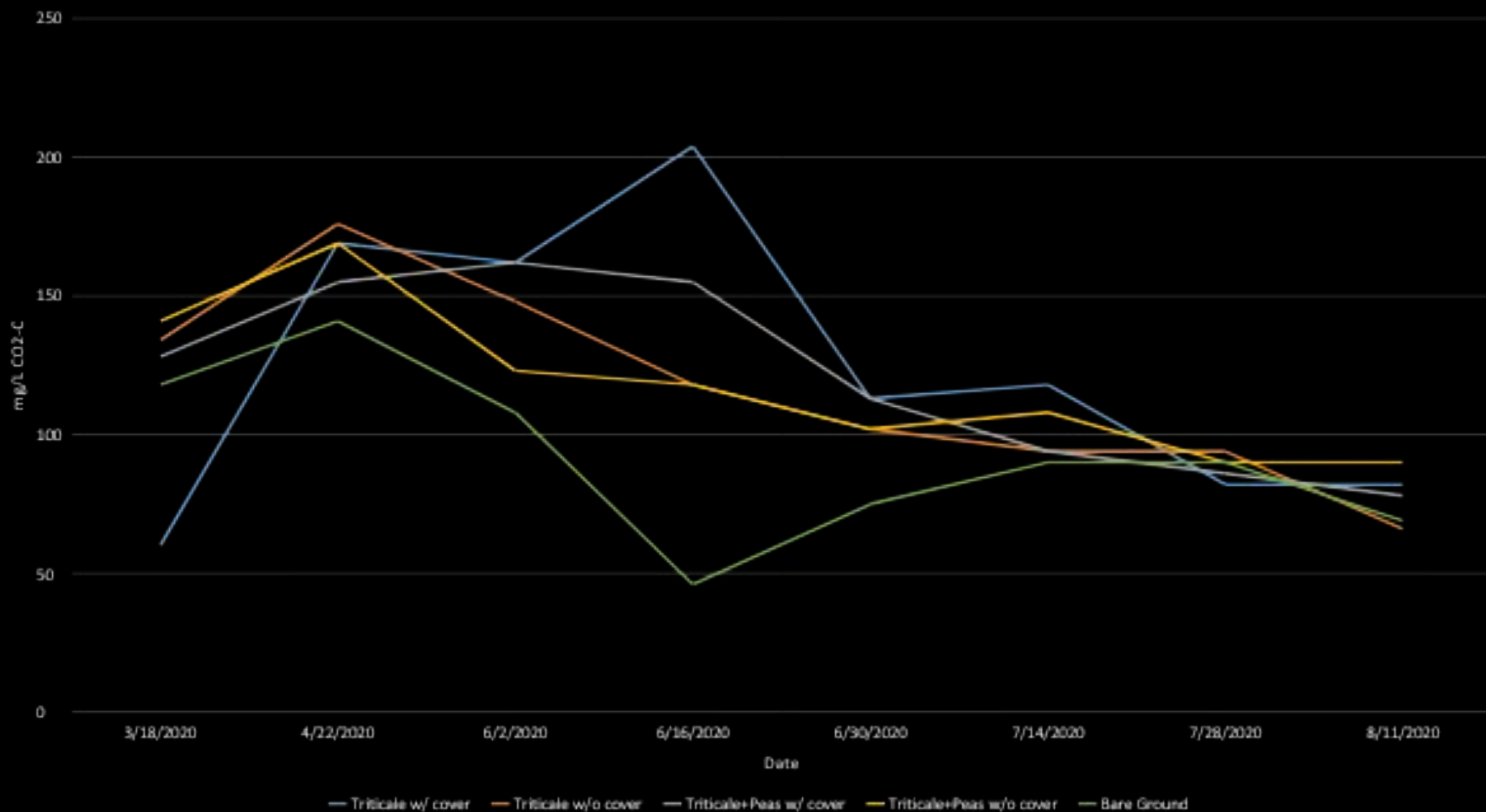








CO2 Burst



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