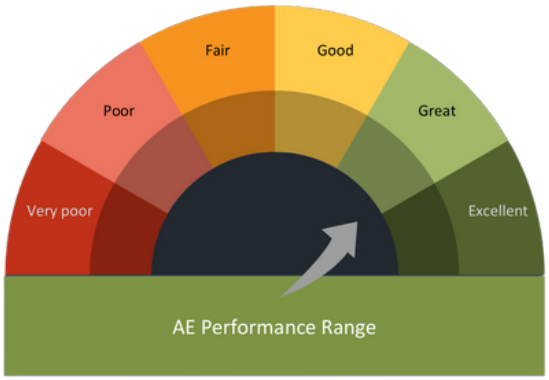
agrellus PROVING GROUND

AG ADJUVANT

Ag A®

CLAIM:
Ag A increases herbicide efficacy

TESTING METHOD:
Ag A Control/Test plots at two farms



"THINK LIKE A FARMER" FARM LEADER FEEDBACK

- "When Spraying I noticed the plant looks wetter and noticed less drift from the cab of the sprayer."
- It mixes really well and doesn't gum things up."
- "The Kill was amazing, I loved that little amount of regrowth."
- "It actually killed the plant rather than just burning it."
- "I plan on using this product on all my acreage moving forward."
- "The plot AgA was used in completely killed the mature weeds where the other weeds were just set back in growth."
- "When I was spraying I visibly noticed the leaves of the treated area looked wetter than usual."
- "The big weeds were dead in the test plot, where numerous fields around the county had not been able to completely kill any large weeds with Liberty this year."
- "I believe if I would have used AgA with the first and second Liberty (Glufosinate) applications I probably would not have needed to spray the third time this year and would not have been dealing with big weeds all year."
- "The performance we experienced merits the use of Ag A across 90% of my acreage next year."

TRIAL OVERVIEW

Farm 1: 45% Greater Herbicide Efficacy

Farm 2: 25% Greater Herbicde Efficacy
Reduced herbicide usage by 50%

Locations: Dickens & Gains County, TX

Trial Period: 8/26/22 - 9/20/22

Crop: Upland Cotton

Target: Discover how the use of Ag A affects weed termination when used in conjunction with Glufosinate herbicide.

Products Used
- Glufosinate herbicide
- 41% Glyphosate
- Granular Sprayable Ammonium Sulfate
- Ag A

Weeds
- Palmer Amaranth
- Lacunose Juvenal
- Kali tragus

Conclusions
- **Farm 1**
  - Small Investment
  - Increased herbicide efficacy
  - Improved physical drift control
- **Farm 2**
  - Small Investment
  - Increased herbicide efficacy
  - Major positive economic affect due to reduced herbicide usage

OBSERVATIONS & RESULTS
FARM 1

Control Tank Mix
- 40 ounces glufosinate (Liberty)
- 3 lbs Sprayable Ammonium Sulfate

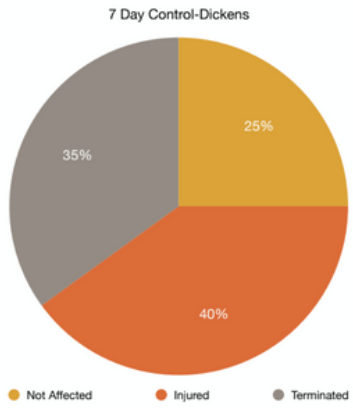
Test Tank Mix
- 40 oz glufosinate (Liberty)
- 3 lbs Sprayable Ammonium Sulfate
- 4.8 oz Ag A

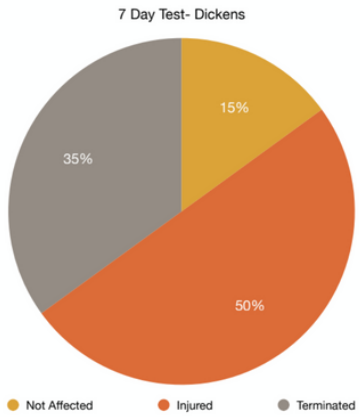
Application Report
- Date - 8/26/22
- Equipment - John Deer 4730
- Ground Speed: 14MPH
- Pressure: 100 PSI
- Winds: 2-4 MPH SSW
- Humidity: 72%
- Temperature 74F

Weather Pattern
- Increased efficacy of herbicide in test & control groups due to
- Unseasonably high humidity
- Timely rainfall 8/29-31

7 Days Post Application

	Not Affected	Injured	Terminated
Control	25%	40%	35%
Test	15%	50%	35%





Control- 35% of weeds have been terminated. 40 % of weeds are injured causing yellowing and damage of weeds foliage. The last 25% of the weeds are alive with no damage done to them as of yet. Majority of terminated and sick weeds are smaller however foliage on larger weeds around the terminal is sick.

Test- Treatment terminated 35% of weeds. 50% of the weeds injured and damaged. The majority of terminated weeds at this point are smaller and the larger weeds are sick. with only 15% unaffected by the treatment.

OBSERVATIONS & RESULTS
FARM 1

	21 Days Post Application		
	Not Affected	Injured	Terminated
Control	25%	25%	50%
Test	2%	3%	95%

Control- termination of 50%, a sick rate of 25%, and 25% alive. The termination majority was smaller weeds the larger weeds are responsible for the majority of live weeds with regrowth around the base of the plant.

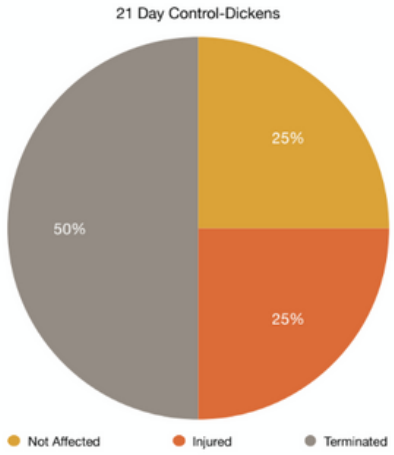
Test group- 95% termination rate across all sizes of weeds. With the remainder of 3% injured and 2% alive.

FARM 1
ECONOMIC IMPACT

PRODUCT COSTS
- Glufosinate - $60/gal
- Glyphosate - $31.50/gal
- Sprayable Ammonium Sulfate - $0.49/lb
- Ag A $43.60/gal (Totes)
- Ag A $75.88/gal (Jugs)

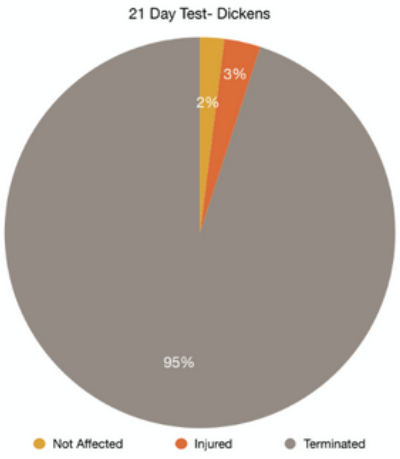
CONTROL TANK MIX
- $20.22/Acre

TEST TANK MIX
- $23.07/Acre (Ag A Jugs)
- $21.86/Acre (Ag A Totes)



FARM 1
CONCLUSION

- The overall risk in integrating Ag A in a weed control regimen is extremely low
  - Small Investment
  - Increased herbicide efficacy
  - Improved physical drift control



FARM LEADER FEEDBACK

"I believe if I would have used AgA with the first and second Liberty (Glufosinate) application I probably would not have needed to spray the third time this year and would not have been dealing with big weeds all year. The performance we experienced merits the use of Aga across 90% of my acreage next year"

OBSERVATIONS & RESULTS
FARM 2

Control Tank Mix
- 40 ounces Glufosinate (Liberty)
- 32 ounces 41% Glyphosate (RoundUp)
- 3 lbs Sprayable Ammonium Sulfate

Half Rate Control TankMix
- 20 oz Glufosinate (Liberty)
- 16 ounces 41% Glyphosate (RoundUp)
- 3 lbs Sprayable Ammonium Sulfate

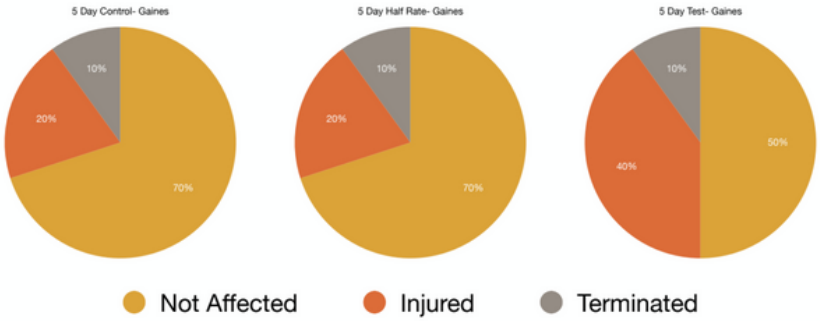
Test Tank Mix
- 20 oz Glufosinate (Liberty)
- 16 ounces 41% Glyphosate (RoundUp)
- 3 lbs Sprayable Ammonium Sulfate
- 2.4 oz Ag A

Weather Pattern
- Drought Conditions
- .041" rainfall post application
- Unseasonably high humidity

Application Report
- Date - 8/29/22
- Equipment - John Deer 4730
- Ground Speed: 15MPH
- Pressure: 70 PSI
- Winds: 6 MPH ESE
- Humidity: 39%
- Temperature 92F

5 Day Post Application

	Not Affected	Injured	Terminated
Control	70%	20%	10%
Half Rate Control	70%	20%	10%
Test	50%	40%	10%



Test: 10% of the weed's foliage. 40% of the weed's foliage was sick starting to change color and shriveling up. 50% was alive and unaffected.

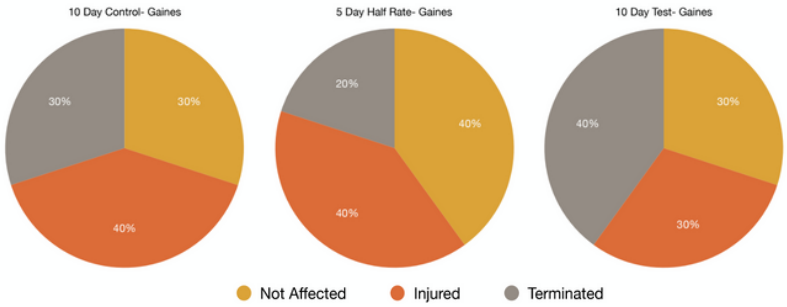
Half Rate Control: 10% terminated. Top of foliage on larger weeds died and small weeds were dying. 20% were sick; foliage starting to turn off color and shriveling up. 70% are alive and unaffected.

Control:10% terminated. Top of foliage on larger weeds died and small weeds were dying. 20% were sick; foliage starting to turn off color and shriveling up. 70% are alive and unaffected.

OBSERVATIONS & RESULTS
FARM 2

10 Day Post Application

	Not Affected	Sick	Terminated
Control	30%	40%	30%
Half Rate Control	40%	40%	20%
Test	30%	30%	40%



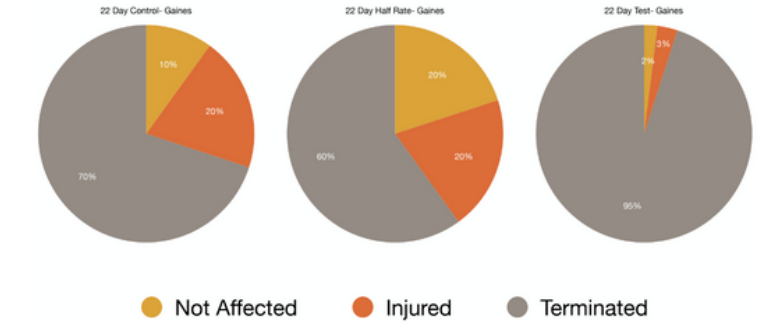
Test: 40% Terminated. heads and top half of weeds died. 30% of the weeds are sick or dying with the bottom 30% of weeds still alive.

Half Rate Control: 20% termination with the majority of the weeds sick. The majority of the weed termination is in the top of large plants. The base of weeds are still green and healthy.

Control: 30% termination of weeds. Most of the termination of the weeds is in the top foliage and seed heads. The weeds that are still alive are smaller weeds and under the canopy of larger weeds and cotton.

22 Day Post Application

	Not Affected	Sick	Terminated
Control	10%	20%	70%
Half Rate Control	20%	20%	60%
Test	2%	3%	95%



Test: Termination 90-95%. Small weeds were completely eliminated 5% left is in the canopy of cotton or large weeds.
Control: Termination 70%. Remaining 30% of weeds are preexisting weeds at base building back with new regrowth
Half Rate Control: Termination 60%. 20% unaffected and 20% aggressive regrowth.

OBSERVATIONS & RESULTS
FARM 2

FARM 2
ECONOMIC IMPACT

PRODUCT COSTS
- Glufosinate - $60/gal
- Glyphosate - $31.50/gal
- Sprayable Ammonium Sulfate - $0.49/lb
- Ag A $43.60/gal (Totes)
- Ag A $75.88/gal (Jugs)

CONTROL TANK MIX
- $28.10/Acre

HALF RATE CONTROL TANK MIX
- $14.79/Acre
-

TEST TANK MIX
- $16.21/Acre (Ag A Jugs)
- $15.61/Acre (Ag A Totes)

FARM 2
CONCLUSION

- The overall risk in integrating Ag A in a weed control regimen is extremely low
  - Small Investment
  - Increased herbicide efficacy
  - Major positive economic affect due to reduced herbicide usage

FARM LEADER FEEDBACK

"It actually killed the plant rather than just burning it."

"I plan on using this product on all my acreage moving forward."

PROVING GROUND CERTIFIED

AG ADJUVANT

Ag A®

Proving Ground Certified Date: October 5th 2022

Certified by:
Jess Brockman
Proving Ground Field Lead

Evan Stone
Vice President Operations and Business Development