



United States
Environmental Protection Agency

Washington, DC 20460

Registration
Amendment
☒ Other

OPP Identifier Number

247562

Application for Pesticide - Section I

1. Company/Product Number BASF 7969-148	2. EPA Product Manager Phil Errico	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) OPTILL Herbicides (SAN1412 H)	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) BASF Corporation Agricultural Products P.O. Box 13528 Research Triangle Park, NC 13528-3528 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)
Notification of change in address. Stamped approved labeling requested to facilitate state registration.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
				<input checked="" type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted					
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1, 2.5, 15, 30, Gallon Bulk		5. Location of Label Directions <input type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other plastic sleeve			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Jonathan E. Bryant, Ph.D.	Title Manager, Reg. Affairs	Telephone No. (Include Area Code) (919) 547-2978
<p>Certification</p> <p>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.</p>		<p>6. Date Application Received (Stamped)</p>
2. Signature 	3. Title Manager, Regulatory Affairs	
4. Typed Name Jonathan E. Bryant, Ph.D.	5. Date April 2, 1997	

OPTILL™ Herbicide
FOR WEED CONTROL IN FIELD CORN

ACTIVE INGREDIENTS:

Dimethenamid: 2-chloro-N-[(1-methyl-2-methoxy)ethyl]-N-(2,4-dimethyl-thien-3-yl)-acetamide.....	53.41%
Dicamba: 3,6-dichloro-o-anisic acid.....	10.67%
INERT INGREDIENTS*.....	35.92%
TOTAL	100.00%

This product contains 5.0 lb dimethenamid per gallon and 1.0 lb dicamba acid per gallon.

*Contains petroleum distillates, xylene or xylene range aromatic solvent

SHAKE WELL BEFORE USING

KEEP OUT OF REACH OF CHILDREN
DAÑERO/PELIGRO

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

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 Swallowed:** Call a doctor and get medical attention. Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Do not give anything by mouth to an unconscious person.
- If on Skin:** Wash with plenty of soap and water. Get medical attention.
- If Inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

See next page for additional Precautionary Statements

EPA Reg. No.: 7969-148
EPA Est. No.:

Net Contents

BASF

BASF Corporation
Research Triangle Park, NC 27709

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND ANIMALS**

DANGER PELIGRO

Corrosive. Causes irreversible eye damage. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. Harmful if absorbed through skin. Causes skin irritation, avoid contact with skin. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton
- Shoes plus socks
- Protective eyewear

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. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Engineering Controls Statement

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

Dimethenamid 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.

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.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

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, 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 48 hours.

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 plant, soil or water is:

Coveralls

Chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton

Shoes plus socks

Protective eyewear

Do not apply this product through any type of irrigation system.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or by disposal.

Storage: Store unused product in original container in a well-ventilated area separately from fertilizer, feed and foodstuffs. Avoid cross-contamination with other pesticides. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.

Pesticidal 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.

Plastic Container Disposal: After triple rinsing (or equivalent), offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, incineration, or by other procedures approved by state and local authorities, such as burning of plastic containers. If burned, stay out of smoke.

Bulk Storage and Disposal

Agitate before use.

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes.

Storage: Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Heated storage is required in bulk systems and recommended in mini-bulk systems.

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.

Bulk Tank Maintenance: Follow clean-out direction in the Dealer Bulk Handling Guide for OPTILL Herbicide listed under Bulk Storage Tank Requirements.

General: Consult federal, state, or local disposal authorities for approved alternative procedures, such as limited burning.

IMPORTANT: Read the Limited Warranty and Liability and all applicable *Directions for Use* in this booklet before using this product.

GENERAL INFORMATION

OPTILL™ Herbicide (OPTILL) is designed to provide preemergence control of most annual grasses, burndown control of emerged annual broadleaf weeds, and growth suppression of many emerged perennial broadleaf weeds in reduced tillage production systems of field corn. OPTILL is recommended for preplant surface, preemergence or early postemergence treatments in field corn. OPTILL application may be made using either water or fluid fertilizer as the spray carrier. Sprayable fluid fertilizer when used as a carrier after crop emergence may cause crop injury.

Unless otherwise directed by registered supplemental labeling, follow the Directions for Use in each crop group section.

Observe all precautionary statements and limitations on labeling of all products used in tank mixtures. Tank mix recommendations are for use only in states and on application sites where the tank mix product is registered.

Applications of OPTILL may not exceed a total of 38 fluid ounces per acre (fl oz/A) in one crop year.

Recommended use rates of this product vary by soil type. The most accurate indicator of appropriate use rate for OPTILL 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 OPTILL may be determined using the soil texture and organic matter. Soil texture groupings used in this label are coarse, medium and fine. Soil textures included in these groupings are as follows:

COARSE	MEDIUM	FINE
Sand ¹ Loamy Sand Sandy Loam	Silt Silt Loam Loam Sandy Clay Loam	Sandy Clay Silty Clay Silty Clay Loam Clay Loam Clay

¹Do not apply to coarse soil classified as sand with less than 3% organic matter (as determined by soil tests, if not known) and where depth to groundwater is 30 feet or less.

OPTILL use rates, by either soil CEC values or by soil texture and organic matter, are given in specific crop use sections of this label. 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 coarse textured soils low in organic matter and the higher end of the rate range for fine textured soils high in organic matter.

WEEDS CONTROLLED

OPTILL applied at the recommended rates and application timings will control many annual grass and broadleaf weeds.

Annual Grasses

Barnyardgrass

Crabgrass,**

Smooth

Large

Cupgrass, Southwestern

Foxtail,

Giant

Green

Yellow

Goosegrass

Johnsongrass (seedling)*

Panicum, Fall**

Red Rice

Signalgrass, Broadleaf

Witchgrass

Sedge

Flatsedge, Rice

Nutsedge, Yellow*

*For best control of these species use the highest recommended rate by soil type. If dry conditions exist near application or excessive rainfall occurs early in season, a postemergence herbicide and/or cultivation may be required to aid in control of these weeds.

**These grasses often have extended periods of germination and may require a postemergence herbicide and/or cultivation to control later emerging weeds.

Broadleaf weeds (burndown)

Buckwheat, Wild

Burclover, California

Burcucumber

Carpetweed*

Chickweed, Common

Clovers (Annual)

Cocklebur, Common

Jimsonweed

Knotweed

Kochia

Kochia (triazine or ALS resistant)

Ladysthumb

Lambsquarters, Common
 Lambsquarters, Common (triazine resistant)
 Mallow, Common
 Maretail (Horseweed)
 Mallow, Venice
 Morningglory, Tall
 Morningglory, Ivyleaf
 Mustard, Wild
 Mustard, Tansy
 Pennycress, Field
 Nightshade, Black⁺
 Mustard (Yellowtops)
 Pigweed, Redroot(Carelessweed)⁺
 Pigweed, Prostrate⁺
 Pigweed, Rough
 Pigweed, Smooth⁺
 Pigweed (triazine resistant)
 Pigweed, Tumble⁺
 Puncturevine
 Purslane, Common⁺
 Ragweed, Common
 Ragweed, Giant (Buffaloweed)
 Ragweed Lance-Leaf
 Sicklepod
 Sida, Prickly (Teaweed)
 Smartweed, Green
 Smartweed, Pennsylvania
 Spikeweed, Common
 Spanish Needles
 Spurge, Prostrate
 Sunflower, Common (Wild)
 Sunflower, Volunteer
 Thistle, Russian
 Velvetleaf
 Waterhemp⁺
 Waterhemp⁺ (ALS resistant)

OPTILL provides residual control of annual grasses and contact control of annual broadleaf weeds. SAN 1412 will provide residual control of those broadleaf weeds indicated (*). For broad spectrum broadleaf weed control, OPTILL should be used in sequential applications or tank mixtures with other herbicides that provide additional control.

OPTILL will provide growth suppression of many emerged perennial broadleaf weeds such as Curly Dock, Hemp Dogbane, Alfalfa, Red Clover, and Field Bindweed.

Use In Field Corn

USE METHODS AND TIMINGS

OPTILL may be applied preplant surface, preemergence or early postemergence (up to 8 inch tall) to field corn.

Field corn may be grazed or fed to livestock at 40 or more days after application of OPTILL.

Limited Tillage

Use in minimum tillage or no-tillage production systems for residual control of annual grasses and contact control of annual broadleaf weeds. Application of OPTILL alone or in tank mixtures may be made up to 30 days before planting, during planting, or following planting. When making early preplant applications (15 to 30 days prior to planting) use the highest rate recommended for the specific soil type.

Early preplant applications are not recommended for use on coarse textured soils or in areas where average annual rainfall (or rainfall + irrigation) typically exceeds 40 inches. Applications on coarse textured soils made within 7 days of planting may result in temporary crop injury. Crop recovery should occur within 7 to 14 days. Tank mixtures with postemergence herbicides such as Roundup® Ultra, Touchdown®, or Gramoxone® Extra must be used when grass weeds are present at the time of application.

Adjust planter to ensure complete soil coverage of the corn seed at planting.

When planting into a legume sod (e.g., alfalfa or clover), or for added control of dandelion or plantain, 2,4-D at 1/4 to 1/2 pounds ai/A may be tank mixed with OPTILL.

Conventional Tillage

Broadcast treatment uniformly to the soil surface after planting and before crop emergence. Rainfall or sprinkler irrigation after application is required to move this product into the upper soil surface where weed seeds germinate. If adequate rainfall or irrigation does not occur and weed seedling emergence begins, a shallow cultivation or rotary hoeing will improve performance. This application should only be made on medium or fine textured soils which contain 2 1/2% or greater organic matter and/or CEC of 15 or greater.

EARLY POSTEMERGENCE APPLICATIONS: All tillage systems

OPTILL may be used in early postemergence (spike up to 8 inch tall corn). Application must be made prior to grass seedling emergence or in a tank mixture with products that control emerged grasses.

Note restrictions and use directions on tank mix product labels.

USE RATES IN FIELD FIELD CORN

Recommended broadcast use rates for OPTILL when used in tank mix combinations and/or sequential applications with other herbicides in field corn are given in the following tables¹. 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.

Do not exceed 38 fl oz/A per crop year.

USE RATE DETERMINED BY CATION EXCHANGE CAPACITY (CEC) OF SOIL					
Cation Exchange Capacity (CEC) of Soil		<10	10-14	15-20	> 20
OPTILL Use Rate (fl oz/A)		22-26	26-32	32-36	38

USE RATE DETERMINED BY SOIL TEXTURE AND ORGANIC MATTER CONTENT		
Soil Texture	OPTILL Use Rate (fl oz/A)	
	Organic Matter Content	
	Less than 3%	3% or more ²
Coarse	22-24	24-30
Medium	24-30	30-36
Fine	30-34	34-38

¹ See tank mix descriptions below for the recommended use rate ranges of other herbicides used in combination with OPTILL. Refer to tank mix section of companion product labels for actual use rate by soil type, weed species and weed or crop growth stage.

² On all soils with greater than 8% organic matter, use 38 fl oz/A of OPTILL.

TANK MIXTURES AND SEQUENTIAL USE PROGRAMS IN FIELD CORN

OPTILL may be applied prior to, in tank mix with, or following the use of one or more of the following herbicides: Accent®, atrazine, BANVEL®, Beacon®, Bladex®, CLARITY®, Eradicane®, Extrazine® II, Gramoxone® Extra, MARKSMAN®, Princep®, Prowl®, Pursuit®, Roundup® Ultra, Touchdown®, TOUGH® 3.75 EC, or 2,4-D. OPTILL use rates for sequential or tank mix treatments are presented in the above label section, OPTILL Use Rates in Field Corn.

When using tank mix or sequential applications with OPTILL, always read the companion product label(s) to determine specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow precautions and restrictions including state and local use restrictions that may apply to specific products.

When tank mixed, follow additional use directions given in this table.

OPTILL plus atrazine (0.75 to 2.5 lb ai/A)	Application may be made preplant surface, preemergence or early postemergence (up to 8 inch tall corn). This treatment must be combined with a herbicide that provides postemergence control of grass weeds if they are greater than 1.5 inches tall at the time of application. Crop oil concentrate may be added to this mixture to aid in control of emerged weeds. Do not add crop oil concentrate if this mixture is combined with other herbicides for early postemergence applications or if corn is > 5 inches tall.
OPTILL plus Bladex (1.25 to 3.0 lb ai/A) or Extrazine II (1.25 to 3.0 lb ai/A)	Application may be made preplant surface, or preemergence to field corn. This mixture is not recommended for use on soils with CEC less than 5 or on sand or loamy sand soils with organic matter less than 1%.
OPTILL plus Prowl® 3.3 EC (1.8 to 3.6 pt/A)	Application may be made preemergence to early postemergence (up to 3 inch tall corn) but before grass weeds are greater than 1 inch tall.
OPTILL plus Princep (1.0 to 3.0 lb ai/A)	Application may be made preplant surface, or preemergence to field corn.
OPTILL plus Gramoxone Extra (1.5 to 3.0 pt/A) or Roundup Ultra (glyphosate - 0.5 to 4.0 lb ai/A)	Application may be made preplant surface or preemergence to control emerged grass weeds in minimum or no tillage field corn. Applications must be made prior to corn emergence.
OPTILL plus 2,4-D amine or ester (1/4 to 1/2 lb ai/A)	Application may be made preplant surface or preemergence to improve control of emerged broadleaf weeds in minimum or no-tillage field corn.
OPTILL plus	OPTILL at reduced use rates: 12.0 to 18.0

Accent® 75 SP (1/3 to 2/3 oz/A) or Beacon® 75 WDG (0.76 oz/A)	<p>fl oz /A - on soils with CEC less than 10 (coarse soils or medium and fine textured soils with less than 3% organic matter), or 18.0 to 24.0 fl oz/A - on soils with CEC of 10 or more (medium or fine textured soils with 3% or more organic matter) may be used in these mixtures. Always add non-ionic surfactant at 0.25% v/v, and in addition, if application is made in dry growing conditions, include 2% v/v liquid fertilizer (28, 30 or 32% UAN) with these mixtures. Addition of BANVEL (4.0 to 8.0 fl oz/A), CLARITY (4.0 to 8.0 fl oz/A), or MARKSMAN (1.0 to 2.0 pt/A) to this mixture will improve burndown and residual control of broadleaf weeds.</p> <p>Tank mixes with Accent may be applied from emergence up to 8 inch tall corn when weeds are emerged and actively growing. Reduced rates (1/3 oz/A) of Accent may be used in this mixture for control of foxtail, barnyardgrass, fall panicum or seedling Johnsongrass when all are less than 3 inches tall.</p> <p>Tank mixes with Beacon may be applied when corn is 4 to 8 inches tall and weeds are emerged and actively growing. Use this tank mix only where Beacon is labeled for control of emerged grass species that are present.</p>
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MIXING AND APPLICATION DIRECTIONS

BEST STEWARDSHIP PRACTICES

OPTILL provides effective preemergent grass weed control and broadleaf burndown in field corn when properly applied. Best stewardship practices in all mixing, loading, and application operations not only maximize weed control, but also protect ground and surface waters and minimize off-target movement.

GROUND AND SURFACE WATERS PROTECTION

1) Point source contamination - To prevent point source contamination, do not mix or load this or any other pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills, or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or antisiphoning devices must be used on all mixing equipment.

2) Movement dissolved in runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen soils.

Groundwater contamination may occur in areas where soils are permeable or coarse and groundwater is near the surface. To minimize the possibility of groundwater contamination, carefully follow application rate recommendations as affected by soil type in the general information section of this label. Do not apply to coarse soils classified as sand with less than 3% organic matter (as determined by soil tests, if not known) and where depth to groundwater is 30 feet or less.

3) Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall before using tailwater for subsequent irrigation of other fields.

NON-TARGET AREA PROTECTION

1) Spray Drift - High or gusty winds, high temperatures, low humidity and temperature inversions increase the likelihood of spray drift from intended targets. Do not apply when these conditions exist. To minimize spray drift:

- Make application when conditions are favorable for even spray deposition (approximately 3-10 mph) on the soil surface. Do not apply when wind or wind gusts exceed 15 mph.
- Use as low pressure, properly calibrated, application equipment as possible to produce large spray droplets and sufficient spray volume to ensure adequate coverage. Do not use nozzles producing a mist droplet spray.
- Keep ground driven spray boom as low as possible above the target surface.

2) Wind erosion of treated soil - Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

MIXING OF SPRAY SOLUTIONS

OPTILL is a concentrated liquid herbicide that can be mixed for application in water or sprayable fluid fertilizer. When herbicide tank mixtures or mixtures with sprayable fluid fertilizer are to be used, a compatibility test should be conducted prior to tank mixing (see COMPATIBILITY TEST section in this label).

When loading a spray tank for application of OPTILL (alone or in tank mixtures with other products) use the following order for mixing:

1. Thoroughly clean spray tank prior to use.
2. Fill sprayer tank one-half full of either water or sprayable fluid fertilizer.
3. Start sprayer agitation system and continue agitating throughout mixing and application.
4. If compatibility test indicated the need for addition of a compatibility agent, add the amount recommended on the label of the selected compatibility agent.
5. If tank mixing with wettable powder or dry flowable products, make a slurry of these products with water and add slowly to spray tank.
6. If tank mixing with a flowable formulation, add this product slowly to spray tank.
7. Add OPTILL to spray tank.
8. If tank mixing with emulsifiable concentrates or soluble liquid products add these products to spray tank.
9. If tank mixing with Gramoxone Extra or Roundup add these products as remainder of spray tank is filled with carrier.
10. If adding spray adjuvants, add them after all other products have been mixed.

PROCEDURE FOR CLEANING SPRAY EQUIPMENT:

Before preparing spray mixture, be sure all equipment is clean to prevent uneven applications, clogged nozzles, or crop injury. Thoroughly clean equipment following applications of OPTILL.

The steps listed below are suggested for thorough cleaning of spray equipment following applications of OPTILL or tank mixes of OPTILL.

1. Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Preferably, inside surfaces should be rinsed using a multi-directional nozzle such as Spray Systems Tank Rinsing Nozzle 27500E-TEF®. Flush by operating sprayer until the system is purged of all rinse water.
2. Fill tank with water while adding a commercially available tank cleaning agent such as Nutra-Sol®, Incide-out® or Loveland Tank and Equipment Cleaner®. Carefully read and follow tank cleaning agent label directions. Operate the pump to circulate the cleaning solution through the sprayer system for 15 to 20 minutes and discharge a small amount through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Completely flush the cleaning solution out of the spray tank.
4. Remove nozzles and screens. Fill tank with clean water and circulate through the sprayer system for 15 to 20 minutes. Discharge a small amount through boom lines.
5. Completely flush rinse water out of the spray tank.

GROUND OR AERIAL APPLICATIONS

Apply the recommended rates of OPTILL in 2 or more gallons of spray solution per acre. Actual minimum spray volume per acre is determined by spray equipment used for application. Application must be made in adequate volume to provide accurate and uniform distribution of spray particles over treated area and to avoid drift of spray particles to non-target areas. In addition, when OPTILL is used in tank mixtures, spray volume used must be no less than the minimum volume required by the tank mix product. Use nozzle screens no finer than 50 mesh when spraying tank mixtures with wettable powder or flowable formulations.

OPTILL may be applied as a band treatment. Use rates within the treated area of the band must not exceed the use rates given for broadcast application. Use the formula below to determine the appropriate amount of product and volume of carrier needed per acre of field.

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast Rate per acre} = \text{Band Rate per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast Volume per acre} = \text{Band Volume per acre}$$

USE OF SPRAY ADJUVANTS

Surfactants and/or low rate fertilizer (28%, 30% or 32% UAN or ammonium sulfate) adjuvants may be used. Crop oil concentrates may be used prior to crop emergence but are not recommended after crop emergence unless specified for a particular tank mixture. Use only those adjuvants cleared for agricultural crop use.

COMPATIBILITY TESTING

A compatibility test is recommended for applications with liquid fertilizer. Before mixing products in the spray tank, small amounts of all products can be mixed in proportionate quantities to determine compatibilities. The amounts of carrier and products in this compatibility test are based on a spray volume of 25 gallons per acre. Make appropriate changes in amounts for your specific spray volume.

To conduct this test begin by adding one pint of the liquid fertilizer solution to a one quart container. Then add, in sequence as given above, 1/2 level teaspoons per pound use rate for dry formulated products and 1/2 teaspoon per pint (16 fluid ounces) use rate of liquid formulated products. Agitate materials by covering and gently shaking container for 5 to 10 seconds between each product addition.

If herbicide(s) do not ball-up or form flakes, gels, sludge, oily film or layers, or other precipitates, then the tested spray mix is compatible. Incompatibility in any of the above described forms will normally occur within 5 minutes after mixing. If components are incompatible, the use of a compatibility agent is recommended.

Rerun the above compatibility test with a suitable compatibility agent (1/4 teaspoon in test is equivalent to a use rate of 2 pts/100 gallons of spray volume). If the mixture is then compatible, use the compatibility agent as directed on its label. If the mixture is still incompatible, the liquid fertilizer and herbicide(s) should not be mixed for use in the same spray tank.

ROTATIONAL CROPS

If the field corn treated with OPTILL is lost to adverse weather or for other reasons, the area treated may be replanted to field corn or sorghum immediately. If the original OPTILL treatment was broadcast, do not make a second application of OPTILL. If the original application was banded and the second crop is planted in the row middles, a second band application may be applied. Fall seeded cereal crops may be planted at 4 or more months after a spring application of OPTILL. There are no rotational crop restrictions in the spring following the previous year's application of OPTILL.

OPTILL used in tank mixtures: Refer to the labels of tank mix products for additional rotation crop information and restrictions.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. 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, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer.

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