

What's new in turf weed science.... lots!

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April 26, 2018

Industry Update

- Dow and DuPont merger is complete
 - Q4 2017
 - Three major divisions of DowDupont
 - **Corteva** is the new agchem spinoff company
- **New industry representatives**
 - Anita Alexander retired from Dow, Amy Agi will be our new rep
 - Kaelyn Knoche, Corteva sales and marketing based in Atlanta
 - Bobby Walls will be retiring from FMC in July

Roundup-Ready Turfgrass

- **Scotts launching ETQ program**
 - St. Augustinegrass and Kentucky bluegrass
 - More turfgrass species to follow
- **Benefits**
 - Incorporate glyphosate in rotation programs
- **Implications for the industry**
 - Shift in weeds
 - Resistance – How long?

Roundup-Ready Turfgrass

- Selection pressure from glyphosate will shift weed populations
- Weeds not controlled by glyphosate (examples)
 - Dollarweed
 - White clover
 - Doveweed
 - Alligatorweed







Glyphosate 5.4L at 18 oz/acre
8 Weeks After Treatment



Liberty

**Last year's little weed could
become this year's big problem.**

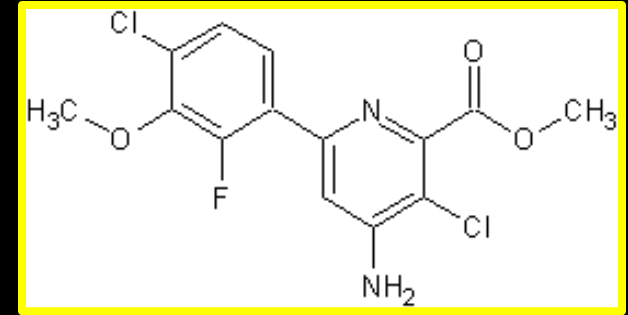
LIBERTY®

LIBERTYLINK®

REAL YIELD

LINKUP PROGRAM™


Relzar



- **Active ingredients**
 - halauxifen + florasulam (0.2 lb each/1 lb)
 - WG formulation
 - Dow Agrosiences
- **Use in turfgrass**
 - All major warm and cool-season species
 - Postemergence broadleaf weed control
 - Labeled at 0.72 oz/acre for all grasses

Dandelion 4 DAT



A photograph of a grassy field with a white trapezoidal outline. In the center of the trapezoid is a white sign on a black pole. The sign contains text about a herbicide application. The background is a green lawn with some brown patches and two orange stakes in the distance.

**Relzar 0.72 oz/a +
Agridex 0.25% v/v**

Applied March 21, 2018

2 WAT

Relzar 0.72 oz/a +
Agridex 0.25 %v/v
Applied April 4, 2018

Relzar at 0.72 oz/acre

Celsius 3.57 oz/a
Applied April 4, 2018

Celsius at 3.75 oz/acre

4 WAT

Relzar 0.72 oz/a +
AgriDex 0.25% v/v
Applied March 21, 2018

Celsius 3.57 oz/a
Applied March 21, 2018

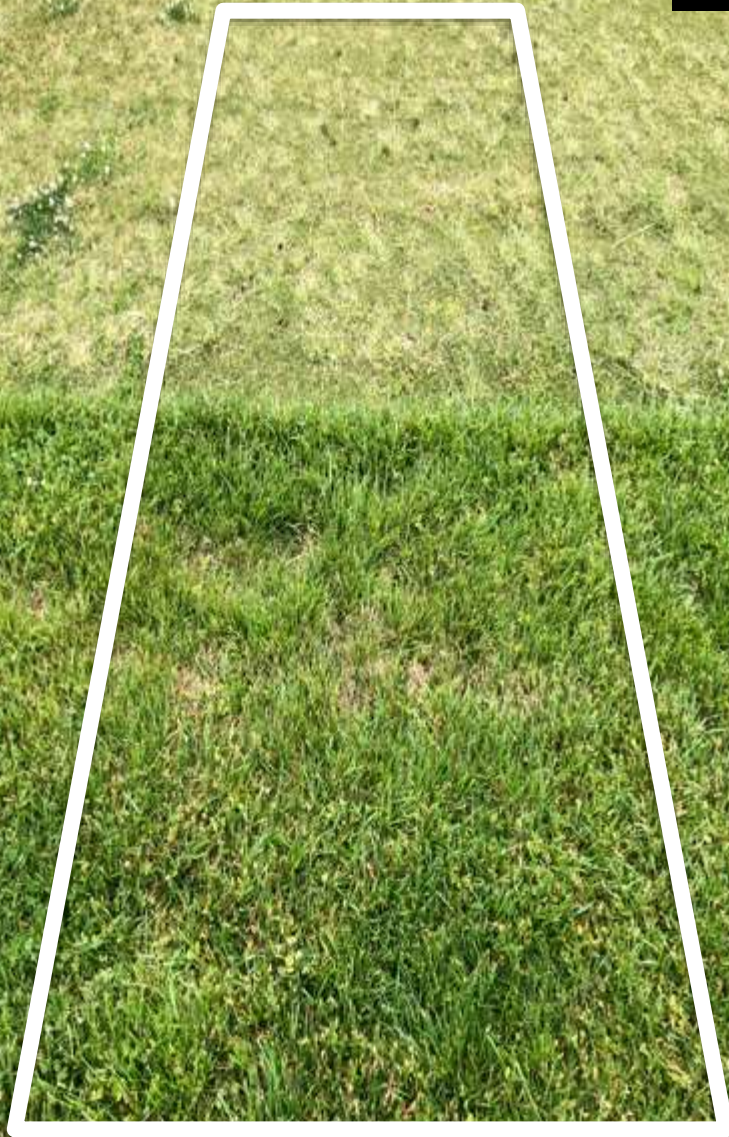
Relzar at 0.72 oz/acre

Celsius at 3.75 oz/acre

Relzar at 0.72 oz/acre

Celsius at 3.75 oz/acre

3 WAT



Relzar (5 WAT)



Relzar (5 WAT)



Relzar (halauxifen + florasulam)

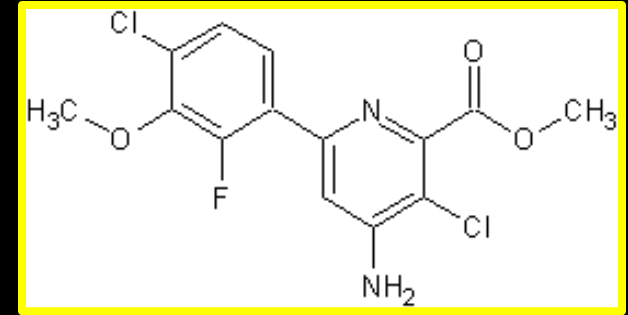
- **Advantages**

- Single use rate (0.72 oz/acre)
- Safety on warm and cool-season grasses
- Speed of control
- Seedhead control
- Activity on doveweed

- **Considerations**

- Centipedegrass tolerance may be inconsistent
- Two applications may be needed for perennial broadleaf weeds
- No activity on grassy weeds
- Does not control lespedeza, speedwells, or grassy weeds

GameOn



- **Active ingredients**

- Halauxifen + 2,4-D choline + fluroxypyr
- Dow Agrosiences
- Released in 2018

- **Use in turfgrass**

- Cool-season grasses, bermudagrass, and zoysiagrass
- Excellent on perennial broadleaf weeds

GameOn (2 WAT)

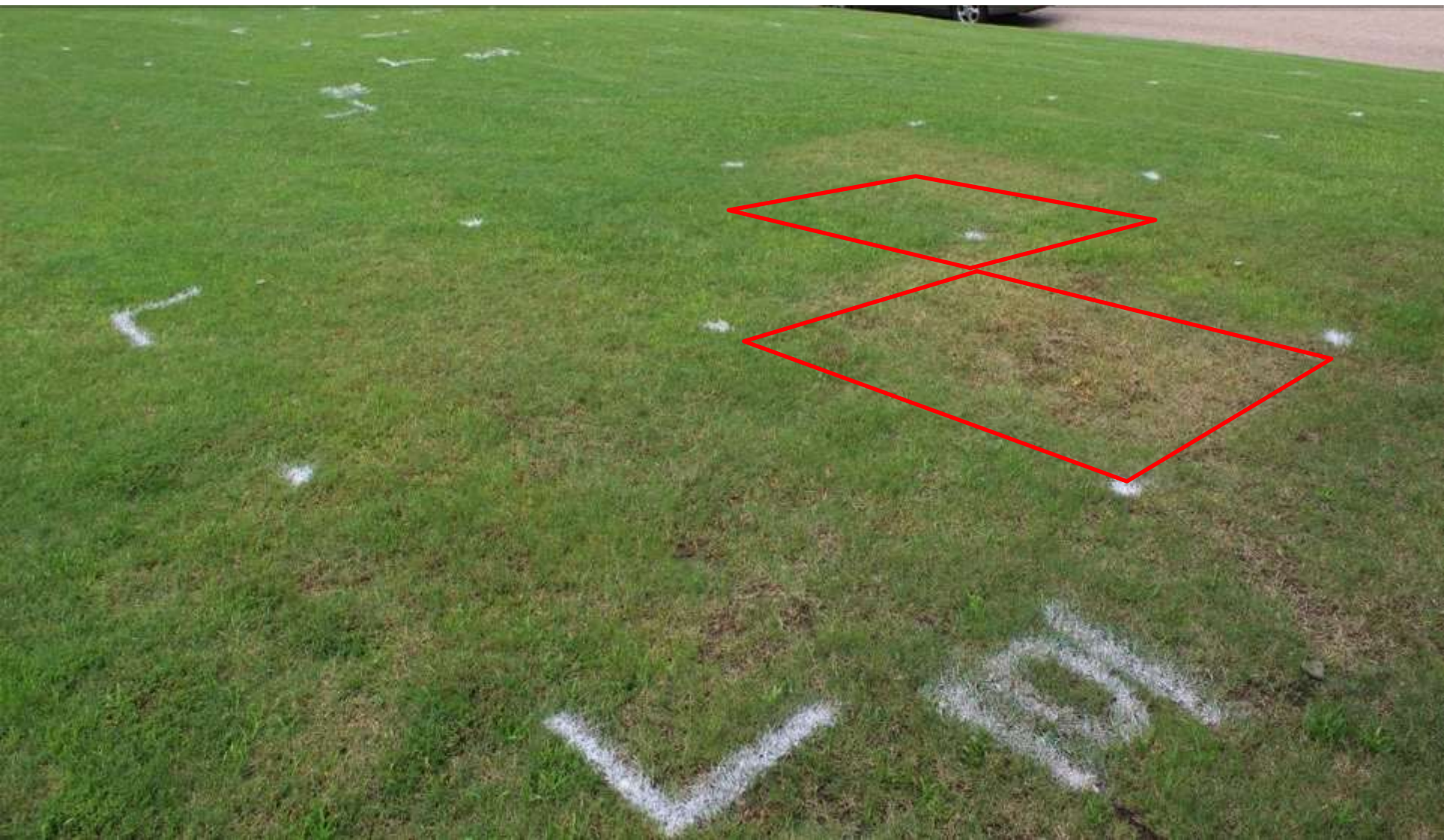




GameOn 3 pt/a

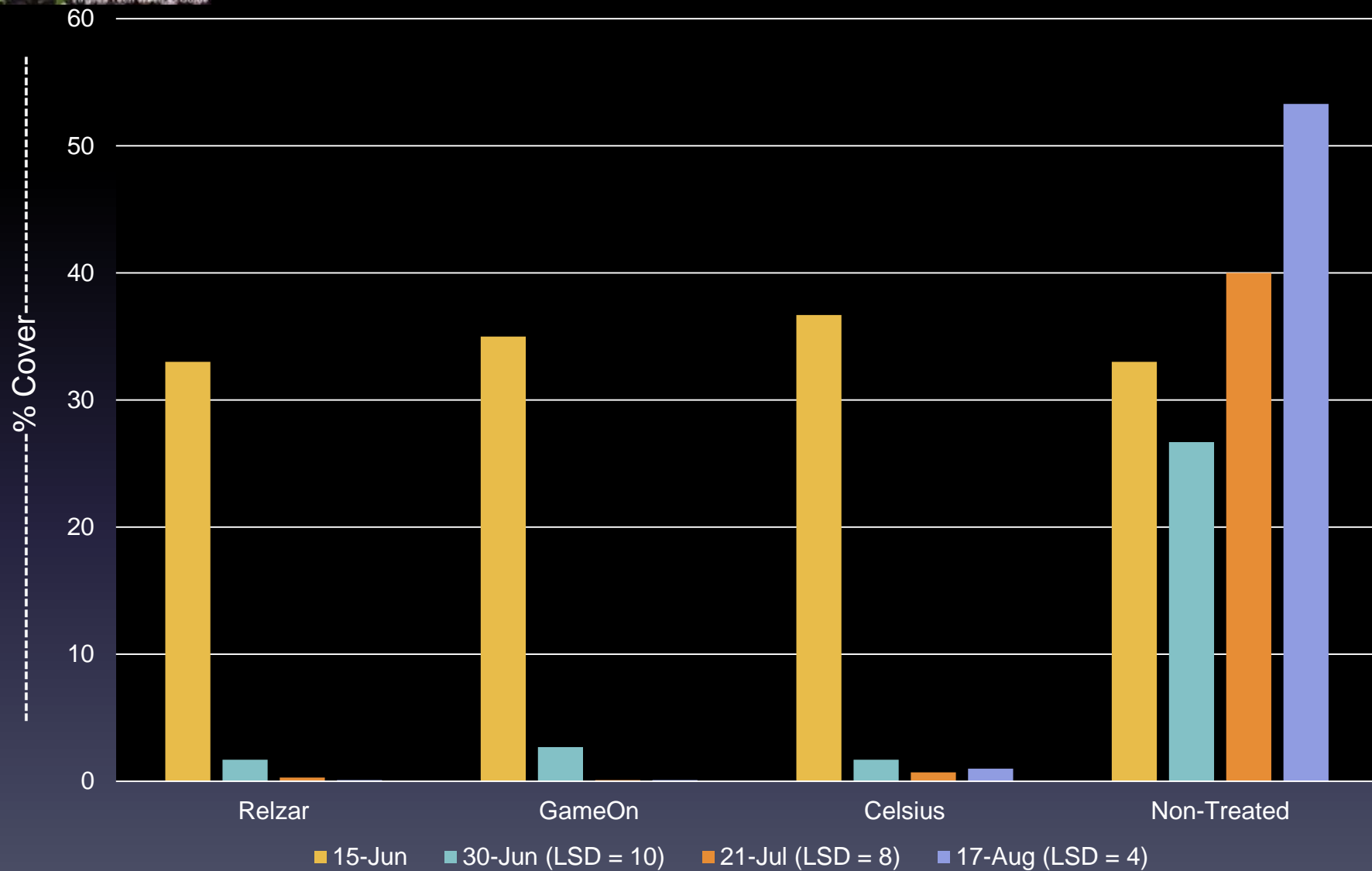
Applied March 21, 2016

Injury from GameOn on June 27— two weeks after first application (McElroy, Auburn)





Doveweed Control (Auburn)



Switchblade

- Active ingredients

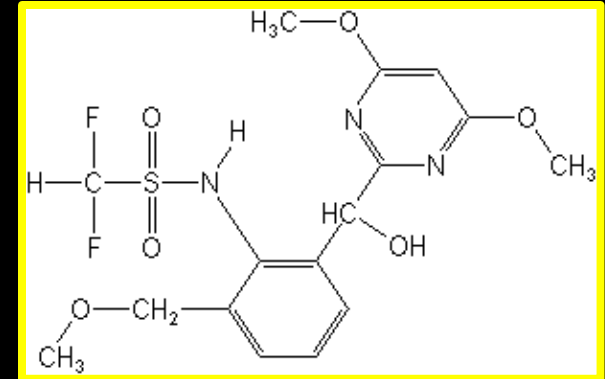
- Halauxifen + dicamba + fluroxypyr
- PBI Gordon
- Released in 2018/2019

- Use in turfgrass

- Warm and cool-season grasses including centipede and St. Aug
- Excellent on perennial broadleaf weeds

pyrimisulfan

- **Trade Name:** Vexis
 - PBI Gordon release in 2018
 - Mode of action: ALS-inhibitor
 - Granular product in combination with penoxsulam
- **Potential uses in turf**
 - Warm-season grasses
 - Broadleaf weed control, sedges
 - Root absorption, do not need dew for weed control



Vexis 90 g ai/ha
Applied October 15, 2015

16 WAT

Photo: 2/1/16

Vexis 90 g ai/ha
Applied October 15, 2017



24 WAT

Photo: 3/28/16

Vexis control of sticky chickweed and failure to control parsley-piert and *Poa annua*



Photo Credit: Shawn Askew, Virginia Tech





Monument 29 g ai/ha
Resistant Biotype



NB39185 180 g ai/ha
Resistant Biotype



Monument 29 g ai/ha
Susceptible Biotype



NB39185 180g ai/ha
Susceptible Biotype

Vexis

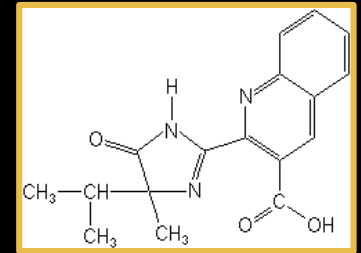
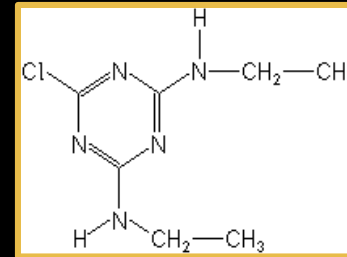
- **Benefits**

- Root uptake, does not require dew for GR formulation
- Warm-season turf safety
- Sedge control
- Dollarweed control with penoxsulam combination
- Potential activity on sulfonylurea resistant sedge (Partial control)

- **Weeds it misses**

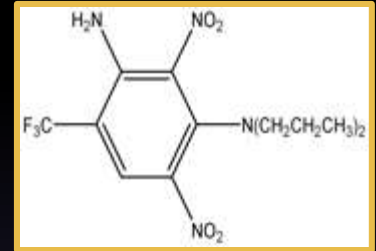
- *Poa*
- Goose
- Crabgrass
- Several broadleaf weeds

Coastal



- **Active ingredients**

- Simazine + imazaquin + prodiamine
- Potential release in 2018/2019
- Under evaluation from Sipcam



- **Use in turfgrass**

- PRE + POST weed control
- Three modes of action for Poa, ryegrass, other resistant weeds



SA-0220109 138 fl

NIS 0.25 %V/V

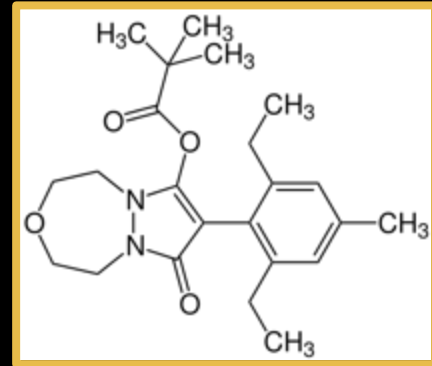
Photo: 5/1/17



SA-0220109 138 fl
NIS 0.25 %V/V

Photo:

pinoxaden



- **Trade name:** Manuscript
 - Mode of action: ACCase-inhibitor (Group 1)
 - Syngenta
- Bermudagrass and zoysiagrass only
 - POST crabgrass, tropical signalgrass, dallisgrass
 - Does not control goosegrass
- **Advantages and disadvantages**
 - Potential to control dallisgrass and TSG in spring and summer
 - Will be the only ACCase-inhibitor labeled in bermudagrass
 - Resistance to ACCase chemistry

Specticle Flo label

- New label will be out in Q3 2018
- Changes
 - Seashore paspalum will be included
 - Modifications to rate tables
 - Emphasis on PRE timings

Thanks!

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