

# Potato Herbicide Update 2022

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EXTENSION

# Integrated weed management

- Prevention – crop and herbicide rotation
- Mechanical – tillage & hilling
- Chemical – fumigation, reliance on PREs, and desiccation



# Typical potato weed management program


- 3 to 5 week window for PREs
- Program could include:
  - Fumigation
  - Tillage / field preparation
  - Planting
  - Hilling / drag-off
  - Herbicide prior to emergence
  - Postemergence herbicide
  - Desiccation




















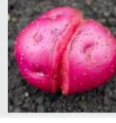








# Potato herbicide research & Extension education

- Tank mixtures
- New chemistries
- Herbicide injury
- Biologicals

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## Herbicide Injury in Potatoes

Amino Acid Synthesis Inhibitors 2, 9					Growth Regulators 4				
Halosulfuron	Imazamox	Imazapyr	Flumetsulam	Glyphosate	Picloram	Dicamba	2, 4-D	Clopyralid	
									
									
Photo System II Inhibitors 5, 6, 7					Long Chain Fatty Acid Inhibitor 15		Pigment Inhibitors 13, 27		Nitrogen Metabolism 10
Bromoxynil	Linuron	Metribuzin	Dimethenamid-P	Metolachlor	Clomazone	Mesotrione	Glufosinate		
									

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# Potato herbicides

- Many PREs
- Few POSTs
- Start with a strong PRE program.
- Save metribuzin and rimsulfuron for POST.



# Chemical weed control









June 15, 2021  
Verndale, MN herbicide trial













# New chemistries



- FMC
- Belchim
- Others

# Herbicide injury

- Potatoes = \$\$\$
- Seed potatoes = \$\$\$\$





# What about biologicals?

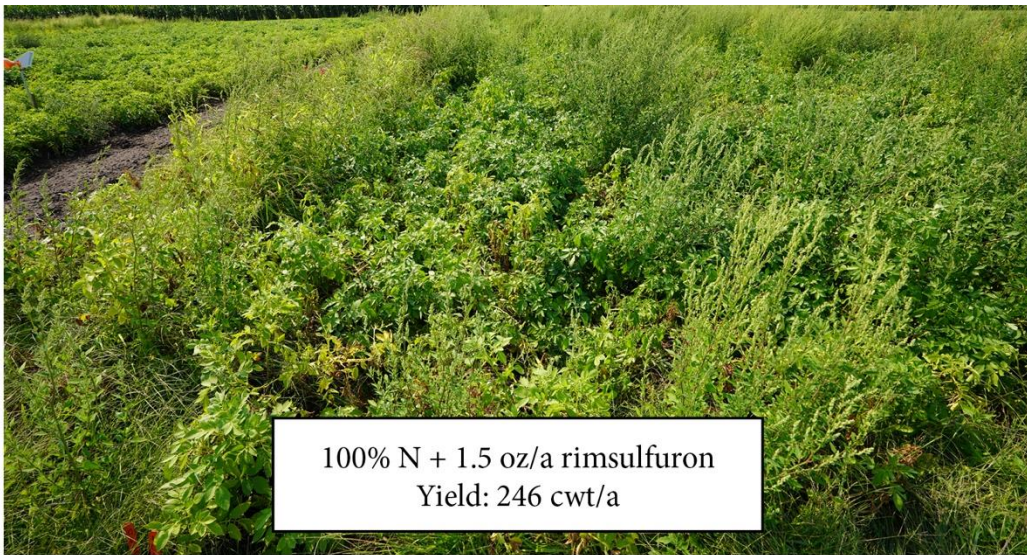
## Biologicals

- Amino acids
- Microbials
- Humic acid
- Fulvic acid
- Seaweed extract
- Many more!

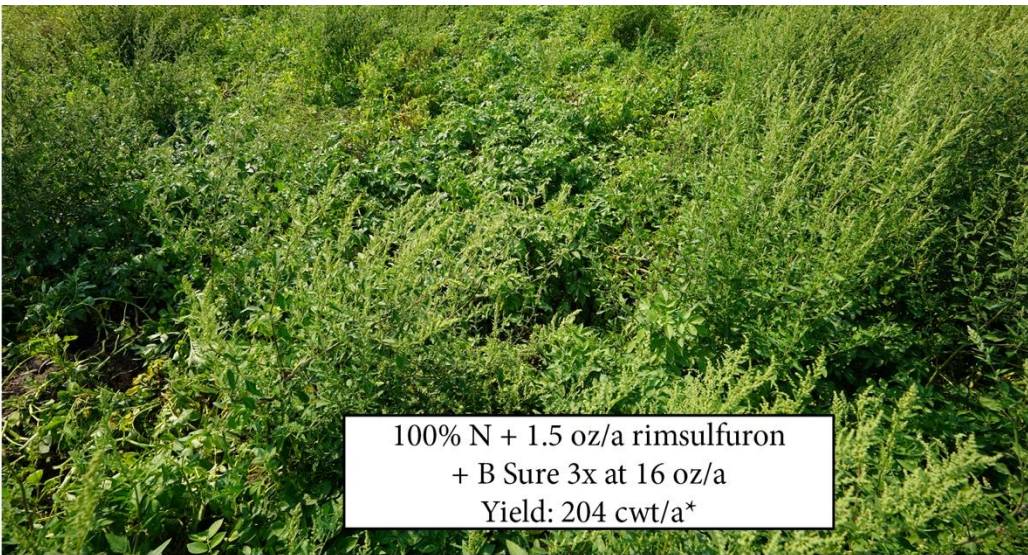
## Challenges

- Confusion
- Unreliable data
- Inconsistent results
- Vague label language
- Incompatibility and poor production quality (shelf-life)
- Approach too broad

(2021 CA grower survey)



100% N + 1.5 oz/a rimsulfuron  
Yield: 246 cwt/a



100% N + 1.5 oz/a rimsulfuron  
+ B Sure 3x at 16 oz/a  
Yield: 204 cwt/a\*



75% N + 1.5 oz/a rimsulfuron  
Yield: 285 cwt/a



100% N + 1.5 oz/a rimsulfuron  
+ B Sure 3x at 16 oz/a  
Yield: 255 cwt/a

# Questions?

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