

The background of the slide features a close-up photograph of several ears of corn. One ear in the foreground is partially husked, showing its golden-yellow kernels. Behind it, another ear is more fully covered in its green and yellowish husks. The corn is set against a solid, deep blue background. The overall composition is vertical, with the corn occupying the left and center portions of the frame.

2018 Field Corn Weed Management Update

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Field Corn Weed Control - General

- ❑ Other mgt. practices are important!
 - ❑ *Tillage*
 - ❑ *Plant population*
 - ❑ *Row spacing*
 - ❑ *Nematode, insect, disease control*
 - ❑ *Irrigation*
- ❑ A healthy and uniformly spaced crop is better able to compete with weeds

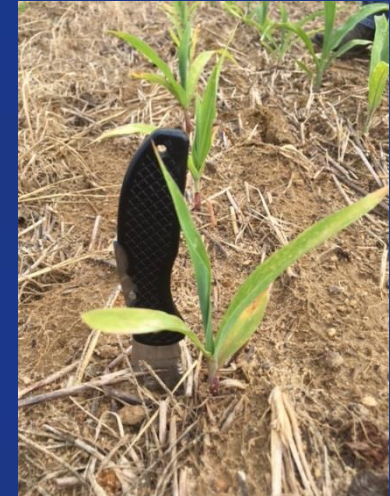


Herbicide Carryover in GA?



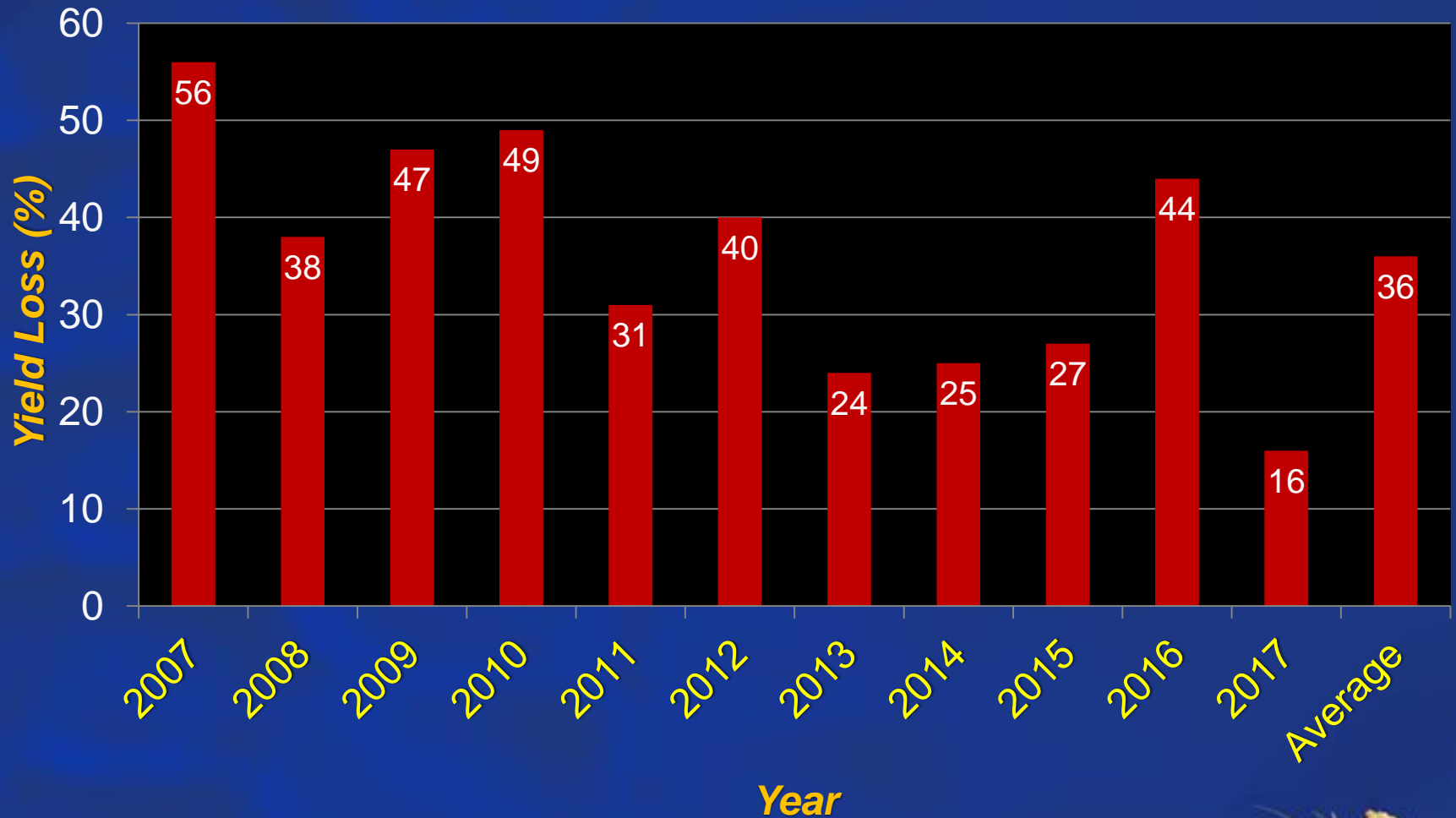
- Never say never but
- *low OM*
- *high sand content*
- *warm temperatures*
- *ample rainfall/irrigation*

Herbicide Carryover or Nematodes



Burke County
April 2017
Stubby Root Nematodes
21/100cm³ of soil
>9 is threshold

Figure 1. Field Corn Yield Loss (%) Caused by Uncontrolled Weeds in Georgia Weed Science Research Trials (2007-2017). *Treated vs. Non-treated*



200 Bu/A X 0.36 X \$3.50 = \$252/A
200 Bu/A X 0.16 X \$3.50 = \$112/A

Later POST Applications?

- V6 stage
 - all leaves are initiated
 - Ear shoot initiation
 - Kernel rows/ear begins
 - Tassel initiation
 - Growing point above soil surface
 - ~500 GDD



Marestail in Field Corn (i.e. Horseweed)



- Tillage
- Burndown
 - *Liberty (glufosinate)*
 - + *atrazine*?
 - *Glyphosate* +
 - *Dicamba* or *2,4-D*?
 - *Sharpen* + *MSO*
 - 0 day plant-back
 - *Paraquat* + *atrazine*
- Residual
 - *atrazine*
- In-Crop
 - *Liberty (LL)*
 - *Dicamba*
 - *2,4-D*
 - *Enlist corn* - *2,4-D choline*

Ryegrass Control



□ Glyphosate-resistant or not?

□ Fall (mid-October – Mid-November)

- *Tillage (double disk) or*
- *Dual Magnum @ 1.33 pt/A*

□ Mid-January – Mid-February

- *2" - 6" tall*
- *Select Max 0.97EC @ 6 oz/A or Clethodim 2EC @ 6-8 oz/A*
 - *Corn – 30 DBP*
 - *Nighttime temps > 47° F*

□ March 1-20

- *Gramoxone 2SL @ 3-4 pt/A*
- *May need 2 applications (10-14 days apart)*
- *+ atrazine @ 1 qt/A*



Field Corn Weed Control - 2017



NTC



Roundup P-Max @ 32 oz/A
Atrazine @ 64 oz/A
Prowl H₂O @ 32 oz/A

Late-Season Weed Control



NTC



Roundup P-Max @ 32 oz/A
Atrazine 4L @ 64 oz/A
Prowl H₂O @ 32 oz/A
Applied 17 DAP

CN-02-17
July 24
118 DAP

Field Corn Weed Control - 2017



NTC



Liberty @ 29 oz/A
Atrazine @ 64 oz/A
Prowl H₂O @ 32 oz/A

Field Corn Weed Control - 2017



NTC



Halex GT @ 58 oz/A
Atrazine @ 64 oz/A
Adept @ 0.25% v/v

Normal Halex GT Injury



CN-05-17
April 24
7 DAT

Field Corn Weed Control - 2017



NTC



Revulin Q @ 3.4 oz/A
Atrazine @ 64 oz/A
Adept @ 0.25% v/v

CN-02-17
April 27
13 DAT

Field Corn Weed Control - 2017



NTC

CN-02-17
April 27
13 DAT



Laudis @ 3 oz/A
Atrazine @ 64 oz/A
MES 100 @ 1% v/v



Morningglory Control in Field Corn



Morningglory Control in Corn

- as much atrazine as possible
- 1.0 lb/A – PRE fb 1.5 lb/A – POST
 - small grain rotations
- 2,4-D, Clarity, Status, Aim, ET, Evik (PDIR)
 - **Enlist Corn???**
- Liberty-Link® Corn Systems
- split applications of glyphosate (RR corn)
 - * *1st application + atrazine*
- Harvest Aids
 - Aim
- Early-harvest



Do we need to rethink laybys????



NTC



Atrazine 4L @ 32 oz/A (PRE)

Roundup WM @ 32 oz/A +
Atrazine @ 48 oz/A (21 DAP)



Atrazine 4L @ 32 oz/A (PRE)

Roundup WM @ 32 oz/A +
Atrazine @ 48 oz/A (21 DAP)

Evik @ 2 lb/A + NIS (37 DAP)

Evik or Not?



NTC



Atrazine 4L @ 32 oz/A (PRE)


Roundup P-Max 5.5SL @ 32 oz/A (POST)
Atrazine 4L @ 48 oz/A (POST)



Atrazine 4L @ 32 oz/A (PRE)

Roundup P-Max 5.5SL @ 32 oz/A (POST)
Atrazine 4L @ 48 oz/A (POST)

Evik 80DG @ 2 lbs/A (PDIR)
NIS @ 0.25% v/v (PDIR)



What herbicides can you use in field corn if you have resistance to glyphosate, atrazine, and/or ALS herbicides?

Residuals

- Zidua
- Dual Magnum
- Warrant
- Prowl

Postemergence*

- Liberty
- Status
- Revulin Q
- Impact/Armezon
- Laudis
- Capreno
- Halex GT
- 2,4-D

* double-crop soybean rotations?



Field Corn Weed Control Without Atrazine or Glyphosate - 2017



NTC
(209 Bu/A)



Dual II Magnum @ 16 oz/A (PRE)
Laudis @ 3 oz/A (28 DAP)
COC @ 1% v/v (28 DAP)
AMS Xtra @ 2.5% v/v (28 DAP)
(251 Bu/A)



Warrant @ 48 oz/A (PRE)
Laudis @ 3 oz/A (28 DAP)
COC @ 1% v/v (28 DAP)
AMS Xtra @ 2.5% v/v (28 DAP)
(247 Bu/A)

CN-03-17
May 18
51 DAP
DKC 66-59

New (er) Stuff



Enlist™ Herbicide Tolerant Corn

Robust Tolerance

- Robust tolerance to PRE and POST applications of 2,4-D
- Post application from emergence to V8
- Robust tolerance to FOP herbicides for breeding selection

2240 g ae/ha 2,4-D 2 DAT 2X max. use rate

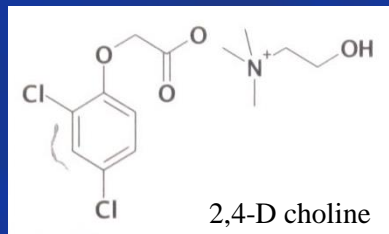


Brace Root Injury
2,4-D 2240 g ae/ha



Dow AgroSciences
SCIENCE. YIELD. SUCCESS.™

- tolerance to 2,4-D and Assure + GLY
- Trait was deregulated in September 2014 and herbicide in October 2014. U.S. launch in 2018 (SE??).
- Colex-D™ technology
 - 2,4-D choline
 - lower volatility
 - lower drift potential
 - enhanced handling/mixing characteristics
 - reduced odor
- 1 PRE application + 2 POST applications (30" or V8 stage)
- Enlist™ Duo
 - DMA-Glyphosate (1.71 lb ae/gal) + 2,4-D choline (1.63 lb ae/gal)
- Enlist™ One
 - 2,4-D choline (3.8 lb ae/gal)



Enlist™ Field Corn Hybrids - 2018

- China approval
 - *June 2017*
- Limited or no data for SE?????
 - *Broadbeck*
 - *Dairyland*
 - *Mycogen*
 - *Pfister*
 - *Prairie Brand*



Post-Harvest



Palmer amaranth



tropical spiderwort
Benghal dayflower

Post-Harvest Control of Palmer Amaranth

(8.1" average: 2"-17" range at application)

NTC

**Gramoxone Inteon 2SL @ 3 pt/A
2,4-D Amine 3.8SL @ 1 pt/A
Primary @ 1% v/v**

**Gramoxone Inteon 2SL @ 3 pt/A
Clarity 4SL @ 8 oz/A
Primary @ 1% v/v**



Post-Harvest Control of Tropical Spiderwort



Untreated



Gramoxone
POST1 + POST2

*POST1: 8-10" tall COMBE
POST2: 2 weeks later
Photo 1 week after POST2*

Questions/Comments?

