Interaction Between *Rhizoctonia solani* Anastomosis Groups (AGs) and Fungicides on Stem Canker and Black Scurf

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Do fungicides act differently against different *R. solani* AGs?

	Anastomosis Group (AG)							
	2-1	3-PT	4 HGII	5	A	K	W	Total
Stem canker	3	36	5	1	0	2	1	48
Stolon canker	0	11	0	0	0	0	0	11
Root lesions	0	2	1	0	0	0	0	3
Black scurf	6	91	2	0	0	0	0	99
Elephant hide	1	10	0	0	3	1	0	15
Total	10	150	8	1	3	3	1	176

From Woodhall et al., 2022, Plant Dis. 106:3127-3132

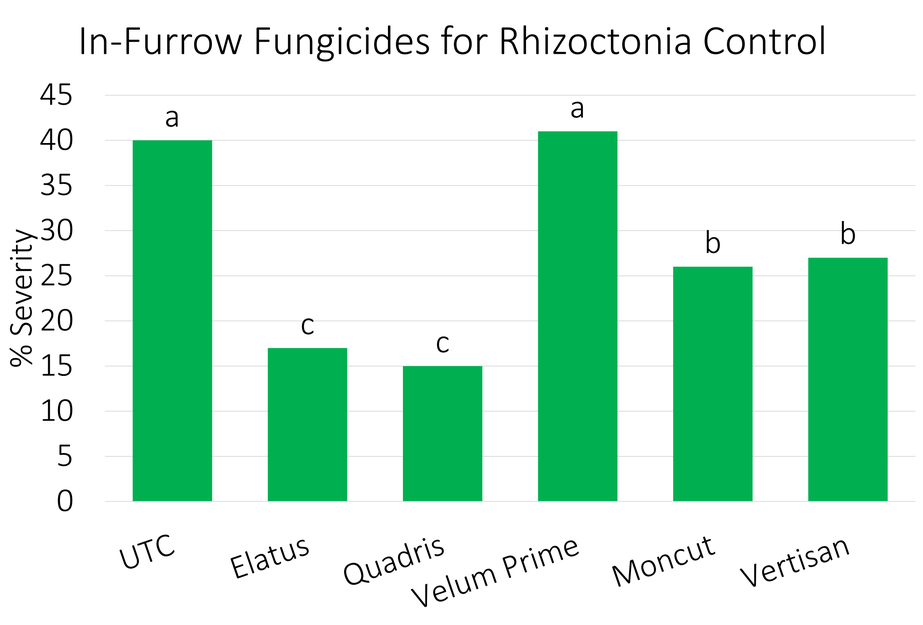
Hypotheses

1. AGs of *R. solani* differ in the type and severity of disease symptoms on potatoes in southern Idaho.

2. Fungicides differ in efficacy for controlling the different AGs.

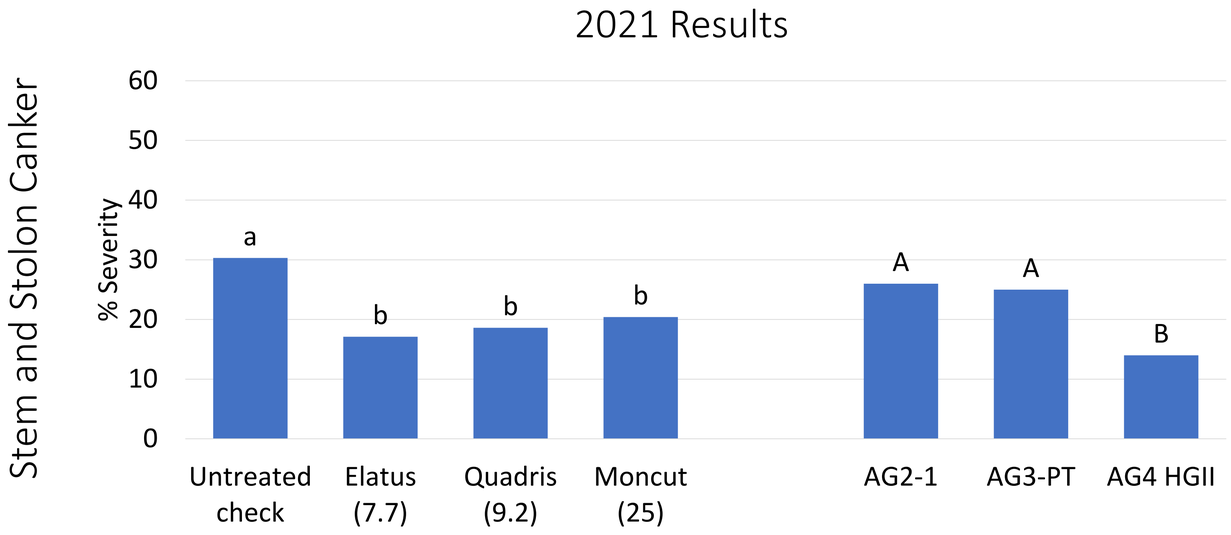
Experimental Design

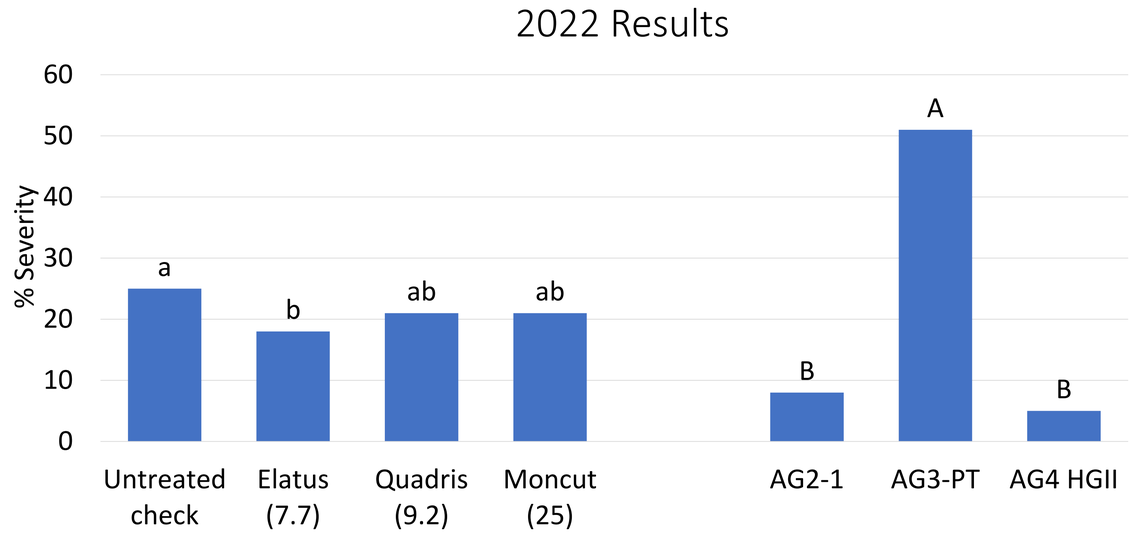
- Split-block design, 4 reps, cv. Russet Burbank
- Main plot = Rhizoctonia AG
  1. AG 2-1
  2. AG 3-PT
  3. AG 4 HGII
- Sub-plot = In-furrow fungicide
  1. Untreated check
  2. Elatus, 7.7 oz/acre (4.6 g/100 row-m)
  3. Quadris, 9 fl oz/acre (6 ml/100 row-m)
  4. Moncut, 25 fl oz/acre

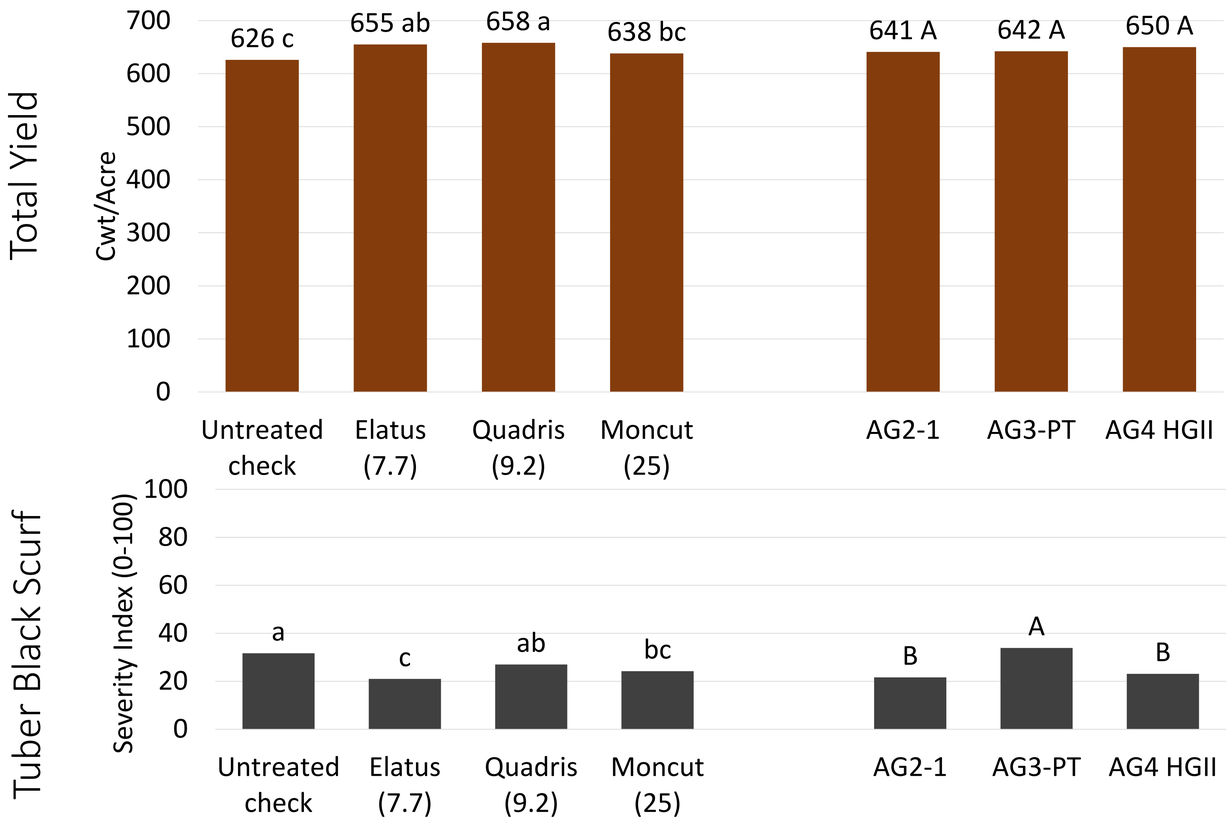


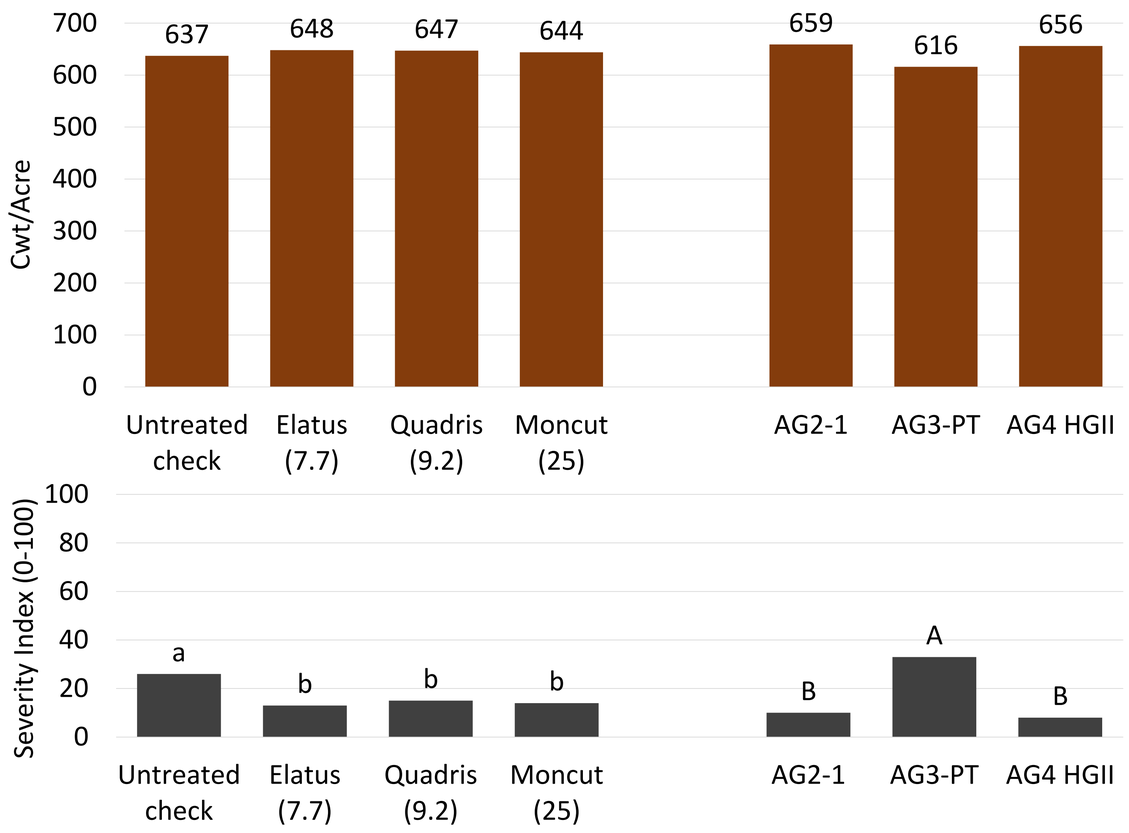
Results and Conclusions

- All fungicides reduced stem and stolon canker in 2021.
- Only Elatus reduced stem canker in 2022.
- Rhizoctonia control resulted in generally higher yields.
- AG did not affect fungicide performance.
- AG4 HGII had lower stem canker severity than AG2-1 and AG3-PT.
- All AGs had similar yield.
- AG3-PT had higher incidence of tuber black scurf.
- Elatus showed the least amount of black scurf.
- **AGs did not respond differently to fungicides tested.**









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