

Kochia in northeast Montana: a survey of herbicide resistance in the most difficult populations



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Figure 1. Proportion of Kochia resistant to different herbicides

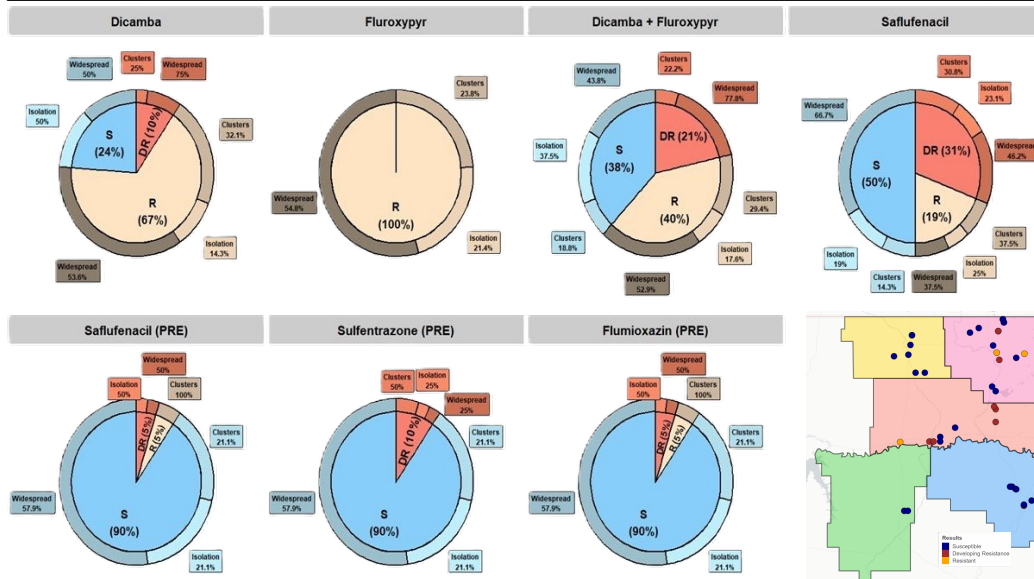
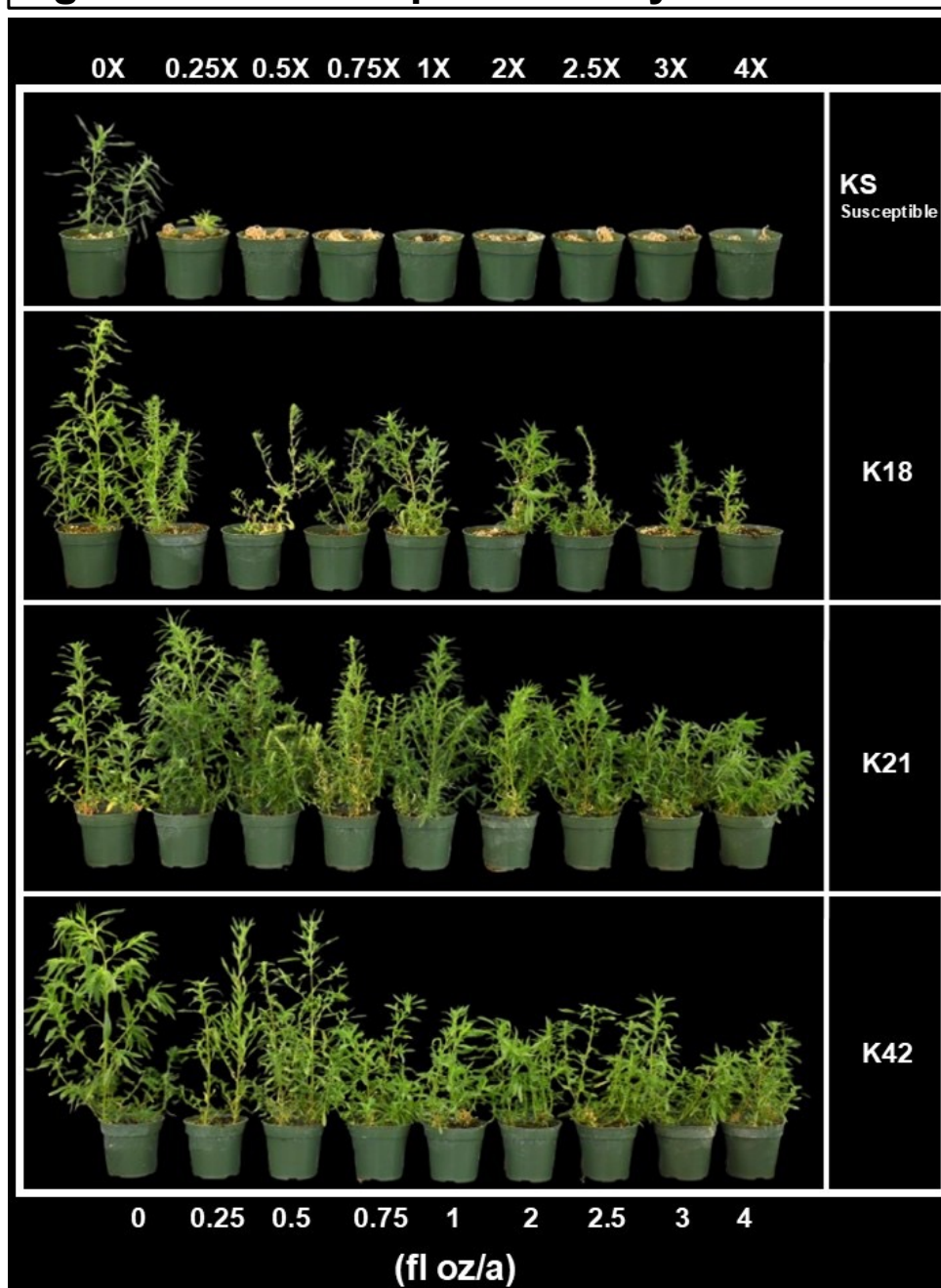


Table 1. Herbicide Resistant Status

Pop	Post					Pre		
	Clarity 16 fl oz/a	Clarity 32 fl oz/a	Starane ultra 0.4 pt/a	Sharpen 2 fl oz/a	Clarity (16 fl oz/a) + Fluroxypyr (0.4 pt/a)	Spartan 4F 4 fl oz/a	Valor EZ 2 fl oz/a	Sharpen 2 fl oz/a
K18	R	R	R	R	R	S	S	R
K21	R	R	R	R	R	S	R	R
K42	R	S	R	R	S	R	R	S

Figure 2. Dose-Response Study



Need to develop alternative integrated weed management strategies

Cheatgrass resistance to glyphosate documented in Montana

Tim Seipel, Damian Stoy

Complaints about cheatgrass (downy brome) control led us to test populations from central and south-central Montana in the fall of 2024. We screened populations in the greenhouse, and then spray

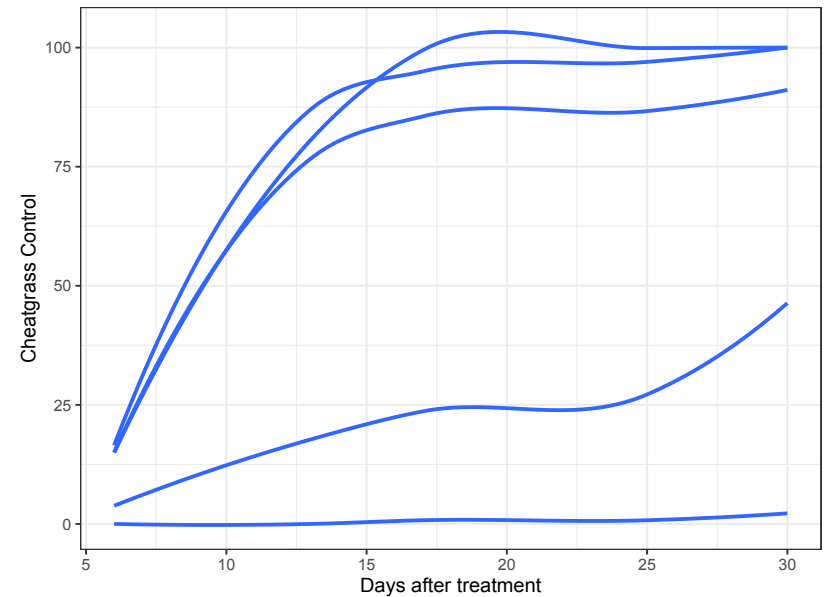


Figure 1. Herbicide control after application

Cheatgrass resistance to glyphosate was confirmed in Montana

In two populations we documented cheatgrass plants that were resistant to up to 32 oz of glyphosate (Powermax)

In some populations individuals resistant to 24 oz were killed by 32 oz

Unclear how widespread resistance is in cheatgrass, or to which herbicide modes of action

Other resistance has been documented (group 2 ALS)

Interested in having cheatgrass tested, please contact us.

Time to think about changing up management, be watchful.

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