

Reg # 241-361

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PROPOSED DETAIL LABEL

DETAIL™  
herbicide

FEB -7 1992  
241-361

FOR USE IN SOYBEANS

ACTIVE INGREDIENTS:

Imazaquin: 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-quinolinecarboxylic acid.....	5.4%
Dimethenamid: 2-chloro-N-[(1-methyl-2-methoxy)ethyl]-N-(2,4-dimethyl-thien-3-yl)-acetamide.....	38.9%

INERT INGREDIENTS:\*..... 55.7%

TOTAL..... 100.0%

\*Contains Petroleum Distillates

DETAIL contains 4.1 pounds of active ingredients per gallon  
(3.6 pounds ai of dimethenamid and 0.5 pounds ai of imazaquin)

EPA Reg. No. 241-

EPA Est. No.

**DANGER/PELIGRO!**  
**KEEP OUT OF REACH OF CHILDREN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

In case of an emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.

STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES,** hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**IF ON SKIN,** wash with plenty of soap and water. Get medical attention if skin irritation persists.

**IF SWALLOWED; DO NOT** induce vomiting. Call a physician or Poison Control Center immediately.

**IF INHALED;** remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. Get medical attention.

**NOTE TO PHYSICIAN** Because of increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under professional supervision.

See Additional Precautionary Statements Inside

*PROPOSED DETAIL LABEL*

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**AMERICAN CYANAMID COMPANY  
AGRICULTURAL PRODUCTS DIVISION  
CROP PROTECTION CHEMICALS DEPARTMENT  
WAYNE, NJ 07470 ©1994**

Net Contents:

<sup>TM</sup> Trademark of American Cyanamid Company

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**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**DANGER!/PELIGRO!**

**Corrosive:** Causes irreversible eye damage and skin burns. DO NOT get in eyes, on skin, or on clothing. May be fatal if swallowed, inhaled or absorbed through the skin. DO NOT breathe vapors or spray mist. May cause skin sensitization reactions in certain individuals.

**Personal Protective Equipment (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions of category F on an EPA chemical resistance category selection chart.

**Applicators and other handlers must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber  $\geq 14$  mils or Nitrile Rubber  $\geq 14$  mils or Viton  $\geq 14$  mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering controls statements:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:  
Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT apply when weather conditions (gusty winds, high temperatures, low humidity, and when a temperature inversion exists) favor drift from treated areas. DO NOT contaminate water by disposal of equipment washwaters.

Dimethenamid, an active ingredient in DETAH, has properties that may result in groundwater contamination. Application in areas where soils are permeable or coarse and groundwater is near the surface could result in groundwater contamination.

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Dimethenamid has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This labeling must be in the possession of the user at the time of pesticide application.

Observe all cautions and limitations in this leaflet and on the labels of products used in combination with DETAIL.

DO NOT use DETAIL other than in accordance with the instructions set forth on this label. The use of DETAIL not consistent with this label may result in injury to crops, animals, or persons

Keep containers closed to avoid spills and contamination.

DO NOT apply this product through any type of irrigation system

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber  $\geq 14$  mils or Nitrile Rubber  $\geq 14$  mils or Viton  $\geq 14$  mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

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STORAGE AND DISPOSAL

**STORAGE:** KEEP FROM FREEZING. DO NOT STORE BELOW 32°F.

DO NOT contaminate water, food, or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

DISCLAIMER

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, herbicide resistant weed populations, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above. CYANAMID DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

BUYER'S EXCLUSIVE REMEDY AND AMERICAN CYANAMID'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF DETAIL. In no case shall Cyanamid or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.

USES WITH OTHER PRODUCTS (TANK MIXES)

If this product is used in combination with any other product except as specifically recommended in writing by American Cyanamid Company then American Cyanamid Company shall have no liability for any loss, damage, or injury arising out of its use in any such combination not so specifically recommended. If used in a combination recommended by American Cyanamid Company, the liability of American Cyanamid Company shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the American Cyanamid Company product in such combination use, and in any event shall be limited to return of the amount of the purchase price of the product.

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**GENERAL INFORMATION**

DETAIL may be applied preplant incorporated, preplant surface, preemergence surface or early postemergence in soybeans for control of a broad-spectrum of grass, sedge and broadleaf weeds.

When DETAIL is applied to the soil some susceptible weeds emerge, growth stops, and then the weeds either die or are not competitive with the crop.

The dual mode of weed killing activity includes uptake of DETAIL by weed roots and rapid translocation to growing points. Therefore, adequate soil moisture is important for optimum DETAIL activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is normally adequate. If adequate moisture is not received within 7 days after treatment, then a timely cultivation or postemergence herbicide application may be needed to improve weed control. Cultivation should be shallow. When adequate moisture is received after dry conditions, DETAIL will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

A soil treatment of DETAIL followed by a postemergence application of SCEPTER<sup>®</sup> O I<sup>®</sup> or Classic<sup>4</sup> will control certain problem weeds. Use sequential treatments in recommended states only. Refer to the WEEDS CONTROLLED section for specific sequential application recommendations.

Occasionally, internode shortening of soybean plants may be observed with DETAIL applications. This has no effect on soybean yields.

Following the use of this product and chemically related products with the same mode of action, naturally occurring biotypes\* of some of the weeds listed on this label cannot be effectively controlled by this and related products. This product should be tank-mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control of resistant biotypes.

- \* A weed biotype is a naturally occurring individual within a given species that has a slightly different, but distinct genetic makeup from other individuals.

See your Cyanamid representative for additional information.

**PRECAUTIONS:**

DO NOT use DETAIL other than in accordance with the instructions set forth on this label.

DO NOT use DETAIL in any tank mixes other than those specifically provided in this label.

DO NOT use on crops other than soybeans. Crops other than soybeans, such as cotton, corn and vegetables, may be injured by spray drift or other indirect contact with DETAIL.

To avoid injury to sensitive crops from spray drift, follow all use directions and precautions in the SPRAYING INSTRUCTIONS section of this label.

To avoid injury to sensitive crops, spray equipment used for DETAIL applications must be drained and thoroughly cleaned with water before being used to apply other products to these crops.

Apply DETAIL prior to July 1 in Use Region 3, as defined in the USE AREA section of this label.

There must be an interval of at least 90 days between the DETAIL application and soybean harvest.

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DO NOT graze or feed treated soybean forage, hay or straw to livestock.

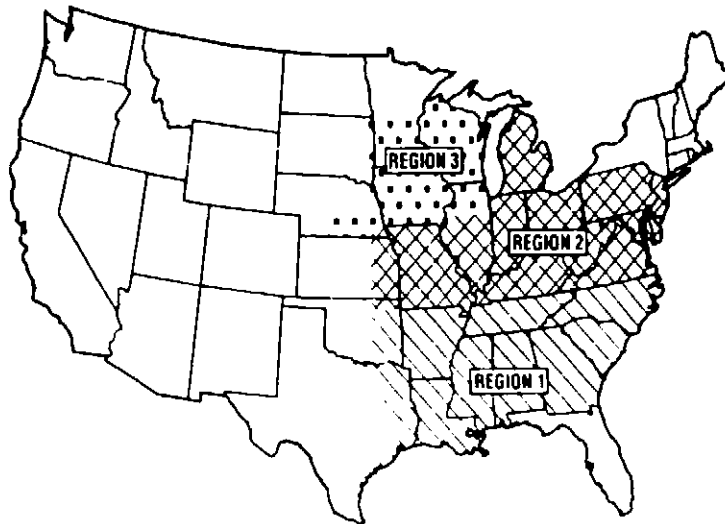
Use of DETAIL herbicide in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, crop injury, is always possible. For more information refer to the ROTATIONAL CROP RESTRICTIONS section of this label.

Replanting: If replanting is necessary in a field previously treated with DETAIL the field may be replanted to soybeans. Rework the soil no deeper than the treated zone. DO NOT apply a second treatment of DETAIL.



USE AREA

DETAIL can be applied only in the states or parts of states shaded in the following map:



The use area for DETAIL is defined by the following USE REGIONS and can be applied only in the states or parts of states listed below

**USE REGION 1** includes eastern Oklahoma, Arkansas, the Missouri bootheel, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, and eastern Texas

**USE REGION 2** includes eastern Kansas (east of U.S. 81, the counties of Cloud, Ellsworth, Harvey, Jewell, Lincoln, Mitchell, McPherson, Ottawa, Republic, Saline, Sedgewick, and Sumner), southeastern Nebraska (east of U.S. 81, south of U.S. 34), Missouri, Illinois (south of S.R. 116 west of Peoria, south of U.S. 24 east of Peoria), Indiana, Ohio, Michigan, Kentucky, Virginia, West Virginia, Pennsylvania, Maryland, Delaware, and New Jersey

**USE REGION 3** includes Nebraska (east of U.S. 81, north of U.S. 34 and also that area east of U.S. 283, south of U.S. 30, and west of U.S. 81), South Dakota (east of U.S. 81), Illinois (north of S.R. 116 west of Peoria, north of U.S. 24 east of Peoria), Wisconsin, Iowa, and Minnesota (south of S.R. 210)

Note See ROTATIONAL CROP RESTRICTIONS section for recommendations applying to each Use Region

**DIRECTIONS FOR CONVENTIONAL, MINIMUM, AND NO-TILL APPLICATIONS**

**APPLICATION RATE**

Apply **DETAIL** at 1.0 quart (32 fluid ounces) per acre.

**APPLICATION INSTRUCTIONS**

DETAIL may be applied in conventional, minimum, or no-till soybeans as a preplant or preemergence surface application or preplant incorporated application. Surface applications of DETAIL may also be applied during planting or early postemergence to soybeans (up to unifoliate stage) but before weeds emerge.

DO NOT apply DETAIL to coarse soil classified as sand with less than 3% organic matter (as determined by soil tests, if not known) and where depth to ground water is 50 feet or less.

Adequate moisture is required for activation of DETAIL.

**PREPLANT, PREEMERGENCE AND EARLY POSTEMERGENCE SURFACE APPLICATIONS (including no-till)**

Apply DETAIL up to 30 days before, during or after planting up to the unifoliate stage of soybeans. DETAIL may be applied early postemergence to soybeans (up to unifoliate stage) but must be applied before weeds emerge. As with other herbicides applied preemergence, rainfall or irrigation is necessary to activate DETAIL in the soil. If sufficient rainfall or irrigation to activate DETAIL is not received within 7 days after application, a thorough shallow tillage, cultivation, or postemergence herbicide treatment (as appropriate to the tillage system) may be required for control of emerged weeds.

For no-till uses, DETAIL may be applied prior to, in tank mix with or following use of either Gramoxone Extra, glyphosate (Roundup), 2,4-D, or 2,4-DB to kill existing vegetation. These tank mixtures must not be applied postemergence to the soybeans or severe crop injury will occur. Gramoxone Extra, Roundup, 2,4-D or 2,4-DB should be deleted from the tank mixture if vegetation is absent at the time of application. Use a minimum of 10 gallons of water per acre. Use higher gallonage for fields with dense vegetation or heavy crop residues. Plant soybeans at least one inch deep and adjust planters to ensure adequate seed coverage. Refer to the Herbicide Combinations section for more information on tank mixing DETAIL with these herbicides.

**PREPLANT INCORPORATED APPLICATIONS**

Apply DETAIL up to 14 days before planting and incorporate uniformly into the top 1 to 2 inches of soil. Avoid deeper incorporation or reduced weed control and/or crop injury may result. Incorporate within 7 days after application.

If soybeans are planted on beds, apply and incorporate after bed formation using PTO-driven equipment or rolling cultivator.

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WEEDS CONTROLLED

When applied as directed, treatments of DETAIL will control or suppress the following broadleaf grass and sedge weeds:

WEED	LEVEL OF CONTROL
<b>BROADLEAF WEEDS</b>	
Alligatorweed	Control
Beggarweed, Florida	Control <sup>1</sup>
Bristly Starbur	Control
Carpetweed	Control
Burcucumber	Control <sup>2</sup>
Cocklebur, Common	Control
Copperleaf, Hophornbeam	Control <sup>3</sup>
Jimsonweed	Control
Lambsquarters, Common	Control
Mallow, Venice	Control
Mexicanweed	Suppression
Morningglory	
Entireleaf	Control <sup>4</sup>
Ivyleaf	Control <sup>4</sup>
Palmleaf	Control
Pitted	Control
Smallflower	Control
Tall	Control <sup>4</sup>
Mustard species	Control
Nightshade	
Black	Control <sup>5,6</sup>
Eastern Black	Control
Hairy	Control <sup>5,6</sup>
Pigweed	
Palmer	Control
Prostrate	Control
Redroot	Control
Smooth	Control
Spiny	Control
Tumble	Control
Waterhemp, Tall	Control
Poinsettia, Wild	Control
Puncturevine	Control
Purslane, Common	Control
Pusley, Florida	Control
Ragweed,	
Common	Control
Giant	Control <sup>5</sup>
Redweed	Control <sup>2</sup>
Sesbana, Hemp	Control <sup>5</sup>
Sicklepod	Control <sup>7</sup>
Sida, Prickly (teaweed)	Control

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Smartweed,	
Ladysthumb	Control
Pennsylvania	Control
Spurge	
Nodding	Control
Spotted	Control
Sunflower, Common	Control
Texasweed	Suppression
Velvetleaf	Control <sup>8</sup>

**GRASSES**

Barnyardgrass	Control
Corn, Volunteer	Suppression <sup>9</sup>
Crabgrass	
Large	Control
Smooth	Control
Cupgrass, Southwestern	Control
Foxtail	
Giant	Control
Green	Control
Yellow	Control
Goosegrass	Control
Johnsongrass, seedling	Control
Panicum	
Fall	Control
Texas	Suppression
Red rice	Control <sup>5,6,8</sup>
Shattercane	Suppression
Signalgrass, Broadleaf	Control
Witchgrass	Control

**SEDGES**

Nutsedge, Yellow	Control <sup>5,6,8</sup>
Flatsedge, Rice	Control

<sup>1</sup> A soil application of DE FAL will provide suppression of Florida beggarweed. A postemergence application of Classic must be applied at 1.2 to 3.4 ounces per acre following a soil application of DE FAL in a planned sequential program to control this weed. Apply the higher rate of Classic if weed seedlings are taller than 2 inches. Apply Classic before weeds exceed the 1 to 2 true leaf stage. Refer to the ROTATIONAL CROP RESTRICTIONS section of this label for instructions on planting follow crops when using the program DE FAL followed by Classic sequential program may be used only in Use Region 1 (except Oklahoma).

<sup>2</sup> To obtain consistent control or suppression of these weeds under a wide range of environmental conditions, a preplant incorporated application is required.

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<sup>3</sup> USE REGION 1 and USE REGION 2 SCEPTER O.T. herbicide must be applied postemergence at 1 pint per acre following a soil application of DETAIL for control of these weeds. The total amount of SCEPTER O.T. applied should not exceed 1 pint per acre in Use Region 2 or 2 pints per acre in Use Region 1 in one season when following a soil application of DETAIL. Refer to the SCEPTER O.T. label for application instructions. In Use Region 2, refer to the Rotational Crop Restrictions section of this label for special instructions on planting follow crops when using this program.

<sup>4</sup> A soil application of DETAIL at the recommended rate will provide suppression of these weeds. For control of these morningglory species, the sequential program in footnote #3 should be used.

<sup>5</sup> May require a cultivation or postemergence herbicide application for season long control.

<sup>6</sup> For best control of these weed species refer to the DETAIL Plus Frontier Herbicide Tank Mixture section.

<sup>7</sup> Only light to moderate infestations of sicklepod are controlled. Later sicklepod flushes may require a cultivation or a postemergence herbicide application. For heavy sicklepod infestation, Classic may be applied postemergence at 1.2 to 3.4 ounces per acre following a soil application of DETAIL. Apply the higher rate of Classic if sicklepod seedlings are taller than 2 inches. A cultivation 14 days after Classic application may be required to control sicklepod escapes. Refer to the ROTATIONAL CROP RESTRICTIONS section of this label for instructions on planting follow crops when using this program. DETAIL followed by Classic sequential program may be used only in Use Region 1 (except Oklahoma).

<sup>8</sup> A preplant incorporated application is recommended for control of red rice, yellow nutsedge and velvetleaf. A preemergence application of DETAIL will aid in the control and reduce competition from these weeds.

<sup>9</sup> A soil application of DETAIL will suppress only those field corn hybrids which DO NOT possess tolerance or resistance to DETAIL or other imidazolinone herbicides (i.e. PURSUIT<sup>®</sup>).

**HERBICIDE COMBINATIONS**

When used in combination with another herbicide, DETAIL should be used only in accordance with recommendations on this label. Always follow the more restrictive label limitations and precautions. DETAIL cannot be mixed with any product containing a label prohibition against such mixing.

In addition to those broadleaf herbicides specifically mentioned elsewhere in this label, DETAIL applications may be followed by one or more of the following herbicides, Basagran<sup>5</sup>, Blazer<sup>5</sup>, Galaxy<sup>5</sup>, Storm<sup>5</sup>, Cobra<sup>6</sup>, or Reflex<sup>7</sup>.

DETAIL may be followed by herbicides registered for postemergence grass control in soybeans.

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**Tank Mixtures With Frontier**

DETAIL can be tank mixed with Frontier herbicide if heavy or difficult to control infestations of weeds including black and hairy nightshade, red rice, or yellow nutsedge are anticipated.

The Frontier use rate to be tank mixed with DETAIL varies by soil type. The most accurate indicator of appropriate use rate for Frontier is the Cation Exchange Capacity (CEC) of the soil to be treated. CEC values are available in standard soil testing procedures. If CEC values are not available, the recommended use rate of Frontier may be determined using the soil texture and organic matter. The recommended use rate of Frontier may be determined using the soil texture chart below.

COARSE	MEDIUM	FINE
Sand Loamy Sand Sandy Loam	Silt Silt Loam Loam Sandy Clay Loam	Sandy Clay Silty Clay Silty Clay Loam Clay Loam Clay

When use rates are expressed in ranges use the lower end of the rate range for lower CEC values and use the higher end of the rate range for higher CEC values. If texture and organic matter are used to determine use rates, use the lower end of the rate range for more coarsely textured soils low in organic matter and the higher end of the rate range for more finely textured soils that are high in organic matter.

Recommended use rates for Frontier when tank mixed with DETAIL are given in the following tables. Cation exchange capacity (CEC) of soil is the preferred method for determining use rate. If CEC is not known, select use rate based on soil texture and organic matter content. For early preplant applications and or uses on soils with heavy surface plant residue add 2-4 fluid ounces per acre to the rates given in the following table. DO NOT exceed 9 fluid ounces of Frontier, in the tank mixture, per acre per crop year.

Use rate determined by cation exchange capacity (CEC) of soil.					
Cation Exchange Capacity (CEC) of Soil	< 5*	5-9	10-14	15-20	>20
Frontier Use Rate (Fluid Ounces/Acre)	0	2	2-6	6-8	9
DETAIL Use Rate (Fluid Ounces/Acre)	0	32			

Use rate determined by soil texture and organic matter content.		
	Frontier Use Rate (Fluid Ounces/Acre)	
	Organic Matter	
Soil Texture	Less than 3%	3% or more
Coarse*	0	4
Medium	4	4-8
Fine	2-6	6-9
DETAIL Use Rate (Fluid Ounces/Acre)	32	

\* DO NOT apply Frontier to soils with CEC values less than 5 or to coarse soil classified as sand with less than 3% organic matter (as determined by soil tests, if not known) and where depth to ground water is 30 feet or less.

Observe all precautions and limitations on Frontier label

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**Tank Mixtures With Gramoxone Extra**

Gramoxone Extra, at 1-1/2 to 2-1/2 pints per acre, may be used with DETAIL alone or in combination with other tank mixes for the control of certain emerged grasses and broadleaf weeds. Use the 2-1/2 pint rate if weeds are 4 to 6 inches tall. Weeds over 6 inches may not be controlled with this treatment. Apply up to 14 days before, during or immediately after planting.

When Gramoxone Extra is included in a tank mixture, add a nonionic spreader surfactant at a rate of 8 fl. oz. per 100 gallons of spray mixture as the last ingredient in the tank.

Gramoxone Extra will control most annual emerged weeds and suppress many emerged perennials. Refer to the Gramoxone Extra label for specific use recommendations and weeds controlled.

Observe all precautions and limitations on Gramoxone Extra label.

**Tank Mixtures With Glyphosate (Roundup)**

Roundup may be used with DETAIL alone or in combination with other DETAIL tank mixes for the control of certain emerged grasses and broadleaf weeds. Refer to the Roundup label for specific use recommendations, rates and weeds controlled.

NOTE: The Roundup rate for tank mixes with DETAIL is the same as the rate for Roundup used alone.

Observe all cautions and limitations on the Roundup label.

**Tank Mixtures with 2,4-D**

2,4-D may be used with DETAIL alone or in combination with other DETAIL tank mixes prior to planting for control of some annual broadleaf weeds. Use the following rates of 2,4-D in tank mixtures with DETAIL.

Days 2,4-D Formulation planting	Rate (lb a.i./A)	Minimum Before
Ester	0.5	7
Amine	0.5	15
Ester or Amine	1.0	30

Refer to 2,4-D label for weeds controlled. Observe all cautions and limitations on the 2,4-D label.

**Tank Mixtures With 2,4-DB**

2,4-DB may be used with DETAIL alone or in combination with other DETAIL tank mixes for the control of some annual broadleaf weeds. Refer to the 2,4-DB label for specific use recommendations, rates and weeds controlled.

Observe all cautions and limitations on the 2,4-DB label.

### MIXING INSTRUCTIONS

DETAIL can be mixed for application in water or sprayable liquid fertilizer. Refer to the Applications With Liquid Fertilizers section for specific instructions when tank mixing with liquid fertilizers. The following sequence should be used when preparing a spray tank for an application of DETAIL:

1. Thoroughly clean spray tank prior to use.
2. Fill the spray tank one-fourth to one-half full with clean water or liquid fertilizer.
3. While agitating add the required amount of product in the following sequence:
  - A. Add DETAIL herbicide to spray tank and make sure it is thoroughly mixed.
  - B. If used, add Frontier herbicide.
  - C. If used, add either Gramoxone Extra, Roundup, 2,4-D or 2,4-DB.
  - D. If adding spray adjuvants, add them after all other products have been mixed.
  - E. An antifoaming agent may be added to the tank if needed.
4. Fill the remainder of the tank mixture with water or liquid fertilizer.
5. Maintain agitation while spraying to ensure a uniform spray mixture.

### APPLICATIONS WITH LIQUID FERTILIZERS

DETAIL can be applied to the soil in liquid fertilizers, alone or in combination with Frontier. Follow all DETAIL label recommendations regarding incorporation, timing of application, special instructions and precautions. For other DETAIL tank mix partners, refer to the individual product labels for specific recommendations for using these products with liquid fertilizer. Apply treatments in 20 or more gallons of liquid fertilizer per acre with ground equipment.

All individual state regulations relating to fluid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company selling the DETAIL liquid fertilizer mixture.

### LIQUID FERTILIZER COMPATIBILITY DETERMINATIONS

If a liquid fertilizer and herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result, which can cause poor weed control and crop injury. Always predetermine the compatibility of DETAIL alone or with Frontier in the specific liquid fertilizer to be used according to the following directions:

1. Add 1 pint fertilizer to each of 2 one-quart jars.
2. Add 1/2 teaspoon of adjuvant to one jar. See recommended adjuvants below.

**NOTE:** Complex-Kalo Laboratories Incorporated, Kansas City, MO; Sponzo 168 D-Witco-Retzloff Chemical Company, Houston, TX; Unite-Hopkins Agricultural Chemical Company, Madison, WI, or other compatible adjuvants.

3. (a) When using DETAIL alone, add to each jar the correct amount of DETAIL as specified in the table below.
- (b) When using DETAIL tank mixtures, first add the specified quantity of DETAIL, and then add the correct amount of Frontier.



**PROPOSED DETAIL LABEL**

4. Close both jars and shake thoroughly for 10 seconds. Let them stand for 30 minutes and then observe the results. Look for signs of separation, an oily layer of globules, sludge, flakes or other precipitates.
  - (a) If the mixture without adjuvant does not separate, use this mixture in your spray tank.
  - (b) If the mixture with adjuvant does not separate, but the one without adjuvant separates, use the adjuvant mixture in your spray tank. Add the adjuvant to the liquid fertilizer as directed on the manufacturer's label.
  - (c) If either mixture separates, but mixes readily with shaking, the mixture can be used providing good agitation is maintained in the spray tank.
  - (d) If separation of the mixture occurs and agitation and/or adjuvant does not correct this problem, DO NOT use the herbicide(s) in that specific liquid fertilizer.

Teaspoons of Specific Herbicide to be added to 1 Pint of Liquid Fertilizer Solution		
Gallons of Liquid Fertilizer to be Applied per Acre	DETAIL 32 fl. oz. A	Frontier 9 fl. oz. A
20	1.14	1.3
30	3.4	1.4
40	1.2	1.5

**APPLICATIONS WITH DRY BULK FERTILIZERS**

DETAIL may be impregnated on dry bulk fertilizers. When applied as directed, DETAIL dry bulk fertilizer mixtures provide weed control equal to that provided by the same rates of DETAIL applied in water.

Apply DETAIL dry bulk fertilizer mixtures only with ground equipment.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling the DETAIL dry bulk fertilizer mixture.

A minimum of 200 pounds and a maximum of 450 pounds of dry bulk fertilizer impregnated with the recommended amount of DETAIL must be applied per acre.

DO NOT impregnate DETAIL onto ammonium nitrate, potassium nitrate, sodium nitrate or limestone based fertilizers or fertilizer blends.

**PROPOSED DETAIL LABEL**

Use the following table to determine the amount of DETAIL to be impregnated on a ton of dry bulk fertilizer based on the rate of fertilizer which will be applied per acre.

**RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZER WITH DETAIL**

(Ounces of DETAIL per Ton of Fertilizer)

DETAIL Rate Per Acre	Fertilizer Rate lbs/acre	Fluid Ounces per Ton
32 fl. ounces	200	320
	250	256
	300	213
	350	183
	400	160
	450	142

For those rates not listed in this table, calculate the ounces of DETAIL to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds of dry fertilizer per acre}} \times \frac{32 \text{ ounces of DETAIL per acre (recommended rate)}}{\text{Ounces DETAIL per ton of fertilizer}}$$

To impregnate DETAIL on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Spray nozzles must be placed to provide uniform coverage of DETAIL onto the fertilizer during mixing.

Apply the DETAIL dry bulk fertilizer mixture with an accurately calibrated dry fertilizer spreader. The DETAIL dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading can cause poor weed control and crop injury.