

TECHNICAL EDUCATION BULLETIN

## Get ready for a bigger win over early-season weeds

Introducing Reviton™ a new and powerful non-selective herbicide for the preplant burndown and desiccation segments.

With a novel active ingredient, Reviton delivers high levels of performance to prepare fields for the cleanest start possible while protecting emerging crops against the threat of resistant weed competition.

### Technical Overview

Reviton is an innovative PPO-inhibitor herbicide for broad-spectrum control of early-season weeds in corn (field), cotton, soybeans and wheat. Powered for fast burndown, Reviton provides growers with unique product qualities that include an ultra-low use rate, broad tank mix compatibility, crop rotation flexibility and expanded use as a desiccant for cotton.

Its proprietary, next-generation active ingredient called Tergeo™ demonstrates effective control of more than 50 broadleaf and grass weeds, including ALS, triazine and glyphosate-resistant species.

A preeminent new tool for row crop growers, Reviton quickly eliminates early weed infestations resulting in a stronger clean start foundation to maximize yield potential and better return on investment.

### Power. Performance. Confidence.

Reviton delivers the right kind of burndown solution for today's most challenging weed control issues.

**Powerful Performance:** Fast early-season burndown for more timely planting and improved crop emergence.

**Low Use Rate:** Greater convenience and efficiency while reducing container size and application rates.

**Resistance Management:** A new tool with a novel active ingredient to combat herbicide-resistant weeds.

**Peace of Mind:** Minimal risk of crop injury and yield loss due to phytotoxicity, pH restrictions and carryover.

Palmer Amaranth Control		Broad-Spectrum Weed Control	
			
Untreated	Reviton @ 2 fl oz/A 7 days after application	Untreated	Reviton @ 2 fl oz/A 7 days after application

2020 Memphis TN. Reviton applications included a premium MSO and AMS. Applied to 3" - 4" weeds.

## Product Specifications

<b>Brand Name</b>	Reviton™
<b>Active Ingredient</b>	Tergeo™
<b>Category</b>	Herbicide
<b>Crops</b>	Corn (field), cotton, soybeans, wheat
<b>Weed Spectrum</b>	50+ broadleaf & grass species
<b>Site of Action</b>	Group 14 herbicide / PPO-inhibitor
<b>Chemistry Family</b>	Pyrimidinedione
<b>Formulation</b>	Suspension concentrate
<b>AI/Gallon</b>	2.83 lbs of active ingredient per gallon
<b>Applications</b>	
<b>Burndown</b>	Preplant / Preemergence
<b>Desiccant</b>	Cotton only: broadcast apply prior to harvest
<b>Rates</b>	
<b>Used Alone</b>	Reviton @ 2 fl oz/A
<b>Tank mix</b>	Reviton @ 1 fl oz/A + glyphosate @ 32 fl oz/A
<b>Signal Word</b>	Caution

## Primary Weeds Controlled (or suppressed)

Amaranth (Palmer)	Mayweed chamomile
Barnyardgrass	Morningglory species
Carpetweed	Mustard
Chickweed	Nightshade species
Cocklebur	Pigweed species
Crabgrass	Prickly lettuce
Dandelion	Prickly sida
Downy brome	Prostrate knotweed
Evening primrose	Purslane
Field bindweed	Ragweed species
Filaree	Shepherd's purse
Foxtail species	Sicklepod
Goosegrass	Sowthistle
Hairy fleabane	Velvetleaf
Henbit	Volunteer canola
Johnsongrass (seedling)	Volunteer corn
Kochia	Volunteer wheat
Lambsquarters	Waterhemp
Little barley	Wild buckwheat
Mallow	Wild oats
Marestail	Willowweed

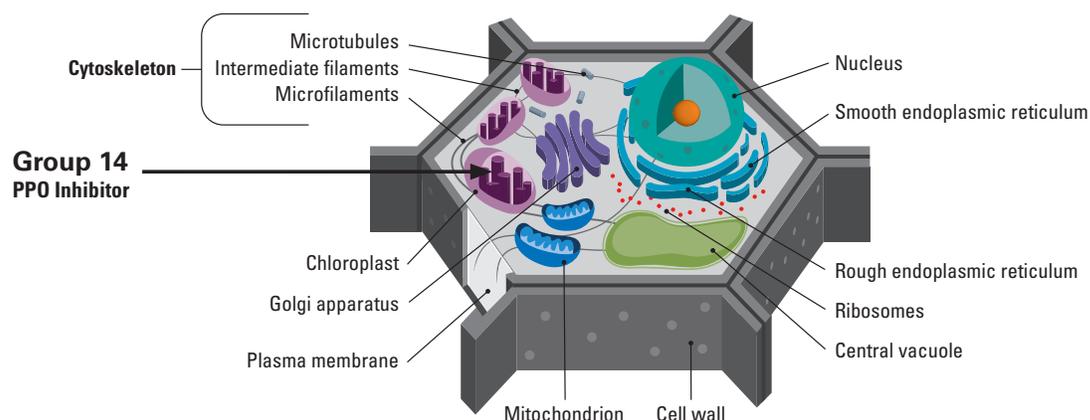
**Adjuvant Use:** Reviton applications require the addition of an adjuvant applied at label recommended rates. Although the label allows for Methylated seed oil (MSO), non-ionic surfactants (NIS) and crop oil concentrate (COC) adjuvants to be used, MSO-based adjuvants are recommended to achieve the most consistent performance. COC and NIS are not the preferred adjuvants for use with Reviton. However, research has shown that some premium COC and NIS products can achieve similar levels of performance to that of MSO products. For guidance on these premium COC and NIS products, contact your HELM Agro US representative. For specific instructions for adjuvant use, mixtures and spray volume, always reference the Reviton label.

## How Reviton Works

Reviton is powered by a new active ingredient called Tergeo, a protoporphyrinogen IX oxidase (PPO)-inhibiting pyrimidinedione herbicide with a WSSA Group 14 classification.

PPO is an enzyme found in chloroplast and necessary for chlorophyll formation in plants. As a pyrimidinedione herbicide, Tergeo shuts down chlorophyll production and photosynthesis resulting in a rapid built up of reactive oxygen species and lipid per oxidation of the cellular membrane followed by quick herbicidal effects.

Tergeo is described as being fast-acting with herbicidal effects occurring 24 hours after treatment.



**Diagram: Anatomy of a plant cell**

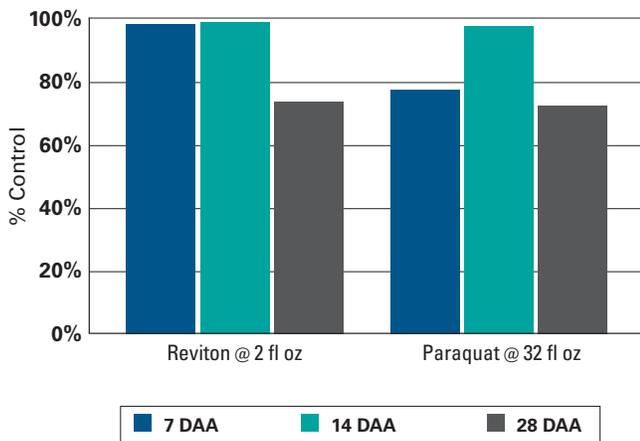
## Field Trial Data

In more than 700 North American product development trials and regulatory studies, Reviton has demonstrated extremely high performance ratings in burndown efficacy - providing reliable and consistent control of tough weeds like Palmer amaranth, giant ragweed and lambsquarters.

Formulated as a suspension concentrate with an ultra-low use rate, Reviton is an excellent fit for reduced- and no-till production systems. Reviton also provides greater flexibility in crop rotation and plant back options across a variety of crops.

### Velvetleaf Burndown Summary

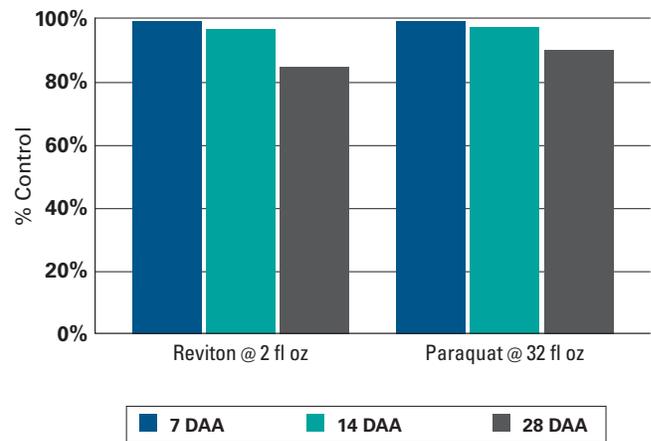
% Weed Control



All treatments include a premium MSO and AMS. Applied to 3" - 4" weeds.

### Giant Foxtail Burndown Summary

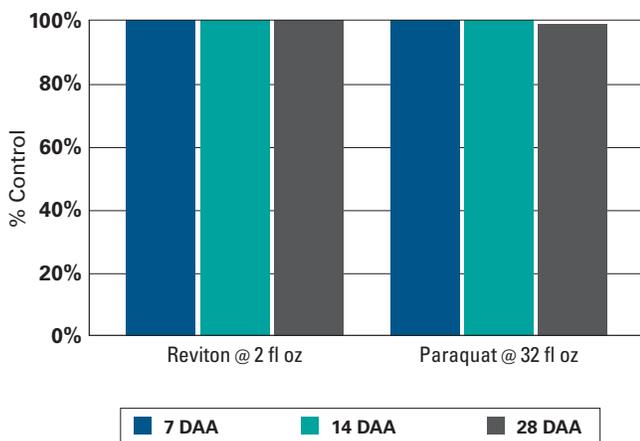
% Weed Control



All treatments include a premium MSO and AMS. Applied to 3" - 4" weeds.

### Cocklebur Burndown Summary

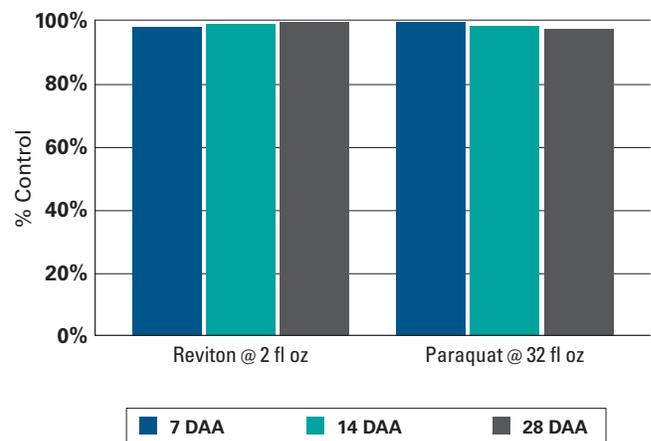
% Weed Control



All treatments include a premium MSO and AMS. Applied to 3" - 4" weeds.

### Prickly Sida Burndown Summary

% Weed Control



All treatments include a premium MSO and AMS. Applied to 3" - 4" weeds.

## Reviton in Action

With growers seeking new strategies to strengthen their existing weed control programs, Reviton’s powerful foundation in preplant burndown sets the stage for season-long success.

Reviton-treated fields benefit from weed control that will ease planting and ensure optimum yields while managing the risk of herbicide resistance.

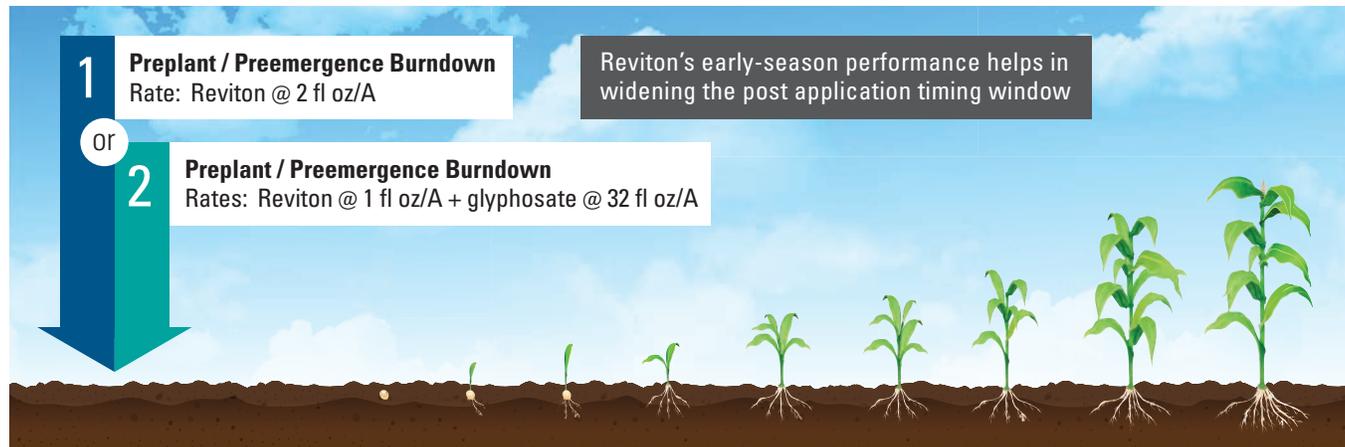


Reviton herbicide performance on broadleaf and grass weeds.

## Flexible Use Options

Reviton provides stand-alone or tank mix options to address many of today’s most pressing weed control challenges.

1	<h3>Using Reviton alone</h3> <ul style="list-style-type: none"> <li>• Effective control of herbicide-resistant weed species</li> <li>• Faster performance than 2,4-D and glyphosate</li> <li>• Reduces reliance on glyphosate to maintain its effectiveness for long-term use</li> </ul>	2	<h3>Using Reviton + glyphosate</h3> <ul style="list-style-type: none"> <li>• Effective control across a broad spectrum of weeds</li> <li>• Stronger crop establishment to maximize yield potential</li> <li>• Reduces reliance on older chemistry while providing mode of action diversity</li> </ul>
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## Lessening the Impact of Resistance

At a time when few new molecules are being discovered, Reviton offers breakthrough technology. With an active ingredient never used before in the U.S., Reviton will be an important tool for helping growers take the selection pressure off of chemistries like 2,4-D and dicamba to preserve their effectiveness for long-term use.



For more information, visit [discoverhelm.com](http://discoverhelm.com).

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