

# Managing Rhizoctonia in Potatoes

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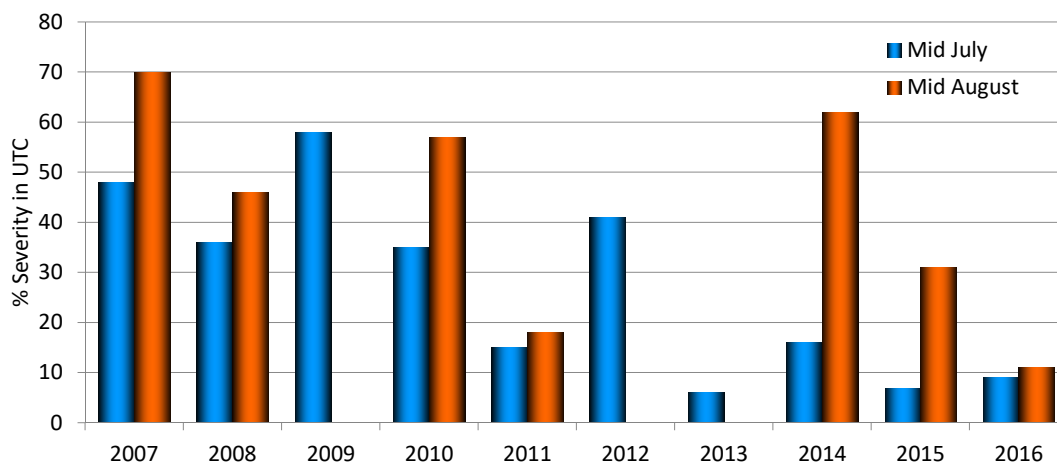


## Rhizoctonia Canker and Black Scurf



## Effect of Year on Rhizoctonia Severity

Russet Burbank; 3-year rotation; non-inoculated



Environment and seed can have a large effect.

## What is the best fungicide application method?

**Seed – Best for treating  
seed inoculum?**

**In-furrow –Best for treating  
soil inoculum?**



From Mike Thornton, University of Idaho

## Not all Rhizoctonia is the same

	Anastomosis Group							Total
	3-PT	2-2IIIB	4HG-I	4HG-III	5	A	R	
Black scurf	40	1	0	0	1	3	2	47
Stem canker	1	5	2	2	0	0	0	10
Stolon canker	0	0	1	0	0	0	0	1
Elephant hide	25	1	0	0	0	9	1	36
Growth crack and elephant hide	10	0	0	0	0	1	0	11
Potato rhizosphere soil	2	1	0	0	0	0	0	3
Corky spots	0	0	0	1	0	3	0	4
<b>Total</b>	<b>97</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>16</b>	<b>3</b>	<b>131</b>

Muzhinji et al., 2015, Plant Dis. 99:1790-1802

## Rhizoctonia Control Options

### Seed treatments

- Tops MZ
- Maxim MZ
- Maxim 4 FS
- Moncoat MZ
- CruiserMaxx Potato
- CM Potato Extreme
- Emesto Silver

### In-furrow fungicides

- Quadris
- Moncut
- Priaxor
- Vertisan
- Blocker
- Serenade Soil
- Elatus



## Rhizoctonia on June 21

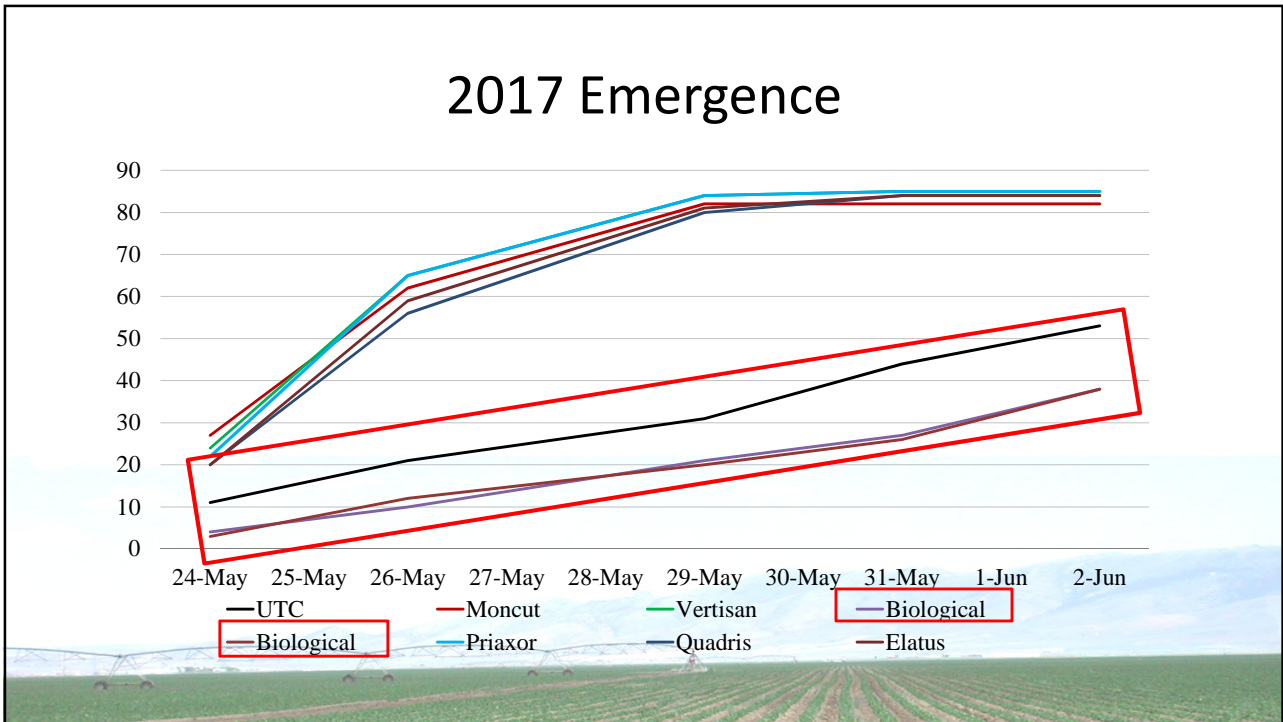
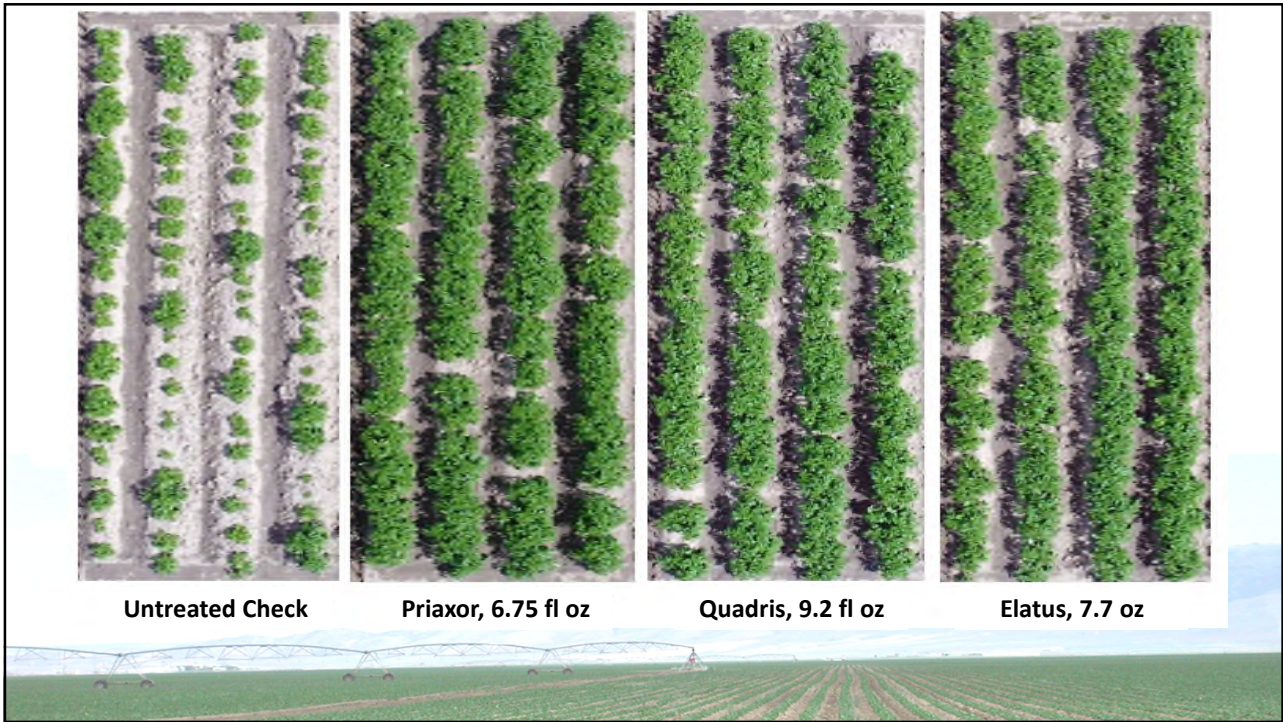


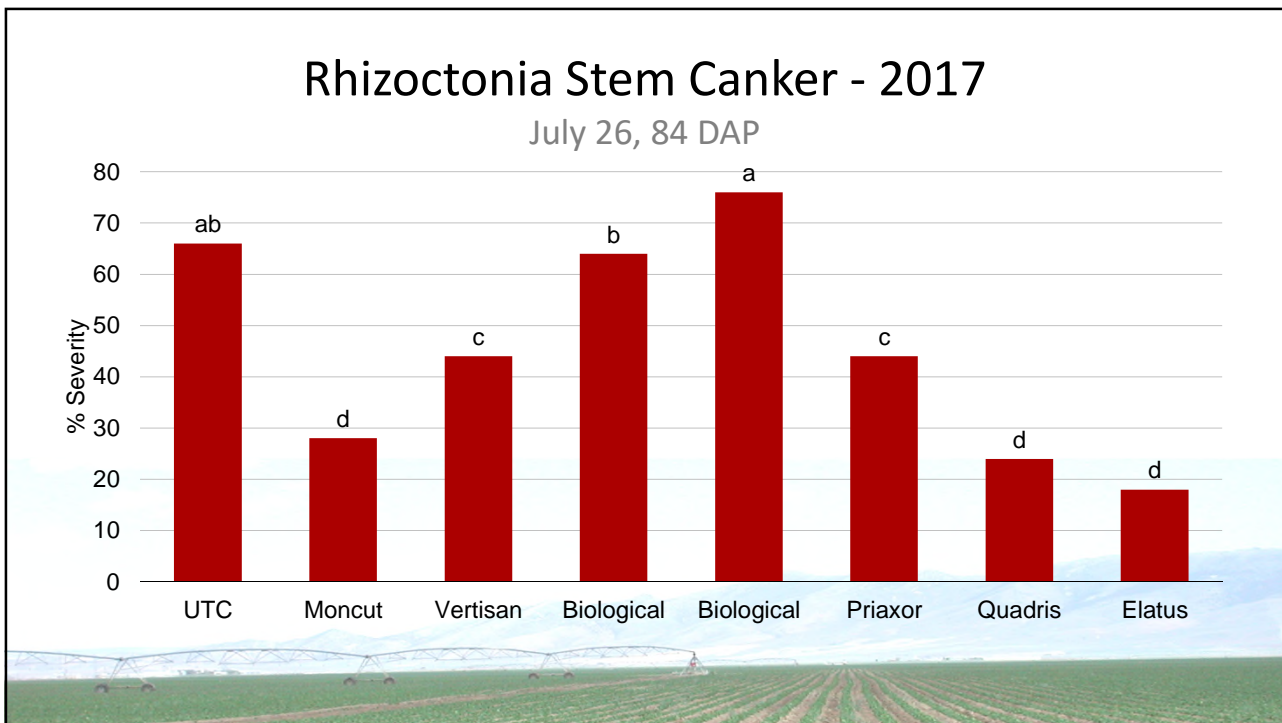
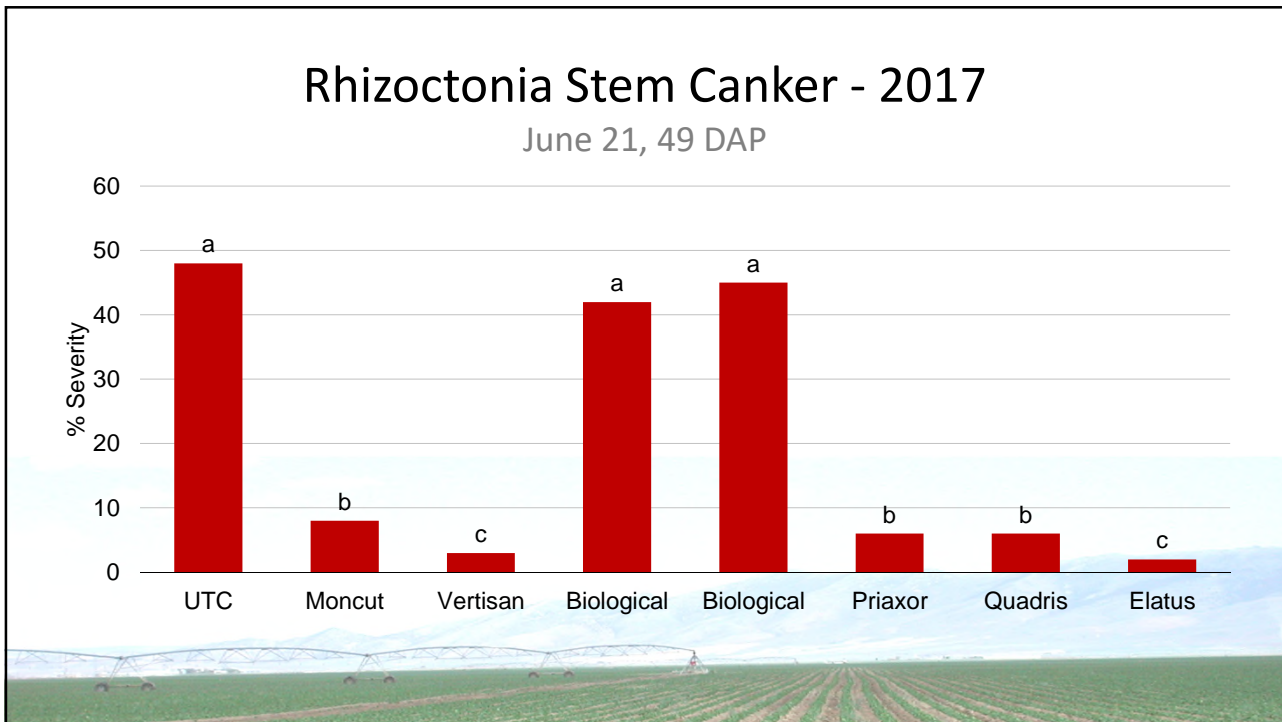
Rhizoctonia Stolon Canker

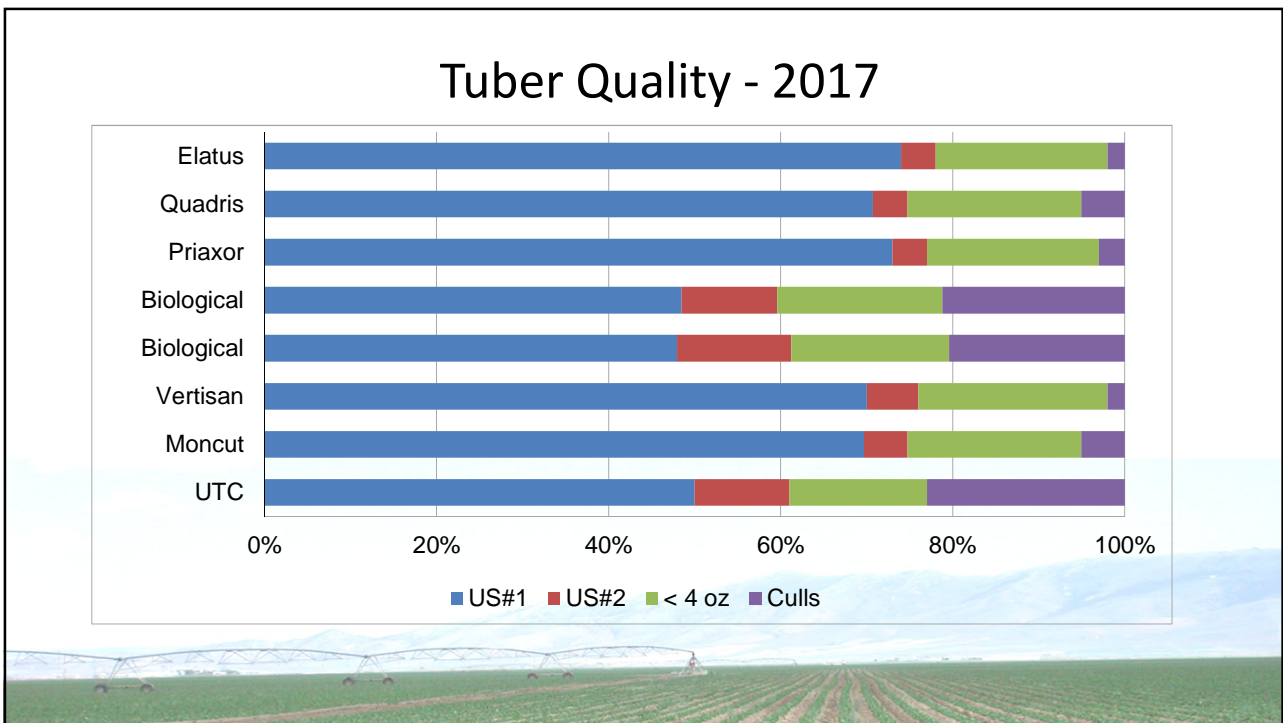
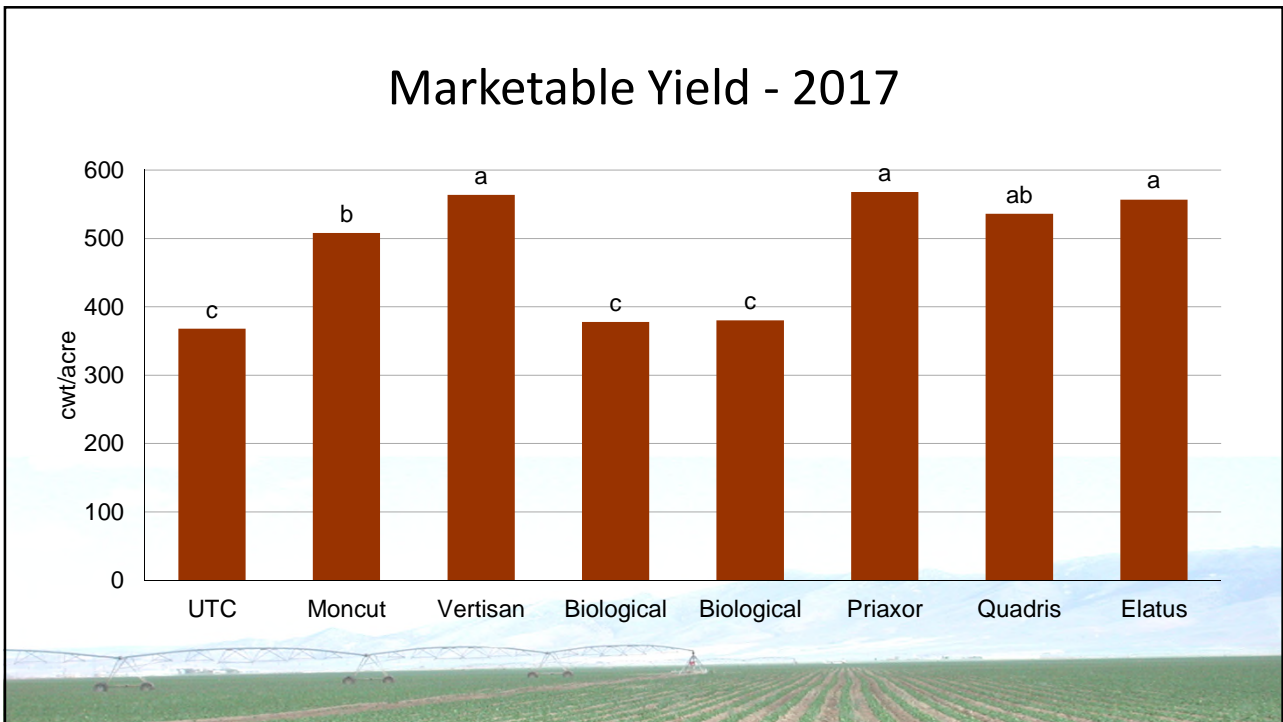


Severe Stem Rhizoctonia

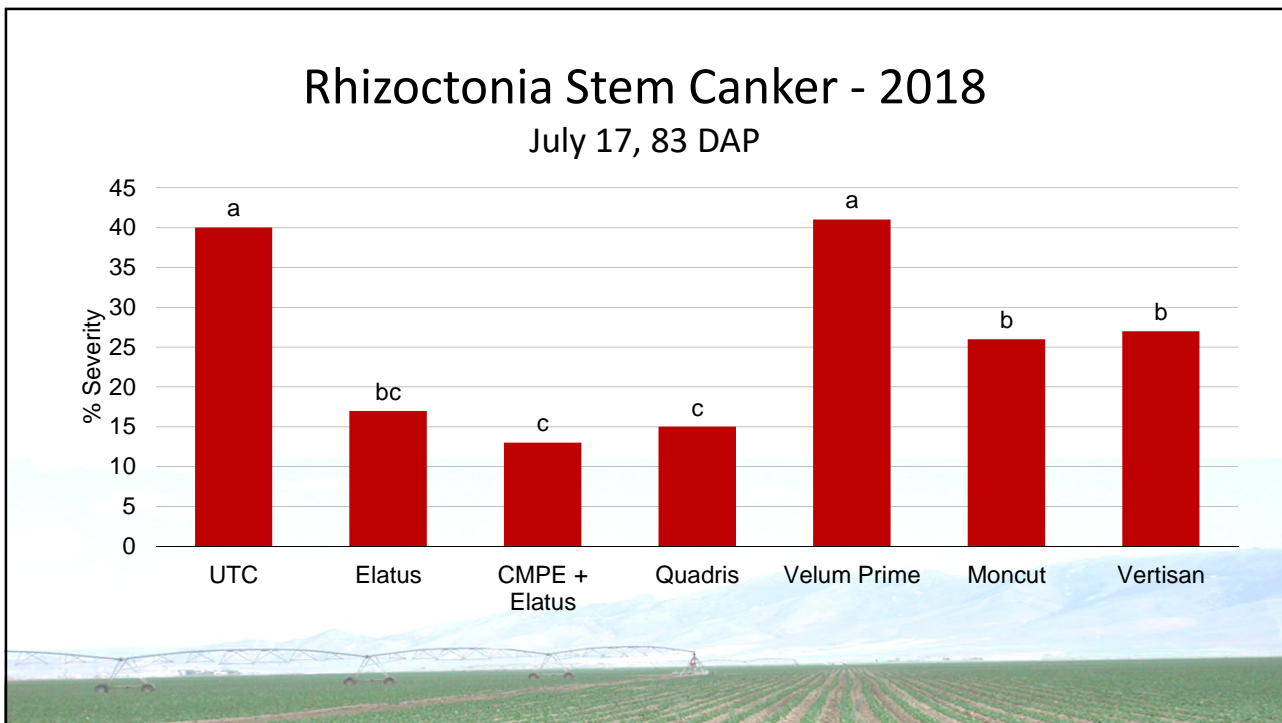
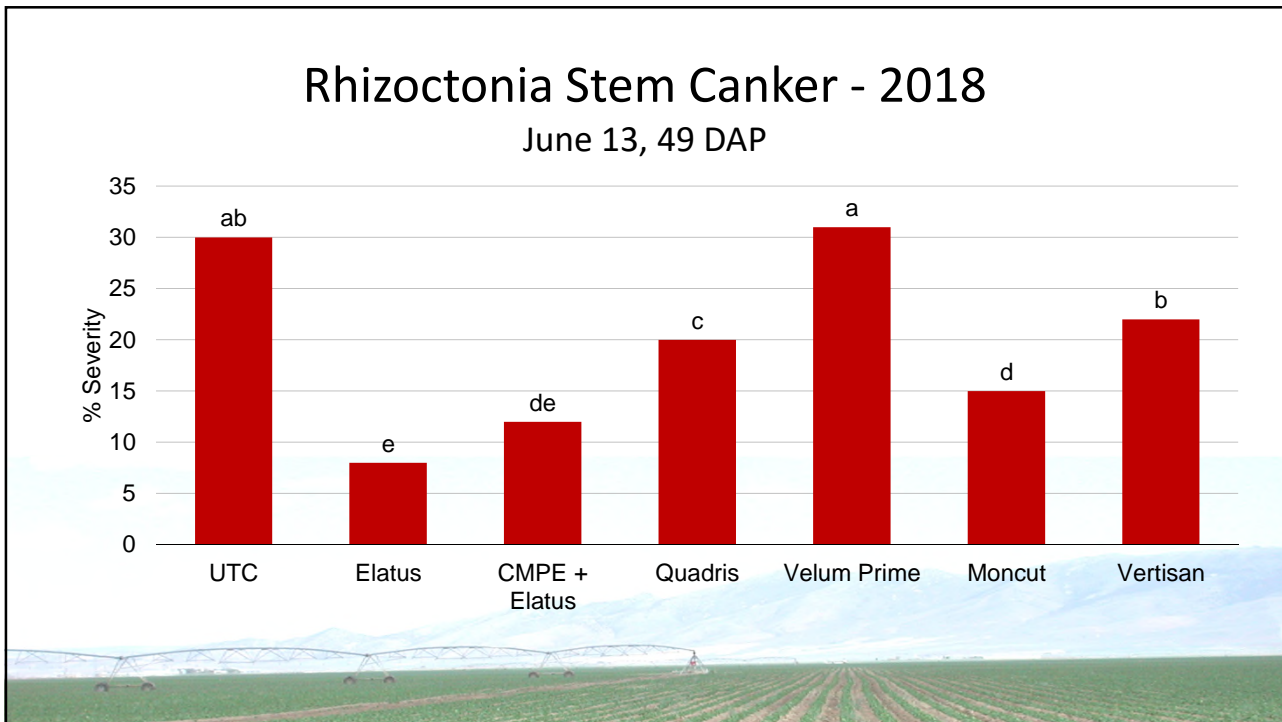




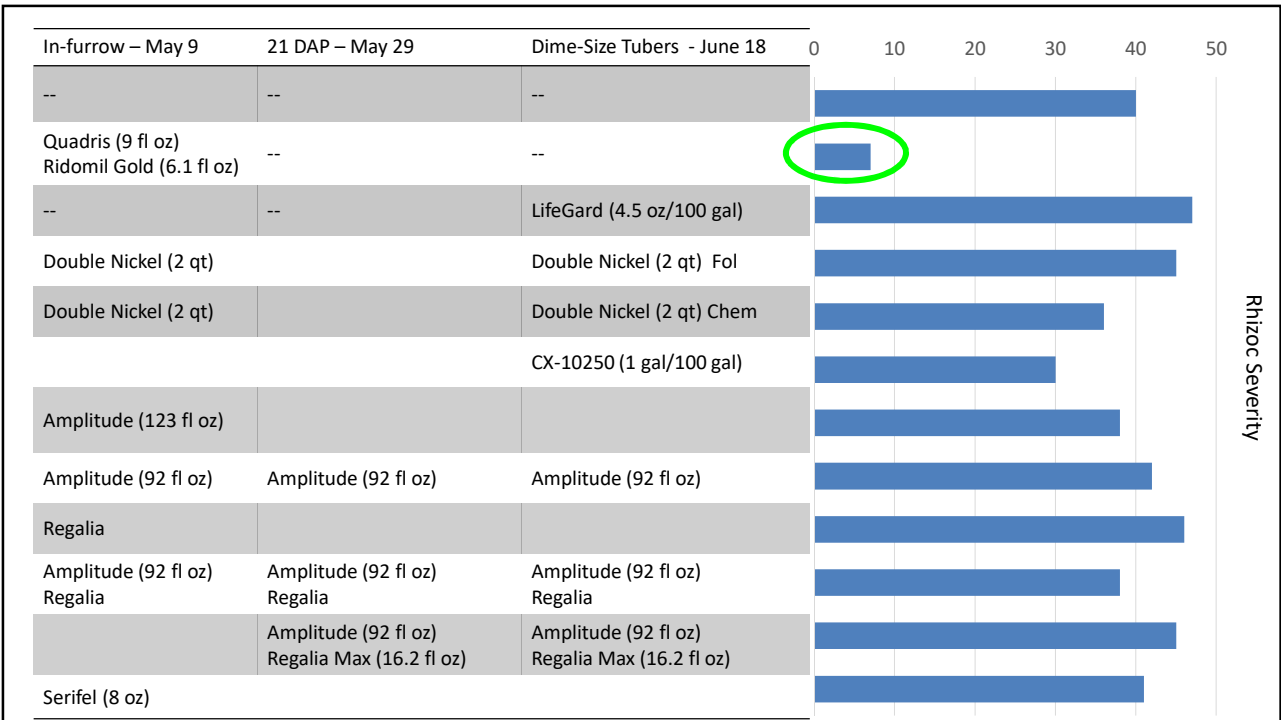
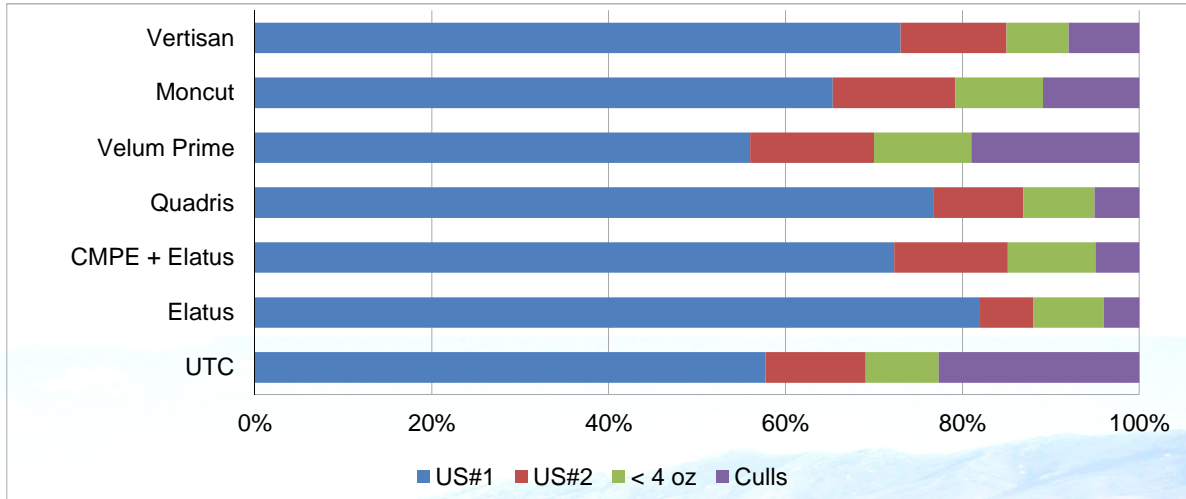


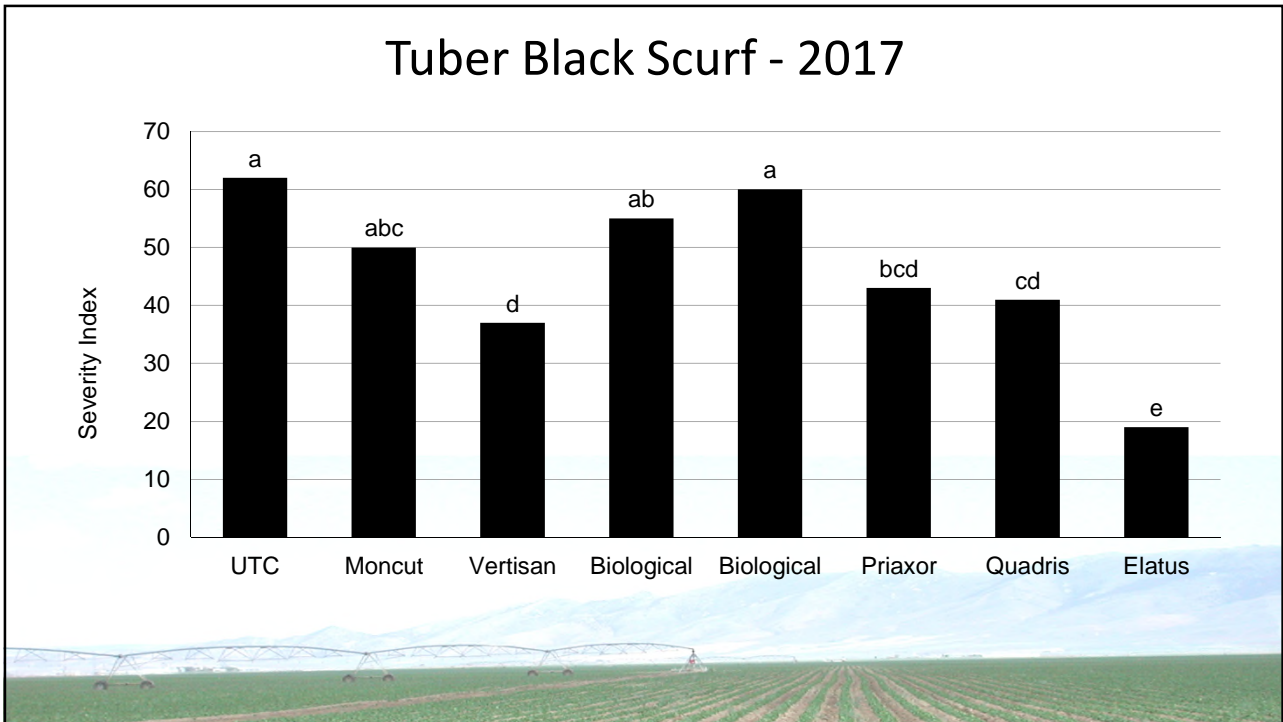
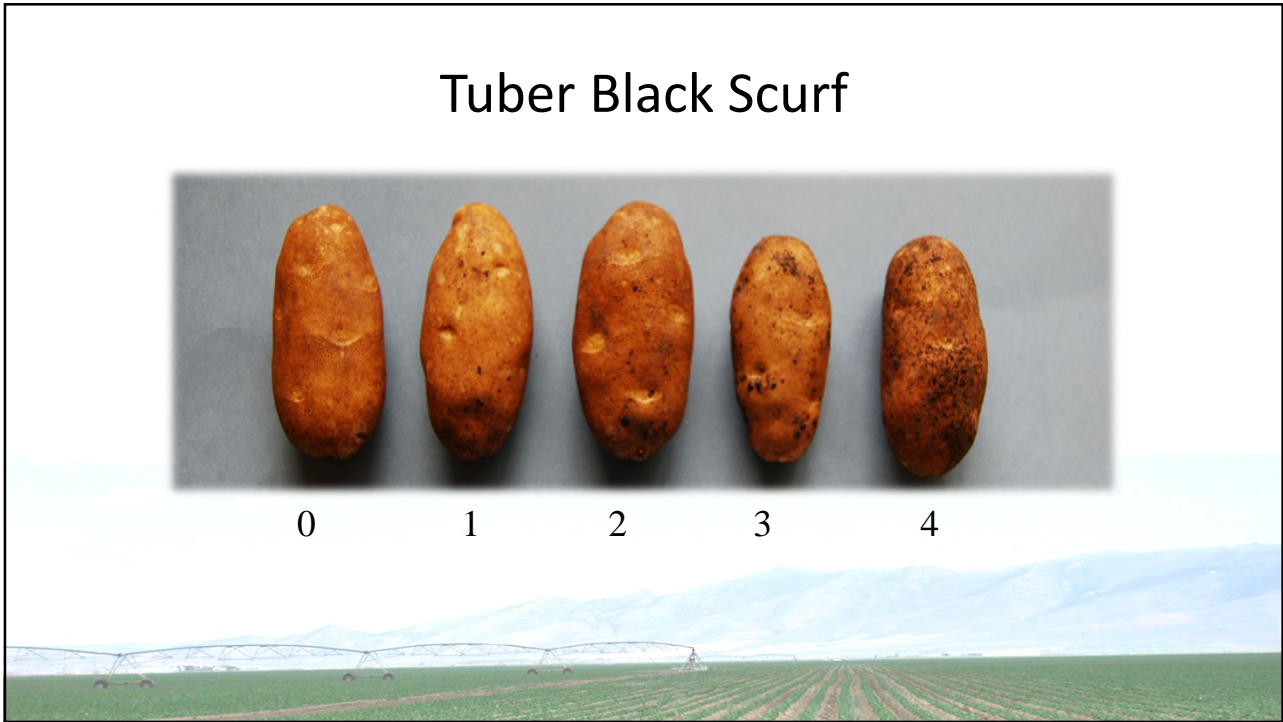


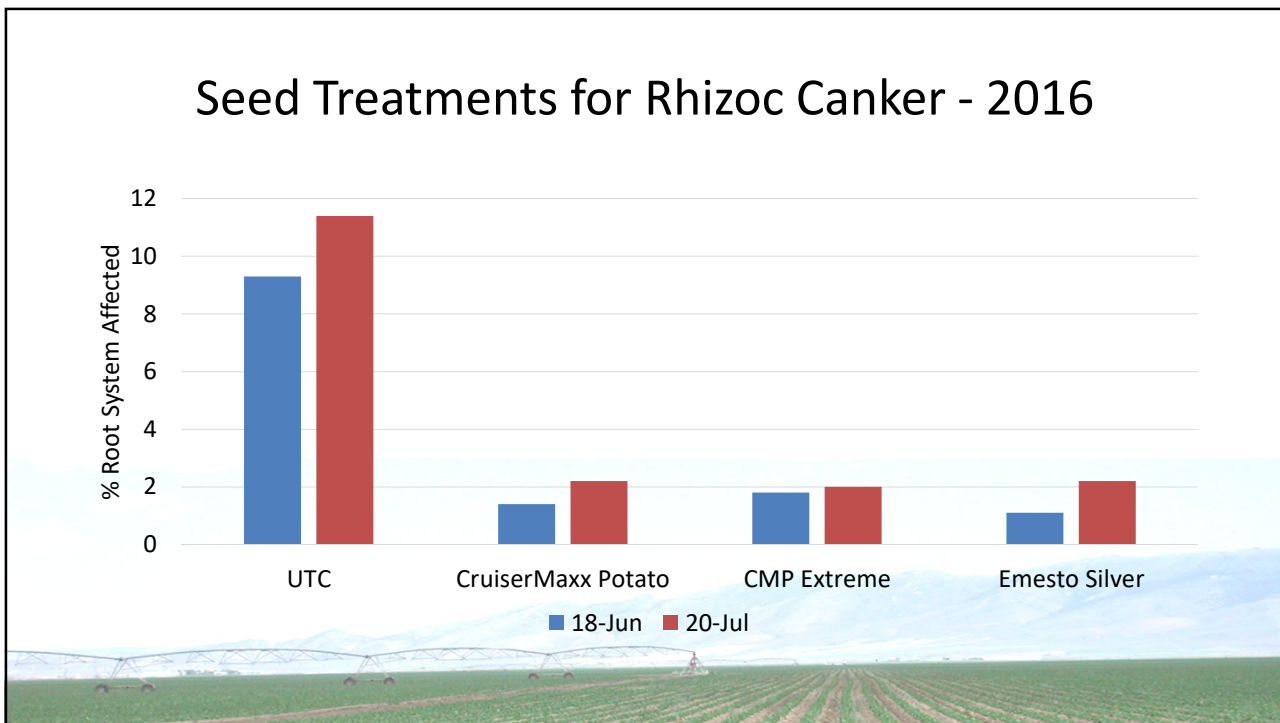
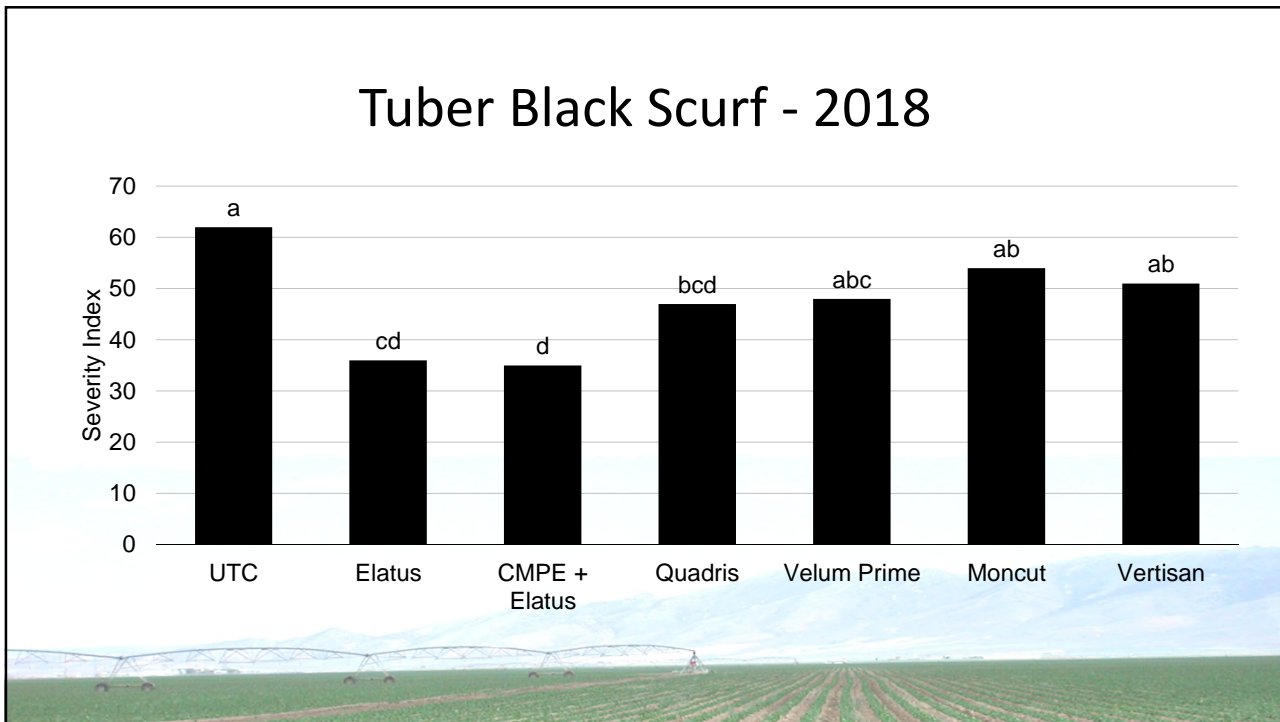




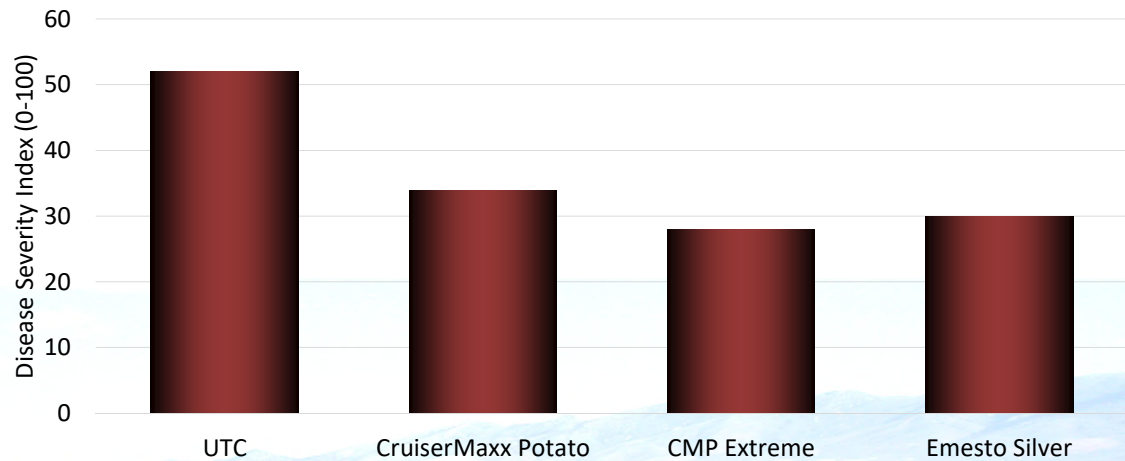
## Tuber Quality - 2018







## Seed Treatments for Black Scurf



## Effective Rhizoc Fungicides

### Seed Treatments

- Fludioxonil (Group 12)
  - Maxim MZ, Maxim 4 FS
  - Spirato
  - CruiserMaxx Potato
- Flutalonil (Group 7)
  - Moncoat MZ
- Fludioxonil + Difenoconazole (12 + 3)
  - CruiserMaxx Potato Extreme
- Penflufen + Prothioconazole (7 + 3)
  - Emesto Silver\*

### In-Furrow Fungicides

- Quadris (Azoxystrobin; 11)
- Evito (Fluoxastrobin; 11)
- Moncut (Flutalonil; 7)
- Vertisan (Penthiopyrad; 7)
- Priaxor (Fluxopyroxad + Pyraclostrobin; 7 + 11)
- Elatus (Benzovindiflupyr + Azoxystrobin; 7 + 11)

## Summary

- Rhizoctonia pressure can vary by year.
- In-furrow best for soil borne.
- Seed treat helps with seed borne.
- May want both in severe cases.
  - Maybe you are concerned about both seed and soil?
- Biologicals have not performed well under our conditions.



Thank You!



Questions?

