Tomato Field Test for Evaluation of Montana Red, Spring 2017

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Treatments

#	Treatments
1	Untreated (water spray)
2	Montana Red spray at 8 oz/gal every 3 wk

Note.

Treatments were performed using a CO_2 back-pack sprayer 3 times on 3/23, 4/13, and 5/4, which were 14, 35, and 56 days after planting, respectively.

Materials and Methods

Plant material

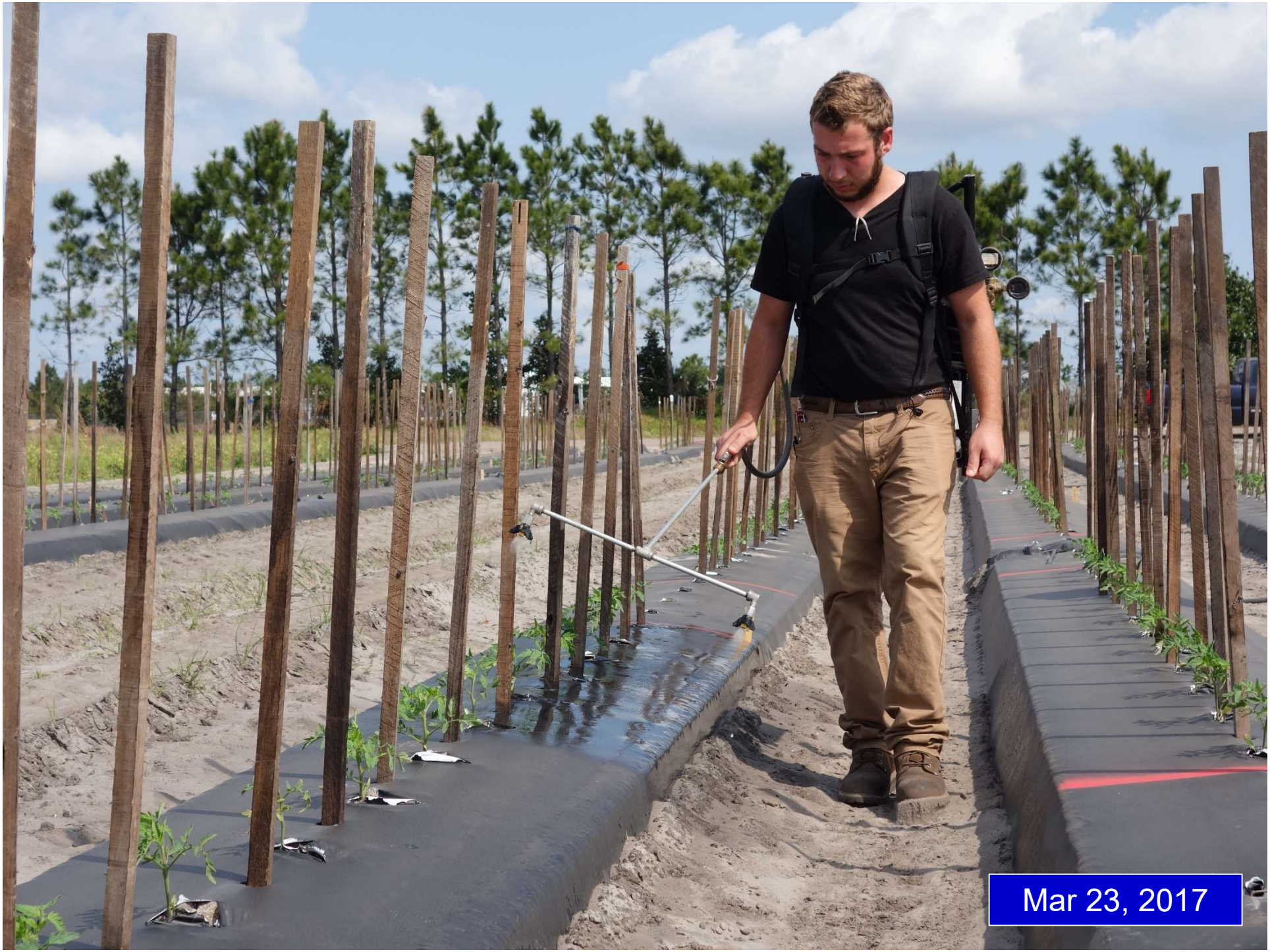
Tomaton ‘HM1823’

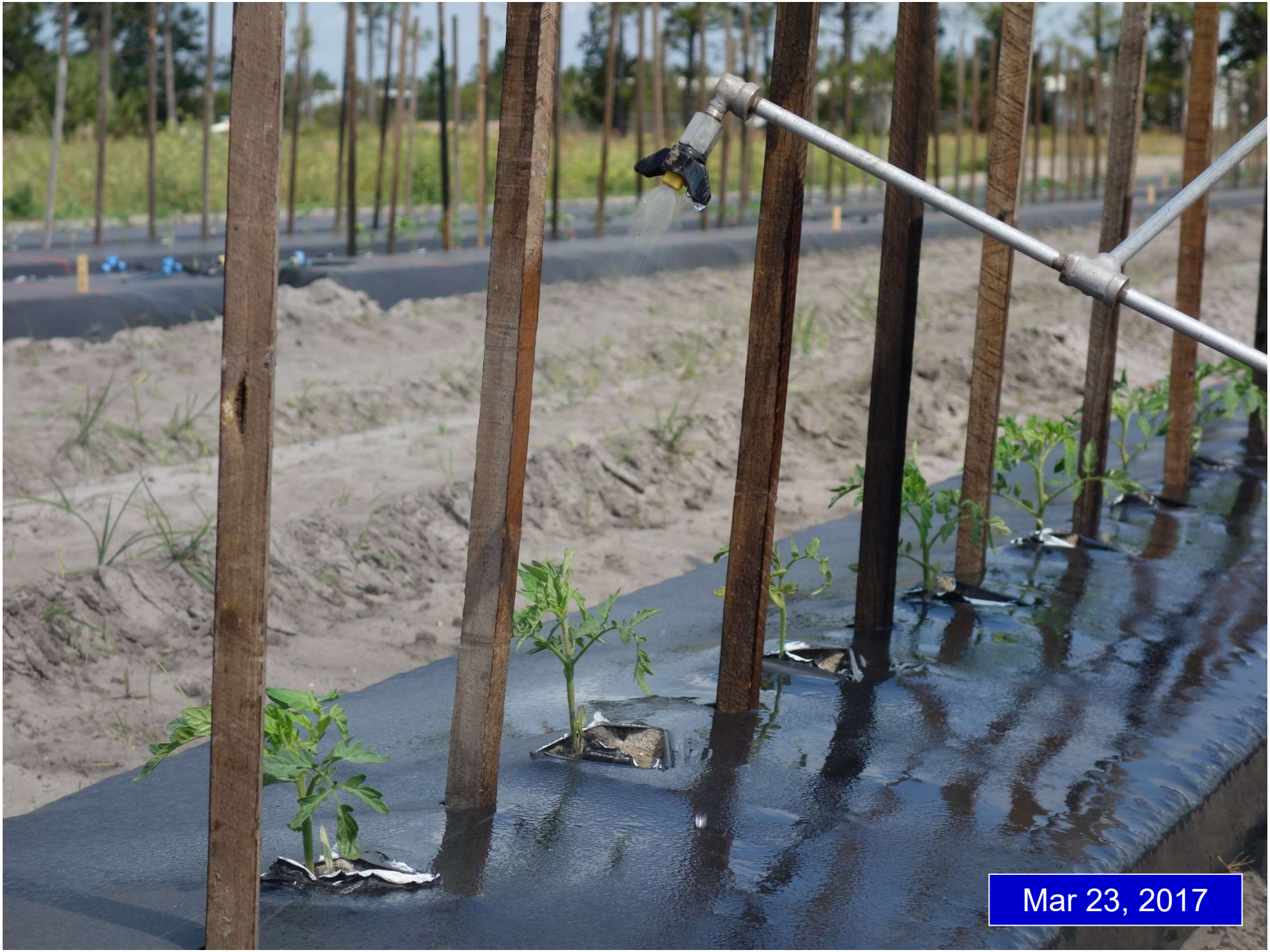
Experiment design

- Randomized complete block design
- 12 plants/plot
- 4 plots/treatment

Schedule

- Mar 9 Planting
- Mar 23 1st Montana spray treatment
- Apr 13 2nd Montana Red spray treatment
- May 4 3rd Montana Red spray treatment
- May 30 1st harvest
- Jun 6 2nd harvest


Mar 23, 2017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Mar 23, 2017

Untreated

Montana Red

Mar 23, 2017

Fruit Yield

Treatment	Marketable yield			Total yield (lb/acre)	Marketability (%, wt/wt)
	Fruit set (no./plant)	Fruit size (g/fruit)	Yield (lb/acre)		
Untreated	33.1	192	80,963	98,218	82.8
Montana Red	34.9	199	88,104	102,521	85.9
	Significance				
Treatment effect	NS*[1]	NS	NS	NS	NS

*[1]NS = not statistically significant.

Yield Grading

Treatment	Marketable yield (lb/acre)			Unmarketable yield (lb/acre)		
	Medium	Large	XL	Small	Disease	Culls*[1]
Untreated	3,919	12,467	64,578	1,083	14	16,157
Montana Red	3,328	11,573	73,203	1,323	429	12,665
	Significance					
Treatment effect	NS*[2]	NS	NS	NS	NS	NS

*[1]Culls = misshapen, scar, sunscald or other damage.

*[2]NS = not statistically significant.

Plant Biomass at Harvest

Treatment	Shoot biomass*[1] (lb/plant)
Untreated	3.37
Montana Red	3.59
	Significance
Treatment effect	NS*[2]

*[1]Fresh w eight at the final harvest.

*[2]NS = not statistically significant.

Summary

- Montana Red treatment increased both number and size of marketable fruit by 5% and 4%, respectively.
- Montana Red treatment increased marketable yield by 9% and XL fruit yield by 13%.
- Montana Red treatment increased plant shoot biomass at the end of the season by 7%.
- Treatment effects described above were not statistically significant.