

Weed Management Trials in Specialty Crops

High –Value Crops Project

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Potato Weed Control Trial

- Conducted field trial comparing metribuzin + metolachlor or metribuzin + pendimethalin premixes to Boundary or metribuzin + rimsulfuron.
 - Poor pigweed control by metribuzin + rimsulfuron.
 - Lowest market yield by metribuzin + rimsulfuron (approx. 50 cwt/A) primarily from fewest tubers in the 6-12 oz. category.

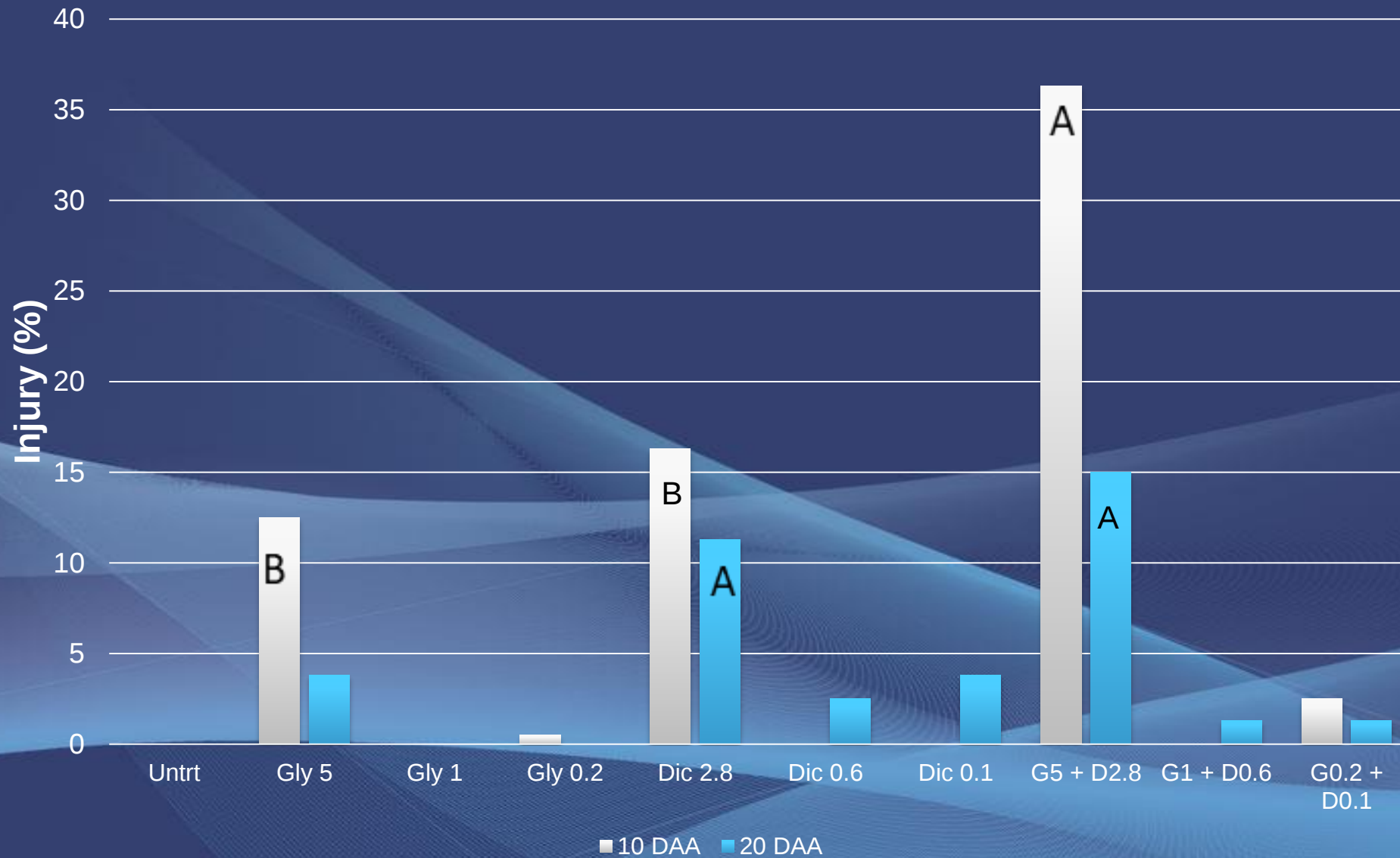
'Red Norland' Vine Desiccation Trials

- Adjuvants (Preference, AG17053, AG13064, AG8050, and AG14039) increased leaf and stem necrosis by approx. 20% compared to diquat alone (7 & 13 DAA).
- Diquat + AG14039 resulted in 65% and 30% lower yield for > 10 oz category compared to untreated and diquat only, respectively.
- Diquat + AG14039 resulted in 56% and 26% higher yield for ≤ 4 oz category compared to untreated and diquat only, respectively.

Simulated drift trial on Potato

- Glyphosate + dicamba drift trials
 - Simulated drift at tuber initiation growth stage
 - Glyphosate 0.2, 0.04, 0.007 lb/A (5, 1, 0.2 oz/A)
 - Dicamba 0.09, 0.02, 0.004 lb/A (2.8, 0.6, 0.1 oz/A)
 - Atlantic (chipping)
 - Inkster location

Injury Evaluations



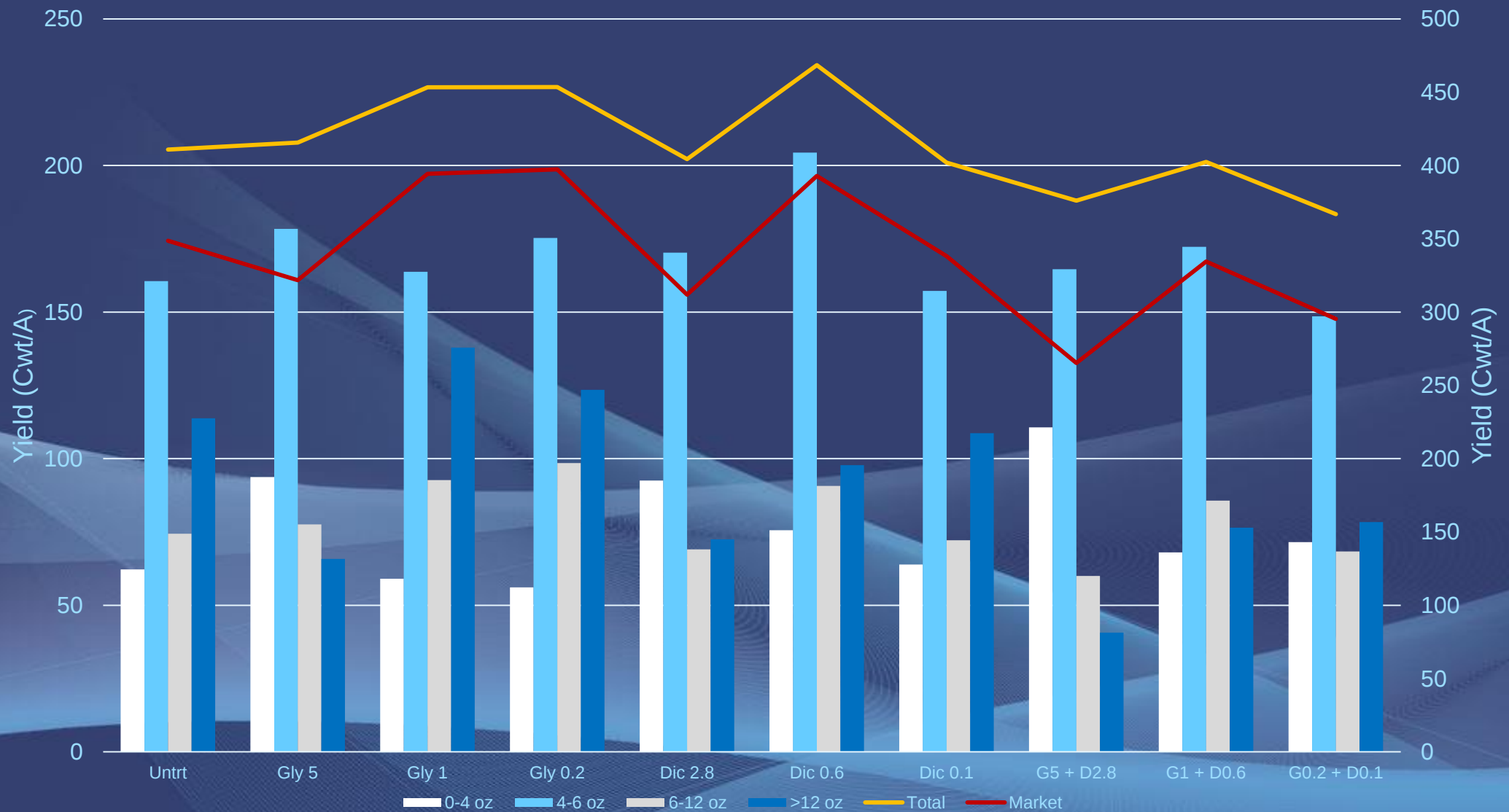


Glyphosate Injury

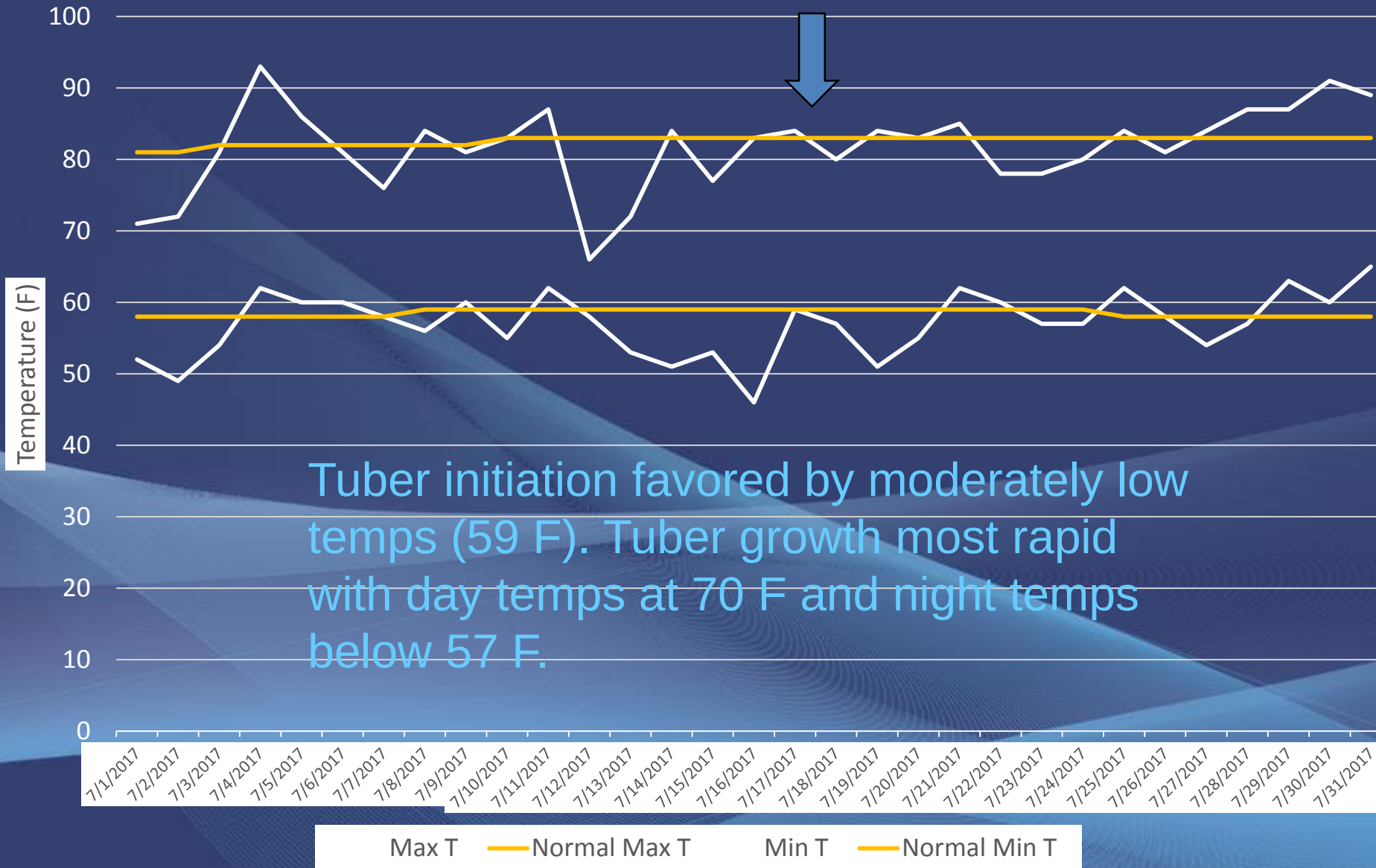


Dicamba Injury

'Atlantic' Yield



Max./Min. Air Temperatures



Pyroxasulfone trial

- Conducted field trial comparing pyrox. alone (PRE) and in combination with labeled herbicides (EPOST) on:
 - Chickpea
 - Faba bean
 - Flax
 - Lentil
- Trial done in collaboration with Dr. Burton Johnson.

Faba Bean June 15, 2017: REP 1

TRT 5 – 27 DAA A, 7 DAA B



3% yield increase compared to
sulfentrazone + metolachlor alone (std)

TRT 6 – 27 DAA A, 7 DAA B



33% yield increase compared to
sulfentrazone + metolachlor alone (std)

Faba Bean June 15, 2017: REP 1

TRT 7 – 27 DAA A, 7 DAA B



TRT – 8 Untreated



284% yield increase compared to untreated
and 13% yield decrease compared to hand-
weeded

Weed control in new transplanted apples

<u>Treatments</u>	<u>Average canopy width (cm)</u>
Herbicide	43.22a
Wood Chips	39.89ab
L. Fabric	35.94abc
Tilled	28.17bcd
Untreated	24.22cd
Mow	22.83d

Weed control in new transplanted apples

<u>Treatments</u>	<u>Apical growth (cm)</u>
Herbicide	53.33a
Wood Chips	38.78bc
L. Fabric	41.22ab
Tilled	26.33cd
Untreated	25.12d
Mowed	20.00d

Herbicides for use in Juneberries

- All herbicides (Alion, Chateau, Goal Tender, Matrix, and Prowl H20) were safe on juneberry.
- Fall applications provided better control of perennial weeds in July compared to spring applications.
- Spring applications provided better control of annual weeds in July compared to fall applications.
- Alion+Prowl+RoundUp was best 10 MAA regardless of application timing.



Questions

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