

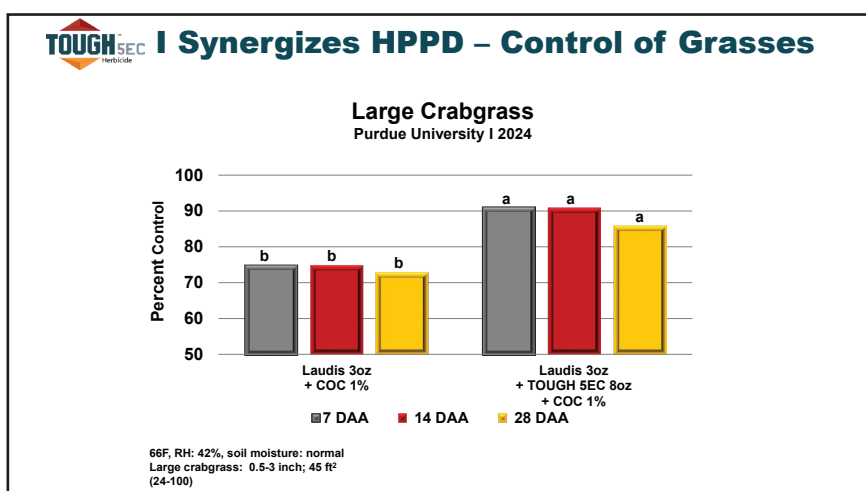
# Technical Bulletin



## Synergizes HPPDs - Laudis® Grass Control

### OBJECTIVE

Many trials were conducted in 2024 to further demonstrate pyridate's (TOUGH® 5EC) proven "synergy" with HPPD herbicides. Trials evaluating tembotrione (Laudis®), were conducted under different conditions & weed spectrums at Universities across the cornbelt. Treatments were included to evaluate pyridate's ability to "synergize" control of grasses. Avoidance of glyphosate in seed corn production makes grass control "synergy" even more important. Trial results are summarized below.



Note: TOUGH significantly synergizes Laudis control by 16%

Photos Taken 14 Days After Application



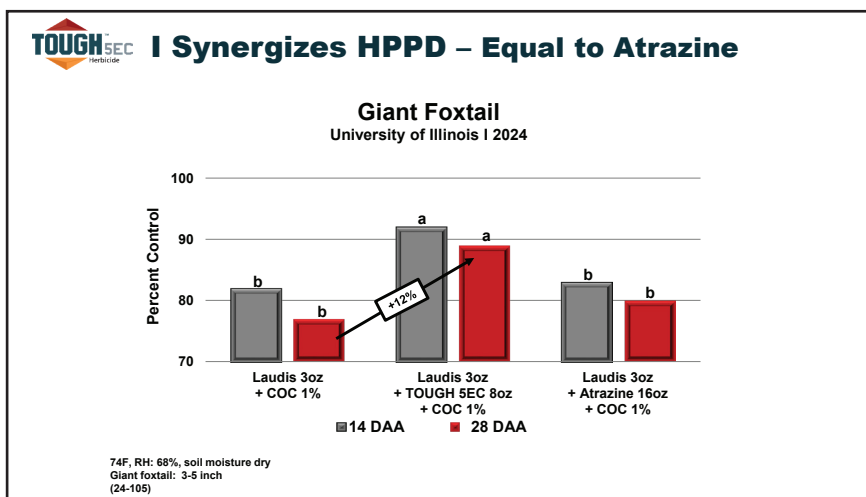
Laudis 3oz



Laudis 3oz + TOUGH 5EC 8oz

The chart to the right shows that TOUGH 5EC synergized Laudis, providing grass control (Giant Foxtail) statistically better than atrazine.

TOUGH 5EC's performance as the synergist is valuable with the current need for effective grass control in seed corn production. In the future, it will be important with the potential absence of atrazine due to regulatory pressure!



Belchim USA

225 Wilmington West Chester Pike | Suite 200 | Chadds Ford, PA 19317

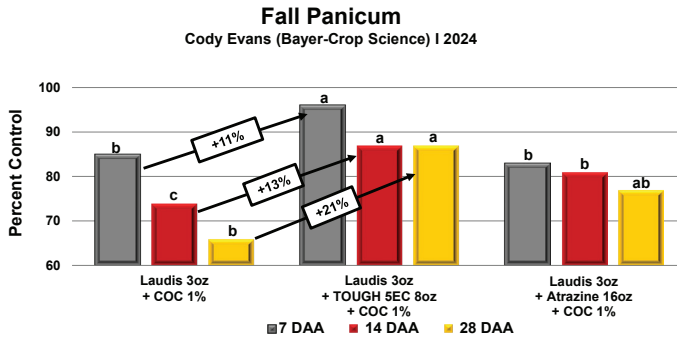
Phone: 855-445-7990 | [www.belchimusa.com](http://www.belchimusa.com)

[info.usa@belchim.com](mailto:info.usa@belchim.com)

Belchim USA  
GROWING TOGETHER



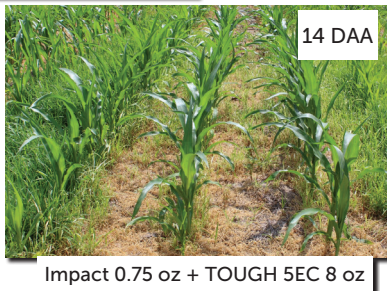
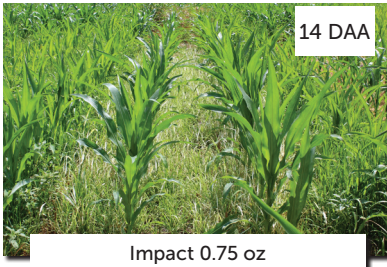
## I Synergizes HPPD – Equal to Atrazine



74F, RH: 68%, soil moisture: dry  
Fall panicum avg. 7" at application  
(24-107a)

The chart to the left shows that TOUGH 5EC synergized Laudis, providing grass control (Fall Panicum) statistically better than atrazine.

Again, TOUGH 5EC's performance as the synergist is valuable today with the need for effective grass control in seed corn production as well as in the future, with the potential absence of atrazine due to regulatory pressure!



Pyridate has been proven to synergize other HPPD's (topramezone) to increase control of other grasses (Cupgrass) that can also impact seed corn.

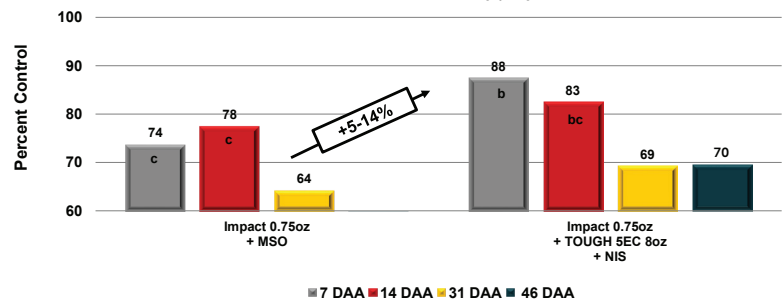


## I Synergizes HPPD – Control of Grasses

### Southwestern Cupgrass Control in Corn

Improved Performance of Impact

Dr. Kumar: Kansas State University | Hays - 2021



Dual II Magnum 1.0pt PRE to all treatments  
AMS added to all foliar treatments

Broadleaves	
Common waterhemp	✓
Palmer amaranth	✓
Common lambsquarters	✓
Velvetleaf	✓
Ivyleaf morningglory	✓
Giant ragweed	✓
Grasses	
Large crabgrass	✓
Giant foxtail	✓
Fall panicum	✓

## RESULT SUMMARY

Adding TOUGH 5EC at the 8oz rate dramatically improved tembotrione control of a variety of broadleaf weeds as well as all grass species tested.

TOUGH 5EC has been proven to synergize all HPPD's, improving control of broadleaf weeds, and now is proven on grasses as well!

Enhancing control of grass weeds can be crucial for maximizing yield, especially in seed corn. Adding TOUGH to your POST application can help achieve this goal!

**Together, we can get TOUGH on Weeds!**

TOUGH is a registered trademark of Belchim Crop Protection, Laudis is a registered trademark of Bayer  
© 2025 Belchim Crop Protection US Corp



**Belchim USA**

225 Wilmington West Chester Pike | Suite 200 | Chadds Ford, PA 19317

Phone: 855-445-7990 | [www.belchimusa.com](http://www.belchimusa.com)

[info.usa@belchim.com](mailto:info.usa@belchim.com)

**Belchim USA**  
GROWING TOGETHER