



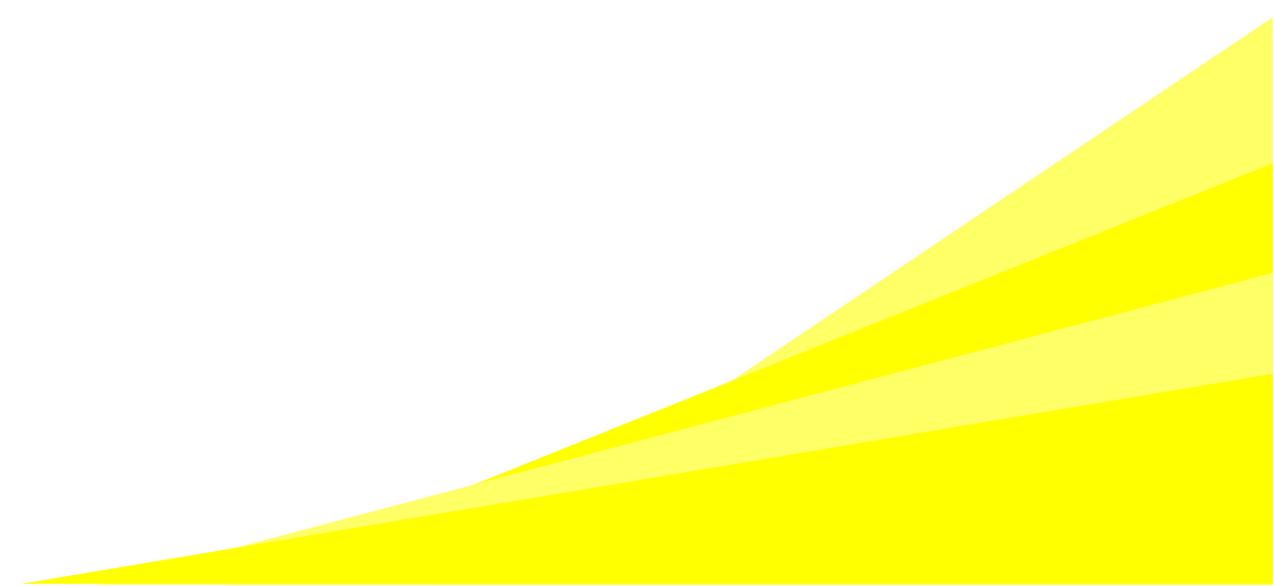
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Trial results

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Weed control in maize 2022



2022 herbicide trials - Cheshire

36 mm of rainfall was recorded for the three weeks after pre-emergence treatments were applied.

No clear vigour differences were detected between both pre & post emergence treatments except the controls were consistently slightly less vigorous.

Main weeds present:

- *Grasses (Ryegrass)*
- *Orache*
- *Mayweed*
- *Fumitory*
- *Cranesbill*
- *Thistle*
- *Deadnettle*



2022 Weed Control Results



Chemical	% weed control. 58 DAT	Timing
Wing-P (Pendimethalin + Dimethenamid P) @ 4L/ha	84	Pre-emergence
Pendimethalin @ 3L/ha	92	
Dual Gold (S-metolachlor) @ 1.4L/ha	63	
SIP31697 @ 1L/ha	69	
SIP31697 + Dual Gold @ 1L/ha + 1.25L/ha	85	
SIP31697 + Most Micro(pendimethalin)@ 0.8L/ha + 3L/ha	72	

2021 results:

Chemical	% weed control	Timing
Wing-P @ 4L/ha	85	Pre-emergence
Pendimethalin @ 3L/ha	37	
Dual Gold @ 1.4L/ha	59	
SIP31697 + Most Micro @ 1L/ha + 3.6L/	83	

2022 Weed Control Results



Chemical	% weed control. 21 DAT	Timing
Callisto @ 0.75L/ha	84	Post-Emergence
MaisTer @ 150g/ha + Mero @ 0.1L/ha	65- Cranesbill	
Nicosulfuron @ 0.5L/ha + Callisto @ 0.75L/ha	88	
SIP31697 @ 0.8L/ha	74	
SIP31697 @ 0.8L/ha + Accent (nicosulfuron) @ 40g/ha	68 - Grass	

Sequential maize herbicide trial

Rationale – can rates be reduced when used in a sequence with other herbicides, and still provide a robust weed control strategy that produces high yields.



Main weeds present:

- *Fat hen*
- *Cleavers*
- *Knotweed*
- *Orache*
- *Bindweed*
- *Groundsel*

Treatment No.	Treatment	Rate	Rate Unit	Application Timing
1	Untreated			
2	Wing P	4	l/ha	Pre-em
	Meister	150	g/ha	Post-em
	Mero	0.1	l/ha	Post-em
3	Pendimethalin	3	l/ha	Pre-em
	Diva	0.75	l/ha	Post-em
4	Pendimethalin	3	l/ha	Pre-em
	Callisto	0.75	l/ha	Post-em
	Milagro	0.5	l/ha	Post-em
5	Wing P	3	l/ha	Pre-em
	Callisto	0.75	l/ha	Post-em
	Milagro	0.5	l/ha	Post-em
6	Most Micro	3.6	l/ha	Pre-em
	SIP31697	0.8	l/ha	Post-em
7	Most Micro	3.6	l/ha	Pre-em
	SIP31697	0.8	l/ha	Post-em
	Accent	40	g/ha	Post-em

Sequential maize herbicide trial results



Treatment No.	Treatment Name	Rate	Rate Unit	Application Timing	Plant Count	Yield (t/ha DM)
1	Untreated				25	13.6
	Check				100%	100%
2	Wing P	4	l/ha	Pre-em	33	15.5
	Meister	150	g/ha	Post-em	132%	114%
	Mero	0.1	l/ha	Post-em		
3	Pendimethalin	3	l/ha	Pre-em	31	17.4
	Diva	0.75	l/ha	Post-em	124%	128%
4	Pendimethalin	3	l/ha	Pre-em	29	21.7
	Callisto	0.75	l/ha	Post-em	128%	159%
	Milagro	0.5	l/ha	Post-em		
5	Wing P	3	l/ha	Pre-em	27%	15.3
	Callisto	0.75	l/ha	Post-em	121%	113%
	Milagro	0.5	l/ha	Post-em		
6	Most Micro	3.6	l/ha	Pre-em	34	20.4
	SIP31697	0.8	l/ha	Post-em	139%	150%
7	Most Micro	3.6	l/ha	Pre-em	31	22.1
	SIP31697	0.8	l/ha	Post-em	126%	162%
	Accent	40	g/ha	Post-em		
LSD P=0.05				8	5.5	
SD				4.5	3	



27%

162%

Growing maize with reduced herbicides



Rationale – With the future focusing on promoting sustainable crop growing, can farmers use fewer active ingredients per hectare growing maize by switching to hoeing and/or band spraying.

Trial	Pre-em	Post-em 1 -2 leaf stage	Post-em 2 - 6 leaf stage	Post-em 3 - 10 leaf stage
1	Untreated			
2		Hoeing		
3		Hoe + Band spray Nico + Callisto		
4	Wing P 4l/ha	Hoeing		
5	Wing P 4l/ha	Hoe + Band spray Nico + Callisto		
6	Wing P 4l/ha	Hoeing	Hoe + Band spray Nico + Callisto	
7	Wing P 4l/ha	Hoeing	Hoeing	
8		Hoeing	Hoeing	
9		Hoeing	Hoeing	Hoeing
10	Wing P 4l/ha	0.5l/ha Nicosulfuron + 0.75l/ha Callisto		
11	Harrowing	Hoeing	Hoeing	Hoeing



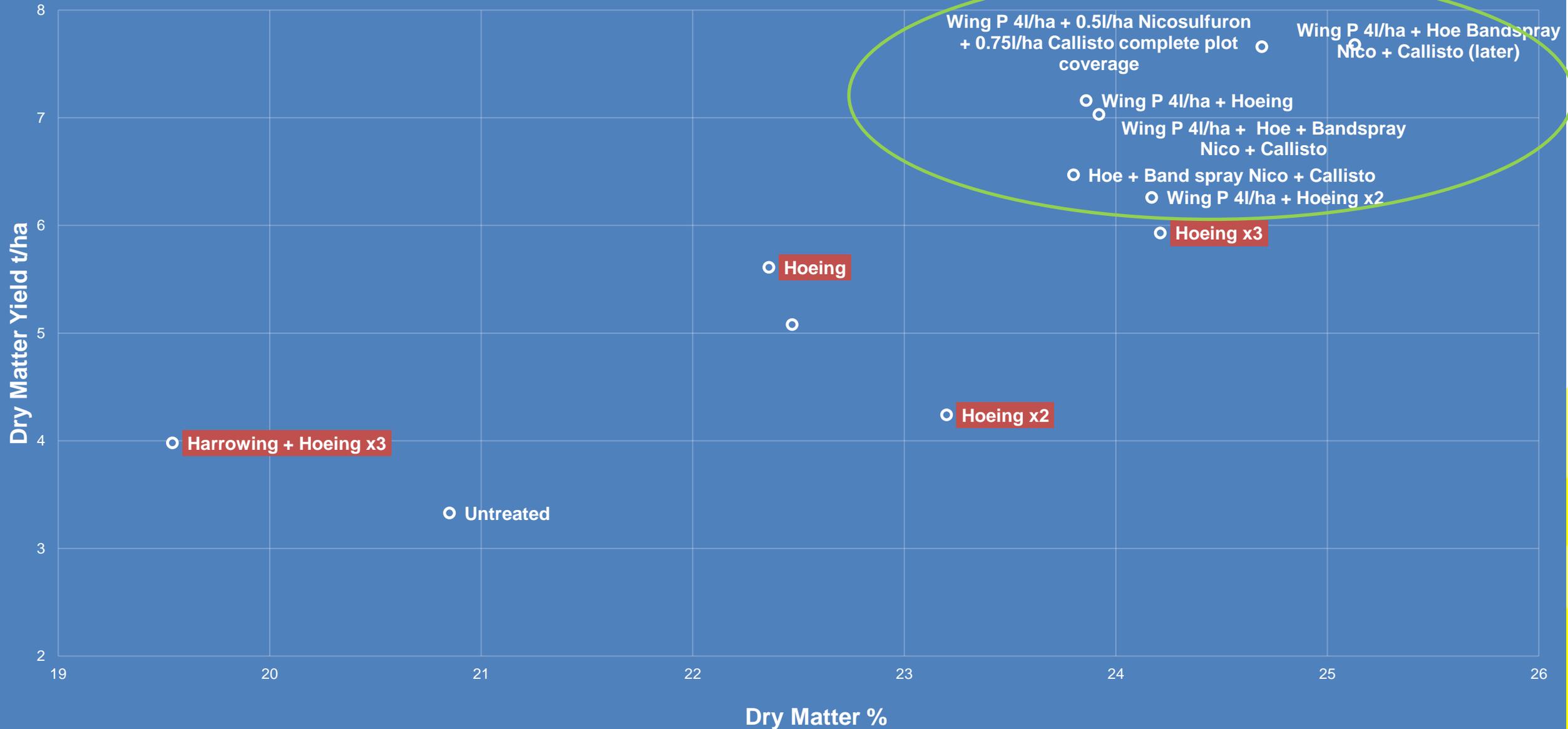
Main weeds present:

- *Cranesbill*
- *Nettle*
- *Fat hen*
- *Nightshade*
- *Grass*

5 X 5 rule:

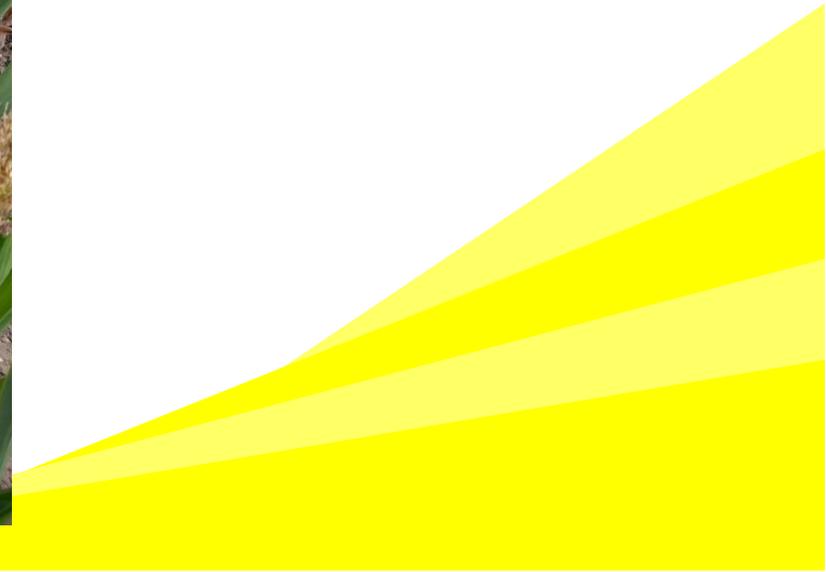
1. 5 cm away from maize row
2. 5 cm deep
3. 5 cm overlap between tines
4. 5 cm soil to throw into row
5. 5 hrs. of dry weather to desiccate weeds

Growing maize with reduced herbicides results





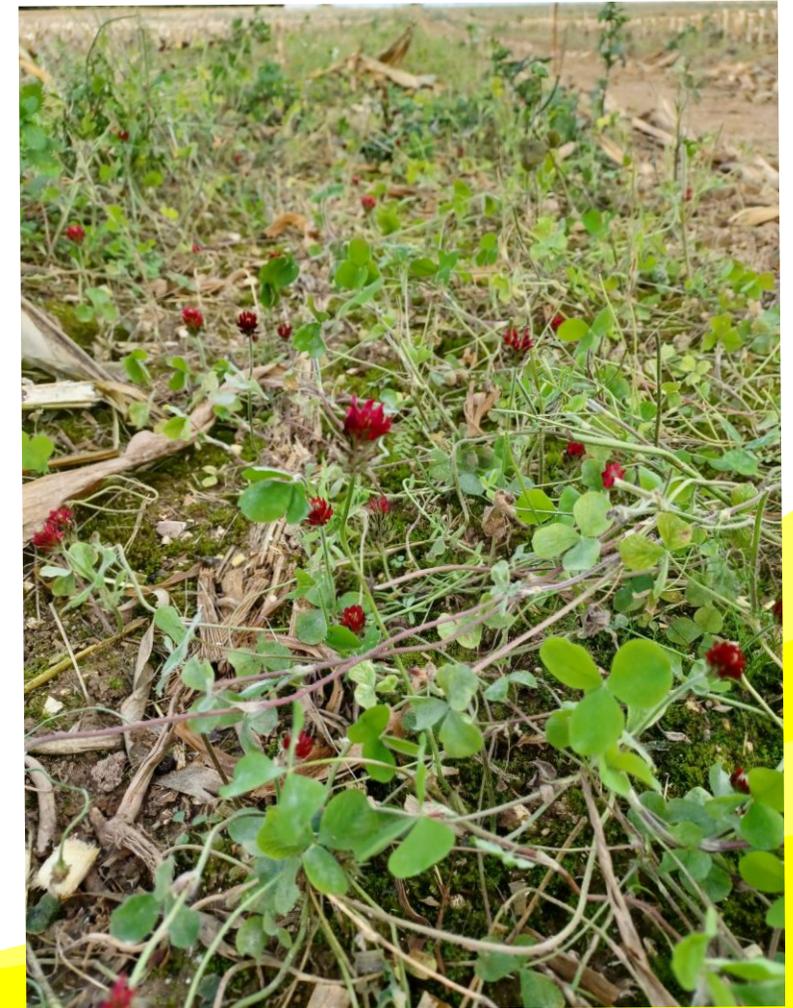
Unders al.....



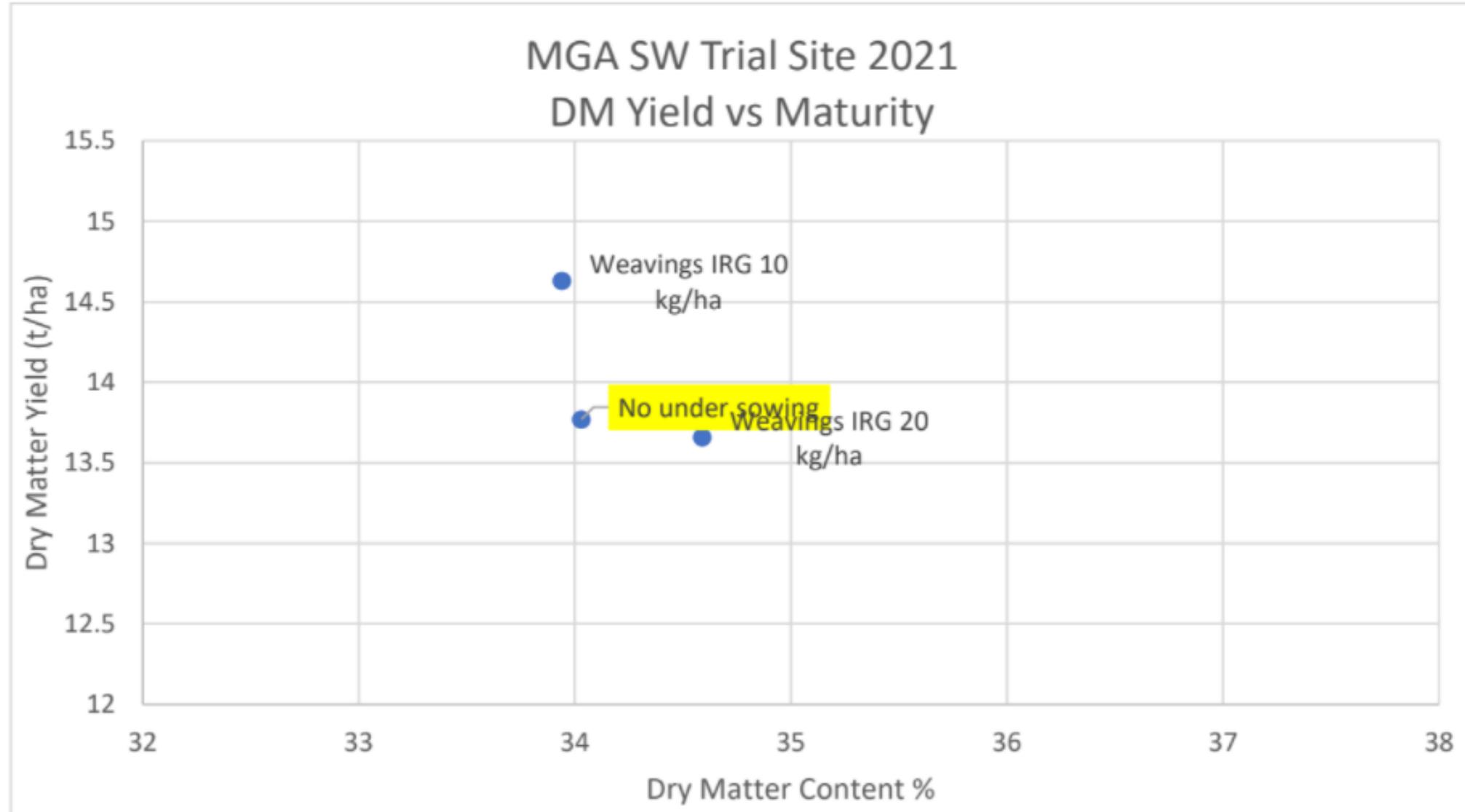
Undersowing without grass trial 2021



Rationale – Can farmers who are concerned with wire worm still undersow maize without using a grass species.



Yield impact from undersowing at 4- 6 leaf stage







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Thank you for your time