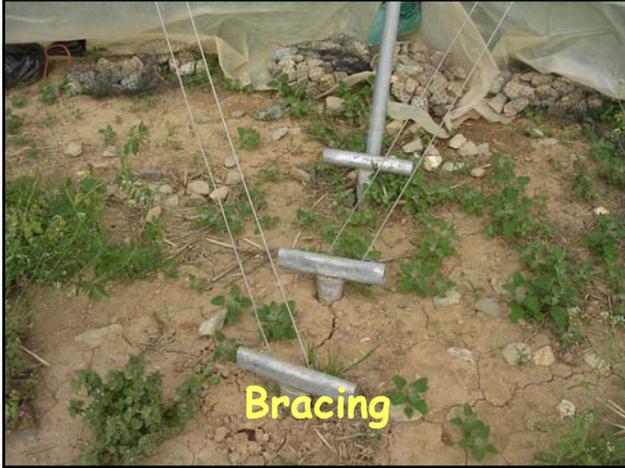


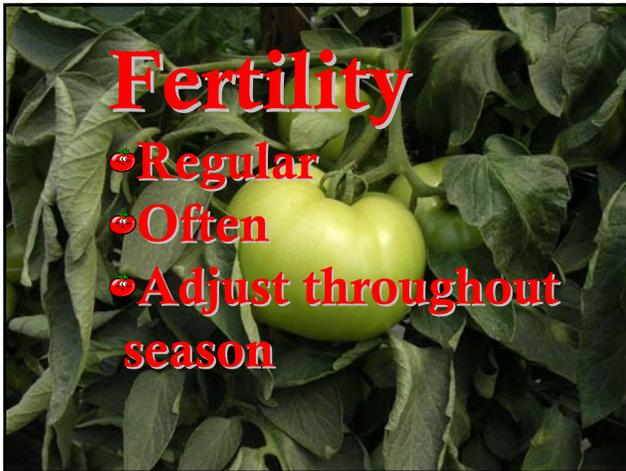
Venting



Venting









**3,3537 25lb boxes
Per Acre**



Heirloom tomatoes



Pickin' in the rain?

NO Problem!



September 23



Expandable



Grafting



Scion

Rootstock



**High horsepower
"Grafted"
snow blower!**



The Bottom line...

Grafted-55.9 tons/A
4,472- 25lb boxes/A

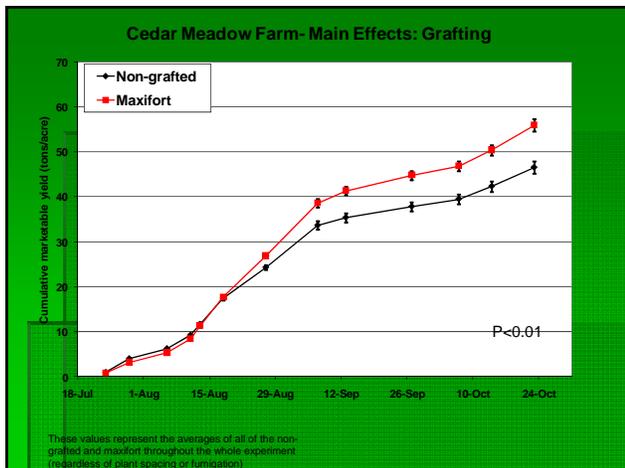
Non-Grafted-46.5 tons/A
3,720- 25 lb. boxes/A
20% increase in yield

The Bottom line...

- 9.4 more tones per acre
- Or, 752 more boxes per acre
- @ \$12.00 per box (#1's and #2's)
= \$9,024 increase
- Or, \$2.85 per plant increase

How much does it cost to graft?

- Healing chamber
- Labor costs
- Grow 2 sets of plants



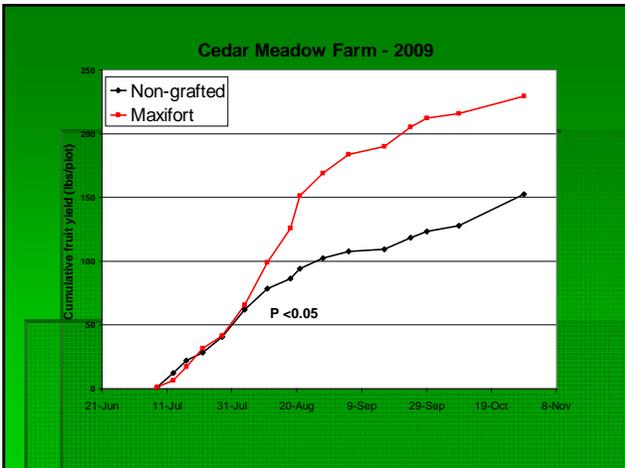
The Bottom line...

2008

Grafted-55.9 tons/A
4,472- 25lb boxes/A

Non-Grafted-46.5 tons/A
3,720- 25 lb. boxes/A

20% increase in yield



The Bottom line...

2009

Grafted-68.8 tons/A
5,504- 25lb boxes/A

Non-Grafted-45.8 tons/A
3,664- 25 lb. boxes/A

50% increase in yield

The Bottom line...

Average 2008-2009

- 16.2 more tons per acre
- Or, 1,296 more boxes per acre
- @ \$12.00 per box (#1's and #2's)
= \$15,552 increase
- Or, \$4.86 per plant increase

Economics

Net returns of grafting (\$/acre) : 2008

	Non-grafted	Maxifort	(Max-Std*)
18" Spacing	\$44,525	\$47,366	\$2,841
24" Spacing		\$47,827	\$3,302
36" Spacing		\$45,533	\$1008

Net returns of grafting (\$/acre) : 2009

	Non-grafted	Maxifort	(Max-Std ¹)
Fumigated	\$47,739	\$60,699	\$12,960
Non-fumigated		\$57,677	\$9,938

*Std = 18" plant spacing (2008), Std¹ = fumigated at 24" spacing (2009)

Values in white text = Gross revenue – harvesting costs – transplant costs – fumigation costs

How much does it cost to graft?

- Healing chamber
- Labor costs
- Grow 2 sets of plants

Is Grafting in your future?

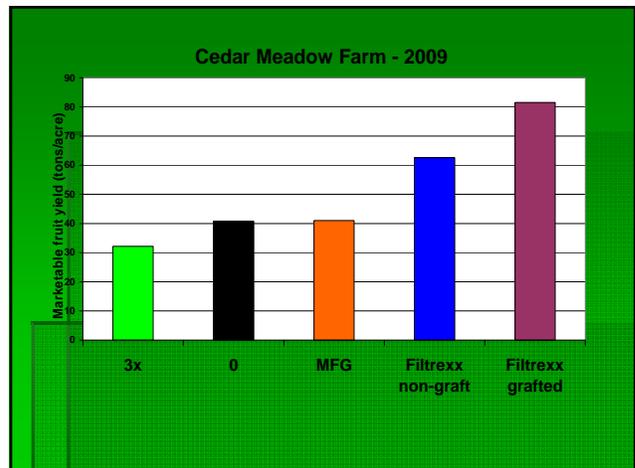


2010-Reality Check?

- Grafting-lower percentage of success
- Had some nutrient burn-boron
- Verticilium pressure is increasing

Grow Bags??

- Disease free soil/compost
- Will require increased water management
- 2 years?
- What is the cost?
- Solution to long term tomato production in high tunnels?









My Experience with High Tunnels

Steve Groff
Cedar Meadow Farm
Holtwood, Pennsylvania