



A Turning Point in Dry Bean Weed Control

Joe Ikley

Extension Weed Specialist

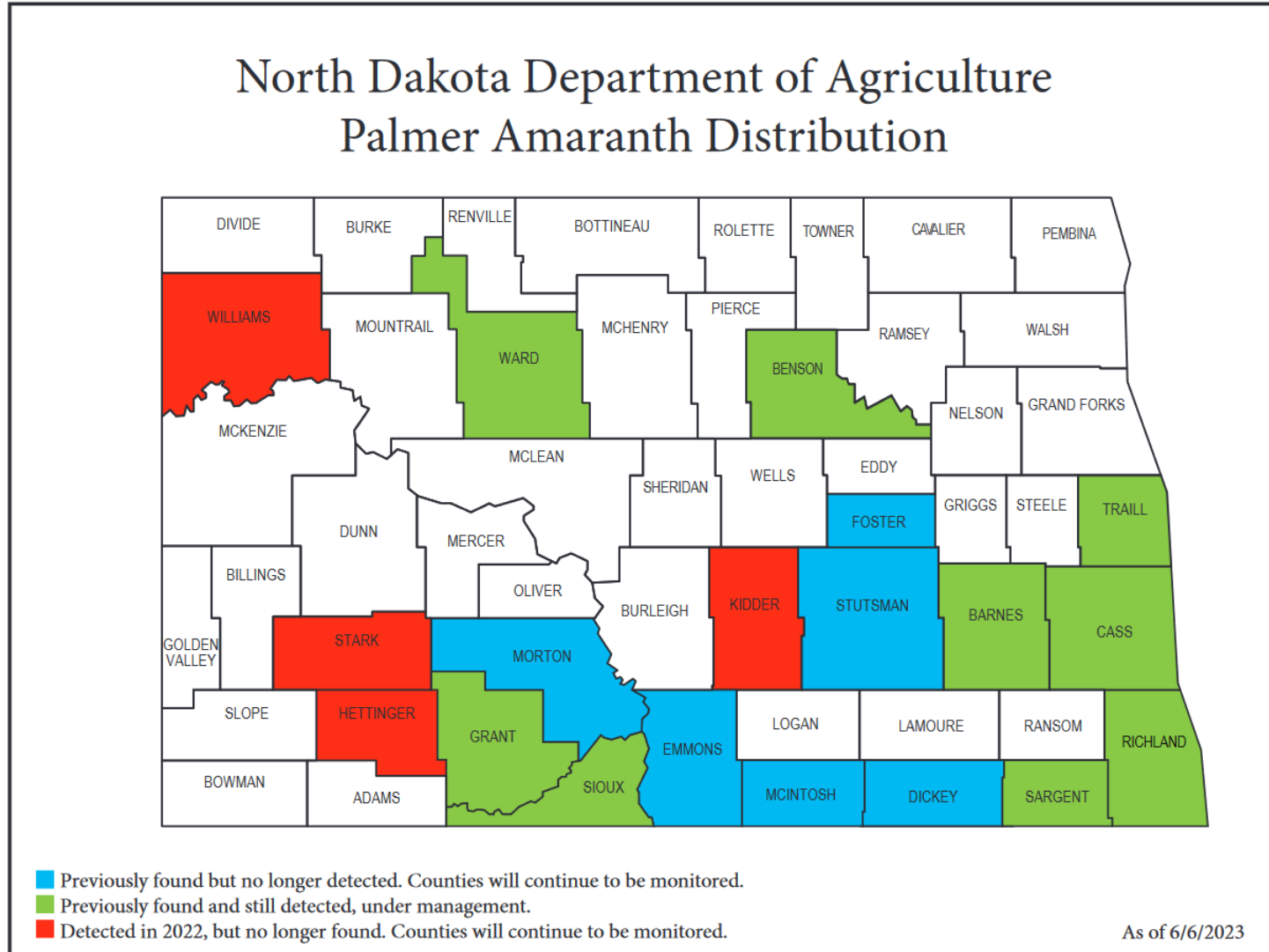
2/12/2025

Top 5 HR Weeds in ND



➤ OLI – Palmer amaranth

Palmer amaranth – No New Cases in 2023 or 2024



Top 5 HR Weeds in ND

- OLI – Palmer amaranth
- 5 – Common ragweed





Top 5 HR Weeds in ND

- OLI – Palmer amaranth
- 5 – Common ragweed
- 4 – wild oats

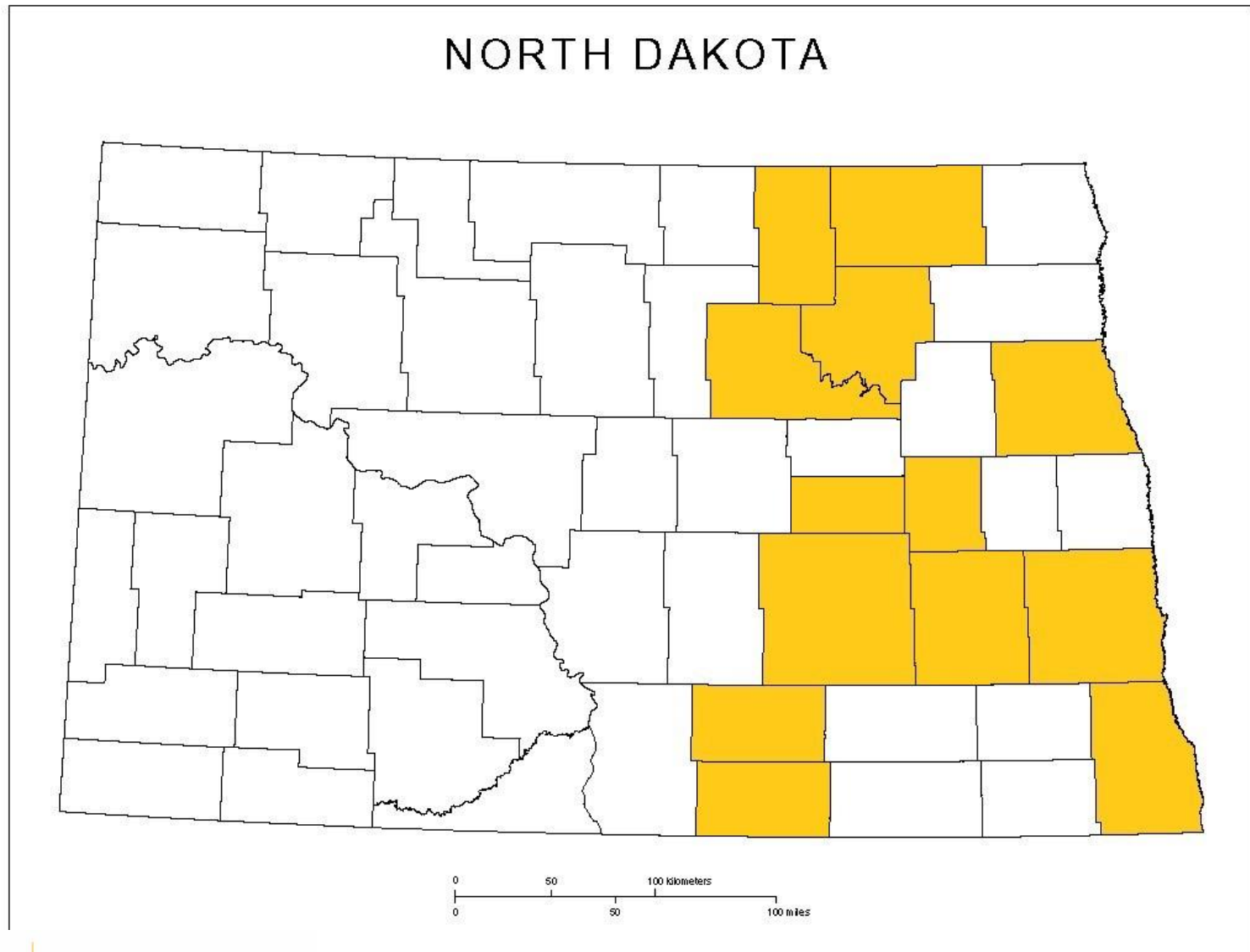
Wild Oat Resistance Testing (% Resistant)

Herbicide	Group #	2016-2020	2021	2022	2023
		N=208	N=34	N=48	N=48
Puma	1	75	88	92	85
Axial XL	1	39	35	73	33
Everest	2	71	85	96	78
GoldSky	2	71	53	94	55
Varro	2	85	91	100	90
Beyond Xtra	2	52	24	88	43
Assure II	1	72	82	88	83
Select	1	9	18	33	5

Top 5 HR Weeds in ND

- OLI – Palmer amaranth
- 5 – Common ragweed
- 4 – wild oats
- 3 – waterhemp

Group 14-Resistant Waterhemp



Waterhemp Control in Dry Beans

(assuming it is glyphosate and ALS resistant AND PPO resistant)

- Start clean and use residuals at planting
 - Sulfentrazone (Spartan) – Group 14
 - Metolachlor (Dual), dimethenamid (Outlook) – Group 15
 - Anything yellow – Group 3
- **TIMELY** post treatments + another layer of residual
 - ~~Reflex~~ + dimethenamid (Outlook)

Top 5 HR Weeds in ND

- OLI – Palmer amaranth
- 5 – Common ragweed
- 4 – wild oats
- 3 – waterhemp
- 2 – green foxtail

Green foxtail resistance testing (% resistant)

Herbicide	Group	2015-2020	2021	2022
Puma	1	65	86	72
Discover	1	67	71	72
Axial XL	1	47	81	61
Everest	2	13	24	78
GoldSky	2	16	24	83
Varro	2	17	19	56
Raptor	2	0	5	22
Assure II	1	45	76	50
Select	1	3	10	17

*Samples not randomly collected

n=118

n=21

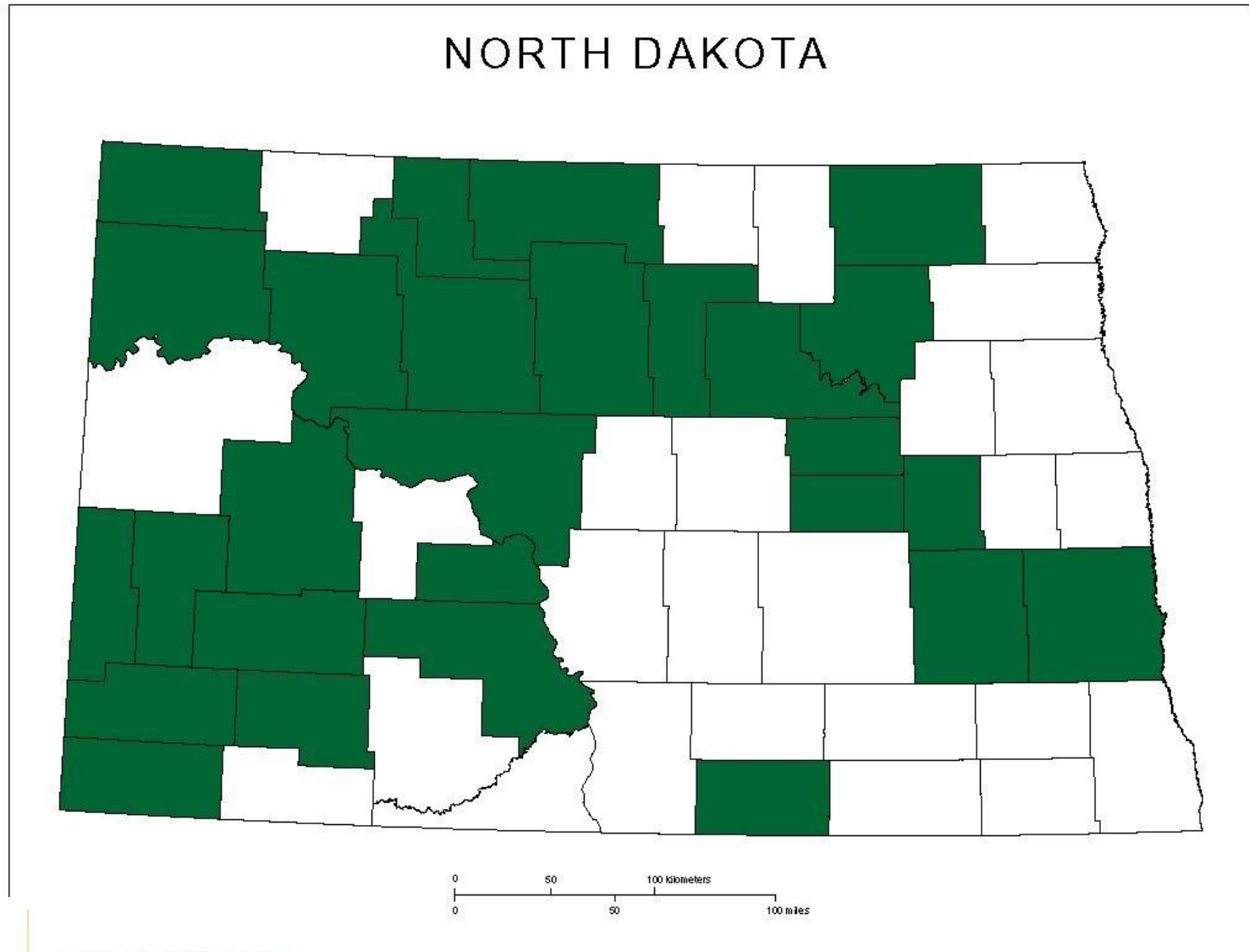
n=18

→ 10 of 18 resistant to both Puma and Everest

Top 5 HR Weeds in ND

- OLI – Palmer amaranth
- 5 – Common ragweed
- 4 – wild oats
- 3 – waterhemp
- 2 – green foxtail
- 1 – kochia

Group 14-R Kochia



Kochia Control in Dry Beans

(assuming it is glyphosate and ALS resistant AND PPO resistant)

- Start clean and use residuals at planting
 - Sulfentrazone (Spartan) – Group 14
 - Ethalfluralin (Sonalan) PPI – Group 3
 - Pendimethalin (Prowl), trifluralin (Treflan) – Group 3
- **TIMELY** post treatments (include oil and AMS)
 - Reflex
 - Must be ~2" tall
 - Basagran (1 pt fb 1 pt)
 - MUST be ~1" tall



PHASE 1 PHASE 2 PHASE 3

**SKIP
THE PRE**

?

Profit



WHAT'S PHASE 2??



War Against Weeds Podcast



Contact

➤ Joe Ikley

➤ 701 231-8157

➤ Joseph.Ikley@ndsu.edu

 @NDSUWeeds

