CADET®
HERBICIDE

Investing in farming’s future.

CORN EDITION

FMC
# TABLE OF CONTENTS

## I. PROBLEM
Glyphosate Resistance is a Growing Threat ............................................. Page 3

## II. BEST PRACTICES SOLUTION
**EARLY POSTEMERGENCE HERBICIDE TREATMENT**
Attack Weeds Early to Preserve Yields ........................................... Pages 4-6

## III. CADET®
**BEST GLYPHOSATE PARTNER FOR GREATER RESULTS**
Cadet in Every Tank of Glyphosate .................................................. Page 7
Cadet Offers Better Weed Control....................................................... Page 8
Research Confirms Strong Performance........................................... Pages 9-10
Excellent Crop Safety ................................................................. Page 11
Labeled for Both Corn and Soybeans............................................... Page 12

## IV. CADET PRODUCT INFORMATION
Tank Mix Use Rates ................................................................. Page 13
Adjuvant Flexibility ................................................................. Page 13
Pre-Harvest Intervals (PHI) ....................................................... Page 13
Tank Mixing Compatibility with Herbicides and Insecticides ........ Page 14
Troublesome Weeds Controlled/Suppressed .................................. Page 14
Local Use Recommendations for Enhanced Results ....................... Page 14
Adding Value to Glyphosate ....................................................... Page 15
GLYPHOSATE RESISTANCE IS A GROWING THREAT

- Some of these weeds are also resistant to triazine and ALS inhibitors
- Resistant issues are expected to continue
- Research has also confirmed kochia biotypes that are resistant to glyphosate and other problem weeds such as lambsquarters are not being effectively controlled with glyphosate
- Regardless of the level of resistance most weed scientists agree that problems with controlling these weeds will become more numerous
- The continuous use of glyphosate alone will favor the expansion of resistance

Charts courtesy of Mike Owen, Iowa State University
**ATTACK WEEDS EARLY, WHEN THEY ARE SMALL TO PRESERVE YIELDS AND IMPROVE PROFITS**

Waiting to make postemergence herbicide applications can cost you money. University research confirms that if postemergence control is delayed significant yield loss will occur due to early season weed competition. Corn yield can be reduced significantly. Are you willing to accept that loss?

- Left untreated, weeds compete with crop for:
  - nutrients
  - space
  - light
  - water (weeds can use from 200-700 lbs of water to produce 1 lb of dry matter. 1-Lambsquarters – 660 lbs, 1-Pigweed – 300 lbs. Example: 4 lambquarters plants per yard competing with a crop for 3 weeks would take 1.0 inch of water to produce 350 lbs of dry matter. Weeds compete for space and light and cause corn plants to try to grow away from weeds in an attempt to capture more light.)

- Weeds also host insects and disease pathogens

**CADET® IN EVERY TANK OF GLYPHOSATE ENHANCES POSTEMERGENCE BROADLEAF WEED CONTROL**

- Takes out broadleaf weeds glyphosate and ALS herbicides can leave behind

- Excellent fit in a Roundup Ready® program to enhance glyphosate and gain better weed control with the first application

- Provides a second additional mode of action in the tank to reduce selection of weeds to a single herbicide class

- Broadens weed spectrum control and increases the level of control to reduce the risk of weeds building up herbicide resistance

- Exhibits excellent crop safety
**ATTACK WEEDS EARLY, WHEN THEY ARE SMALL TO PRESERVE YIELDS AND IMPROVE PROFITS**

Treat weeds when they are 2-4" tall, not when they are 8-16" tall. Controlling weeds when they are small is always better than controlling them later.

<table>
<thead>
<tr>
<th>TREAT HERE</th>
<th>NOT HERE</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Waterhemp" /></td>
<td><img src="image2" alt="Waterhemp" /></td>
</tr>
<tr>
<td><img src="image3" alt="Lambsquarters" /></td>
<td><img src="image4" alt="Lambsquarters" /></td>
</tr>
<tr>
<td><img src="image5" alt="Velvetleaf" /></td>
<td><img src="image6" alt="Velvetleaf" /></td>
</tr>
<tr>
<td><img src="image7" alt="Pigweed" /></td>
<td><img src="image8" alt="Pigweed" /></td>
</tr>
<tr>
<td><img src="image9" alt="Nightshade" /></td>
<td><img src="image10" alt="Nightshade" /></td>
</tr>
</tbody>
</table>
CADET® PLUS GLYPHOSATE

Smartweed  Pigweed  Morningglory

STRIKE FAST ON BROADLEAF WEEDS
NEBRASKA

Cadet 0.5 oz + Liberty® 32 oz + Atrazine 0.5 lb
7 – DAT
Common Lambsquarters and Kochia
CADET® TEAMS UP WITH GLYPHOSATE FOR GREATER RESULTS

• Great tank mix partner with atrazine and dicamba products to improve postemergence performance

• Controls troublesome ALS-, atrazine- and/or glyphosate–resistant weeds

• Excellent tank mix partners in Roundup Ready®, LibertyLink® or conventional hybrids bringing additional weed control and another mode of action

• Targets and controls problem weeds:
  - Velvetleaf
  - Waterhemp
  - Lambsquarters
  - Pigweed
  - Morningglory
  - Spurred anoda
  - Burcucumber
  - Jimsonweed
  - Nightshade

• Exhibits excellent crop safety for corn and soybeans eliminating concerns for drift or tank contamination compared to other corn post herbicides

• Offers a wide application window from the two-leaf stage up to 48-inch tall corn

• Applied with first in-crop herbicide application eliminates weed competition earlier and maximizes yields for higher profits

• Can be applied by air or ground
WEED CONTROL IN CORN WITH POST HERBICIDES
SDSU - SOUTH SHORE

Application on 2-4" weeds at 34 days after plant. 20 gpa, 30 psi, XR nozzles
CADET® AND GLYPHOSATE DELIVER ENHANCED BROADLEAF WEED CONTROL

WEED CONTROL IN CORN YIELDS

Data 2008

Palmer Pigweed

Marestail

Broadleaf Signalgrass

Yield (bu/A)

- Cadet 0.5 oz/A + Atrazine 1 pt/A + COC 1% v/v
- Cadet 0.5 oz/A + Glyphosate 22 oz/A + NIS 0.25% v/v
- Cadet 0.5 oz/A + Atrazine 2 pt/A + Glyphosate 22 oz/A + NIS 0.25% v/v

(Summary of Five University Trials) Data courtesy of Dr. Ken Smith and Dr. Bob Scott - University of Arkansas Extension; Dr. Larry Steckel – University of Tennessee and Dr. Alan York – North Carolina State University
SOUTHERN ILLINOIS UNIVERSITY STUDY OF VELVETLEAF, COMMON RAGWEED AND WATERHEMP
SOUTHERN ILLINOIS UNIVERSITY, 26 DAT

MICHIGAN STATE UNIVERSITY STUDY OF LAMBSQUARES
MICHIGAN STATE UNIVERSITY

14 DAT

56 DAT
KENTUCKY/NEBRASKA STUDY DEMONSTRATING CORN SAFETY

KENTUCKY/NEBRASKA

| Glyphosate | 1 qt/A  |
| Atrazine   | 2 lb/A  |
| Cadet®     | 0.5 oz/A |
| AMS (Extra Point) | 20 GPA |
| 4 DAT      |         |
| Kentucky, 2009 |     |

| Glyphosate | 1.5 pt/A  |
| Cadet      | 0.6 oz/A  |
| AMS        | 8.5 lb/100 gal |
| 3 DAT      | 15 GPA     |
| Nebraska, 2008 (Wet Conditions) |    |

CADET: EFFECTIVE WEED CONTROL WITH SUPERIOR CROP SAFETY

UNIVERSITY OF NEBRASKA

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Corn Yield Bu/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadet 0.4 oz + Glyphosate Xtra 24 oz + AMS</td>
<td>250.2</td>
</tr>
<tr>
<td>Resource® 3 oz + Glyphosate Xtra 24 oz + AMS</td>
<td>246.7</td>
</tr>
<tr>
<td>Glyphosate Xtra 24 oz + AMS</td>
<td>238.7</td>
</tr>
</tbody>
</table>
**LABELED FOR BOTH CORN AND SOYBEANS**

- Eliminates the need to change the rate or rinse equipment when switching crops
- Allows for greater efficiency of time and resources

These photos were of the same adjacent corn and soybean fields that were treated with Cadet®. Photos were taken approximately 16 weeks apart.
CADET® TANK MIX WITH GLYPHOSATE TARGETS TOUGH BROADLEAF WEEDS
FOR FIELD, POP AND SWEET CORN (PROCESSING ONLY) AND SOYBEANS

Use Rate

- 0.4-0.6 oz/A – tank mixed with labeled rates of glyphosate herbicides in Roundup Ready® corn
- 0.6-9.0 oz/A – for control of labeled weeds alone or in a tank mix with other post herbicides
- Apply early to small weeds (2-5 inches tall) for best performance
- Use a minimum of 15 gpa spray volume and medium droplet size to insure good coverage and best control of weeds
- Use drop nozzles when corn is taller than 30 inches for better weed coverage between rows and avoid concentrating spray on crop leaves and whorls
- Can be applied by ground or air

Adjuvants

- Apply with NIS at 1 qt/100 gal or COC at 1-2 pt/A. UAN at 1-2 qt/A or AMS at 8-17 lb/100 gal may be added. If applying with a glyphosate herbicide that contains an adjuvant, no additional NIS is required.

Convenient Pre-Harvest Interval

- Do not harvest corn for forage for 30 days or 90 days for grain or stover after last application
- Sweet corn may be harvested 40 days after the last application
**Excellent Tank Mixing Compatibility with Herbicides and Insecticides**

- Offers outstanding flexibility to tank mix with most postemergence herbicides and insecticides except insecticides containing chlorpyrifos

**Weeds Controlled/Suppressed**

- Velvetleaf
- Common lambsquarters
- IVyleaf morningglory
- Tall morningglory
- Eastern black nightshade
- Burcucumber
- Common waterhemp
- Tall waterhemp
- Kochia
- Spurred anoda
- Jimsonweed
- Russian thistle

**Additional Use Recommendations for Enhanced Performance**

- Add Cadet® to normal tank mix program with glyphosate at 0.5 - 0.9 oz/A
- Cadet can provide enhanced control or suppression of ragweed and marestail but will not provide complete control of these weeds if they are tolerant or resistant to glyphosate. Additional tank-mix partners will be required to control glyphosate tolerant biotypes
**CADET® HERBICIDE – ADDING VALUE TO GLYPHOSATE AS AN EFFECTIVE TANK MIX PARTNER**

- Good control of troublesome weeds including:
  - Waterhemp, Common Lambsquarters, Velvetleaf, Morningglory, Kochia, Nightshades, Pigweeds, Jimsonweed, and others

- Enhances the broadleaf control of glyphosate

- Labeled for corn and soybeans - Eliminates tank cleanout and contamination issues when spraying both crops

- No drift concerns and not persistent in soil

- No antagonism with glyphosate or other postemergence herbicides

- Excellent tank-mix partner with atrazine, dicamba products, Callisto™ and Impact®, to improve herbicide program performance

- Great companion to manage herbicide resistance in weeds
Learn More About Cadet Herbicide

To find out how Cadet can strengthen your postemergence weed management program, contact your FMC Star Retailer today or visit www.fmccrop.com.