

Weed Control for Processing Crops is Not Getting Easier with Palmer Amaranth and Herbicide Resistance



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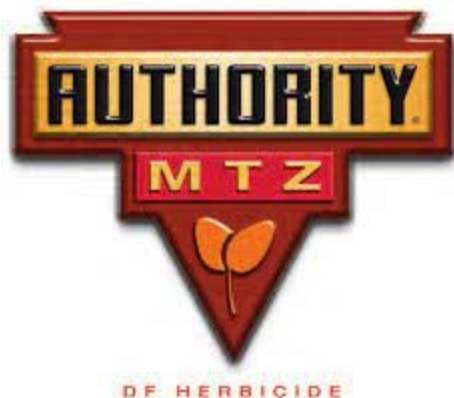
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Topics

- Label Updates
- Summary of 2022 Vegetable Research
- The Bad Boys

Processing Tomato

- Authority MTZ
- Preview 2.1
- Both are sulfentrazone plus metribuzin

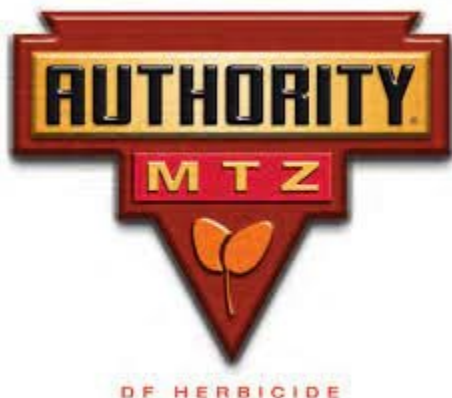


PREVIEW™ 2.1 SC
HERBICIDE

Same AI but Different Ratio

Herbicide	Rate	Metribuzin	Sulfentrazone
Authority MTZ	8 oz	0.13 lb ai (2.8 oz)	0.09
Preview 2.1	10 fl oz	0.17 lb ai (5.4 oz)	0.09

A 30% difference in amount of metribuzin



Sweet Corn

- Premixes labeled
- All PRE/EPOST
- Calibra and Coyote
 - Callisto + Dual
- Empyros
 - Shieldex + Dual
- Restraint
 - Shieldex + Harness



Postemergence HPPD

Group 27

- Broad spectrum, broadleaves
 - Impact/Armezon F/G grass control
 - Laudis similar but weak on fall panicum
- Length of control, Callisto is longest
- Good crop safety
- Beware of rotational issues



24c Labels

- Special Local Needs
- Granted by individual states
- Most have an expiration date
- Be sure the specific label is valid for use and state
- Granted only for specific products
 - If labeled for Brand X, other formulations of the active ingredient are NOT allowed unless they have received their own registration

Halex GT

- Allow processing lima bean to be planted 10 months after application
- Only for DE at this time



2022 Trials

- Herbicide evaluation for lima bean and snap bean
- POST herbicides for sweet potato
- Fall tillage for peas
- Initiated trials looking at herbicide carryover

Summary of 2022 Trials

- Herbicide evaluation for lima bean and snap bean
 - Differences in pyridate formulations
 - Dry (WP) safer than EC
 - F/G on small pigweed
 - Needs more work



Sweet Potato

- Focus was on POST morningglory control
 - No treatment was >50% control
- Injury observed with all treatments
 - How much is acceptable?



Tillage with Peas

- Fall tillage with cover crop versus spring
 - Fall moldboard plow followed by cereal rye
 - Chisel plow followed by cereal rye
 - Cereal rye (no-till), spring chisel plow
 - No cover crop, spring chisel plow



Observations

- Planting no-till in spring did not delay emergence or impact pea vigor
- Needs stout rate of glyphosate for rye
- Spring tillage required delayed planting due to rain
 - no-till ready to plant days earlier
- Fall tillage improved overall weed control
 - Mostly winter annual weeds

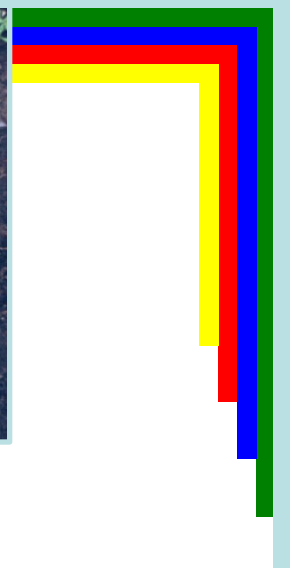




- Summer annual
- Short germination
- 25 to 60K seeds
- Seed longevity 5-10yrs
- Moderate seed size
- Susceptible to tillage
- Competitive



- Summer annual
- Prolonged germination
- +500,000 seeds
- Short lived seed (3yrs)
- Small seeds
- Stem can re-root
- Very competitive



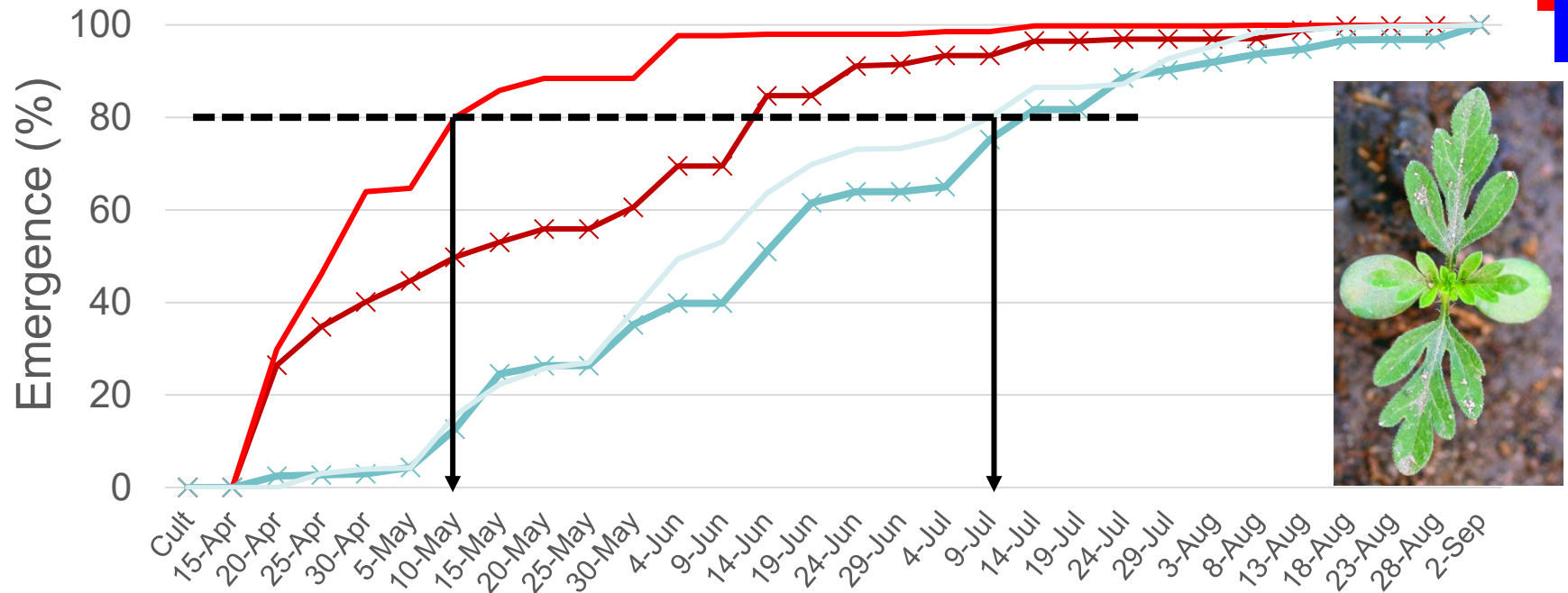
Palmer amaranth

Common ragweed

- Rotation
- Planting date
- Cultivation
- Cover crops
- Chemical
- So many of these are interrelated



Weed Emergence



Veg2-18 to 22
avg presented

✕ C. ragweed No-till

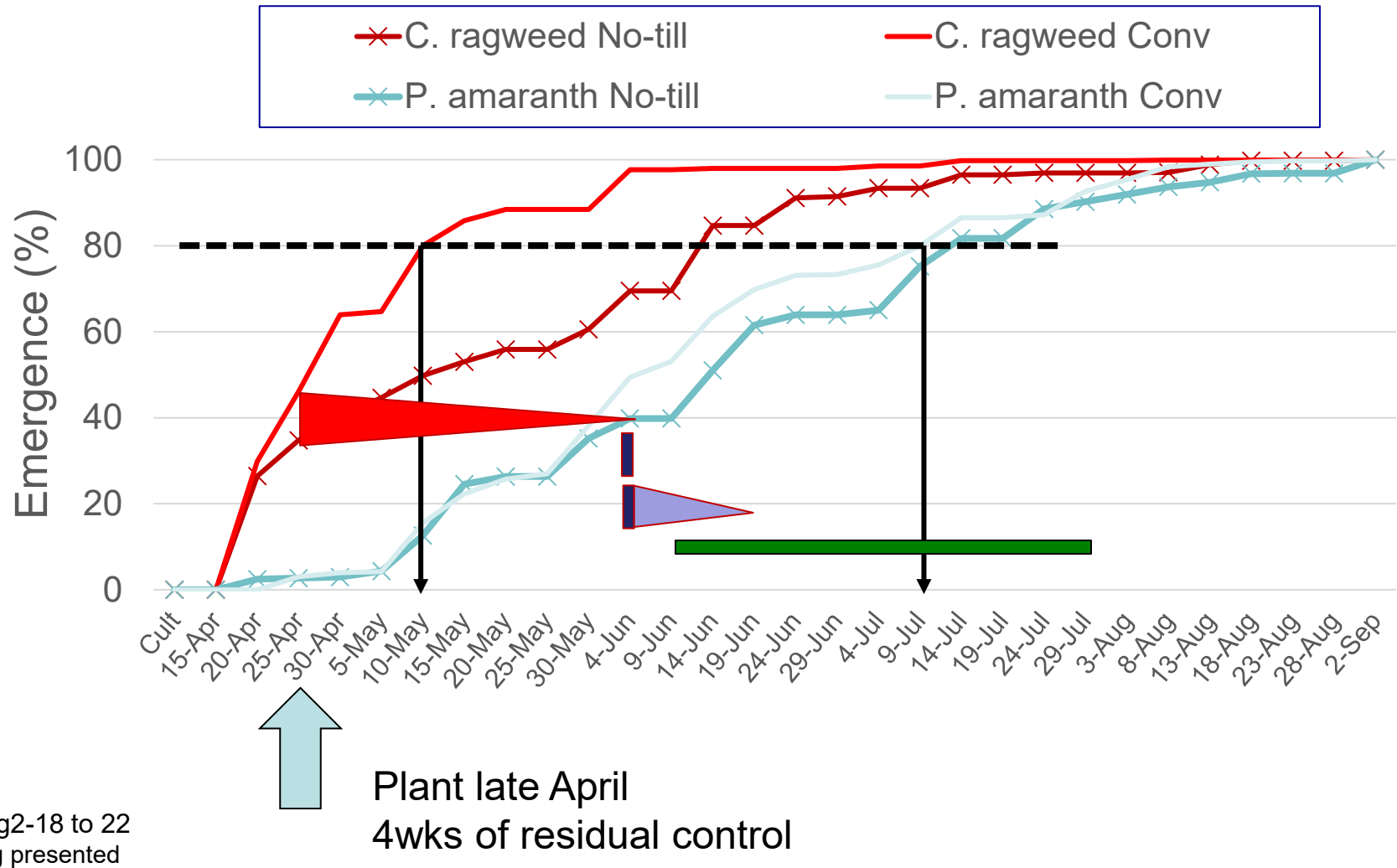
— C. ragweed Conv

✕ P. amaranth No-till

— P. amaranth Conv



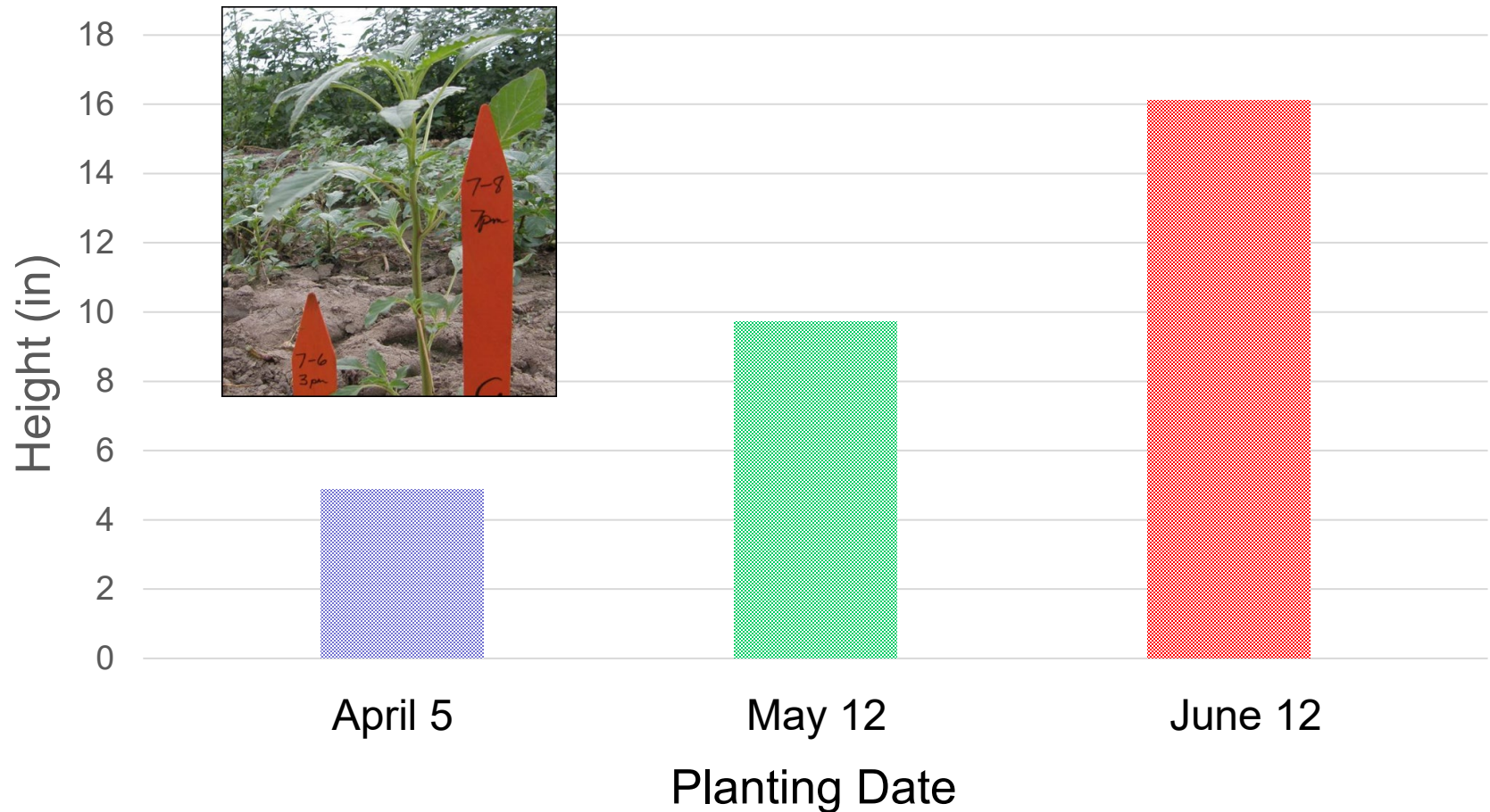
Weed Emergence



Veg2-18 to 22
avg presented

Palmer Amaranth 4 WAP

"clean" at planting



Common Ragweed

Soil-Applied

- Atrazine
- Lorox
- Command
- Sinbar
- atrazine
- metribuzin
- Sandea
- Reflex
- Chateau

Postemergence

- HPPD+atrazine
- Stinger
- Basagran
- GoalTender
- Sandea
- Reflex



Palmer Amaranth

Soil-Applied

- Dual
- Zidua
- Lorox
- Chateau / Valor
- Spartan Charge
- Sinbar
- atrazine
- metribuzin
- Prowl

2 effective herbicides
better than a single

Postemergence

- HPPD+atrazine
- GoalTender
- Reflex



Post-Harvest Management

- Stopping late-season seed production
- Viable seeds are produced within a few weeks of flowering
 - Seeds do not need to be “dry/firm” to be viable
- If you are not removing the plants
 - Post-harvest spraying/tillage is limiting the number of seeds returning to the seedbank

Rotation

- Diversity helps to provide a less favorable environment for the weeds
- The more diverse the rotation the more opportunities to use effective non-chemical options
- Rotation of crops allow for more effective herbicides to be used

Rotation

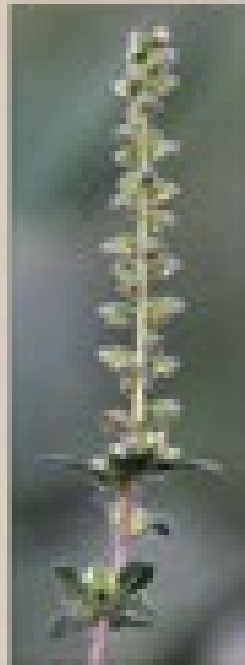
- Rotating to a crop that has more options for control
- Rotating to a crop that has a planting date which puts the weed at a disadvantage
- Rotating to a crop that is more competitive

Gather Resources Now

- Have reference materials on hand and ready access



**An IPM
Pocket Guide
for Weed
Identification
in Field Crops**



Wesley J. Eveman
Christy L. Sprague
Steven A. Gower
Robert J. Richardson

**Weeds OF THE
Northeast**

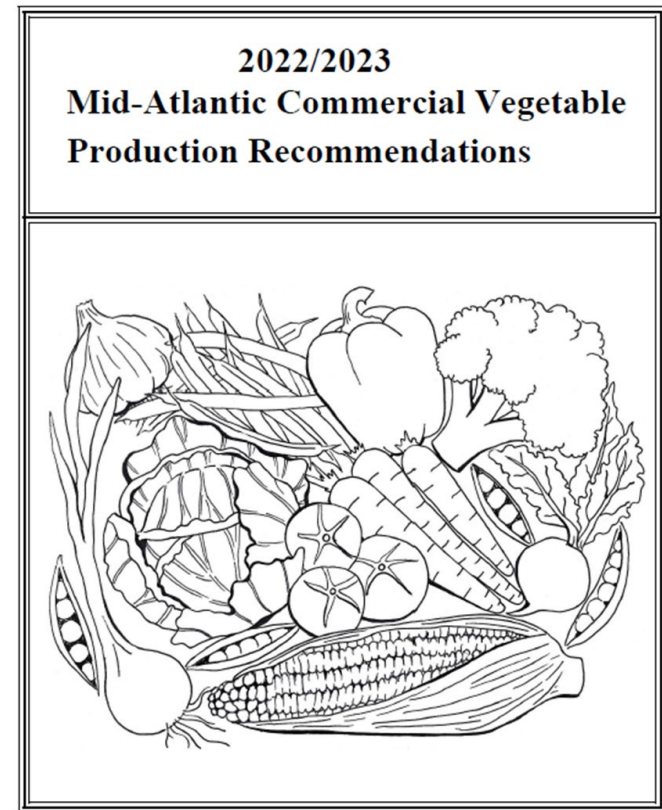


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A GUIDE TO ECOLOGICAL STRATEGIES



Thank you to:



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**Specialty Crop Block
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