

 **BASF**

The Chemical Company

**Group 2 14 Herbicide**Department of Agriculture
STATE OF HAWAII**Optill**[®]**LICENSED**PERIOD **2015-2017** LIC. NO.**9131.145**Powered by **Kixor**[®] HerbicideDepartment of Agriculture
STATE OF HAWAII**LICENSED**PERIOD **2012-2014** LIC. NO.**For use in the following agricultural crops: chickpea (garbanzo bean), Clearfield[®] corn, dry field pea, English pea, and soybean****Active Ingredients:**

saflufenacil: N'-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-(trifluoromethyl)-3, 6-dihydro-1(2H)-pyrimidinyl)benzoyl]-N-isopropyl-N-methylsulfamide 17.80%

imazethapyr: (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid 50.20%

Other Ingredients: 32.00%**Total:** 100.00%

Contains 0.178 pound active ingredient saflufenacil and 0.502 pound acid equivalent imazethapyr per pound formulated as a water-dispersible granule (WG).

EPA Reg. No. 7969-280**EPA Est. No. 241-PR-002****KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

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.)

See inside for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.**In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).****Net Contents: 5 pounds**

Product of U.S.A.

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709**81047625
NVA 2013-05-323-0261**

FIRST AID

If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• DO NOT induce vomiting unless told to do so by a poison control center or doctor.• DO NOT give any liquid to the person.• DO NOT give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.• Call a poison control center for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.• Call a poison control center or doctor for further treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category A** on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Protective eyewear such as face shield, goggles, or safety glasses
- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves (such as natural rubber, selection **Category A**)

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

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.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for **applicators and other handlers** and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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

For terrestrial uses, **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

Groundwater Advisory. This product has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory. This product may impact surface water due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks after application. A level, well-maintained buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this product will be reduced by avoiding application when rainfall is forecast to occur within 48 hours.

Proper Handling Instructions. This product may not be mixed or loaded within 50 feet of wells (including abandoned wells and drainage wells), sinkholes, 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.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad must be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad.

Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacity **DOES NOT** apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

This product must be used in a manner which will prevent back-siphoning in wells, spills, or improper disposal of excess pesticide spray mixture.

Endangered Species Protection Requirements

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult <http://www.epa.gov/esspp/>, or call 1-800-447-3813 no more than 6 months before using this product.

Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

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 time of herbicide application.

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.

Observe all precautions and limitations in this label and the labels of products used in combination with **Optill® herbicide**. The use of **Optill** not consistent with this label can result in injury to crops, animals or persons. Keep containers closed to avoid spills and contamination.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application in crops.

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
- Chemical-resistant gloves, such as natural rubber \geq 14 mils
- Shoes plus socks
- Protective eyewear

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

DO NOT use or store near heat or open flame. Store in original container in a well-ventilated area separately from fertilizer, feed, or foodstuffs and away from other pesticides. Avoid cross-contamination with other pesticides. Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal

Wastes resulting from this product may be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity \leq 50 pounds) as follows:

Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

(continued)

STORAGE AND DISPOSAL

(continued)

Container Handling *(continued)*

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Optill® herbicide provides both contact burndown and residual preemergence broadleaf and grass weed control (refer to **Table 1** and **Table 2** for lists of weeds controlled dependent on application rate). It can be used in **Clearfield®** corn and specified legume vegetable crops including: chickpea (garbanzo bean), dry field peas, English peas, and soybean. Refer to **Crop-specific Information** section for recommendations on herbicide tank mixtures or sequential programs.

Make burndown applications of **Optill** when weeds are small and actively growing. An adjuvant is required with **Optill** for optimum burndown activity (refer to

Additives section for details). Burndown activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions, or when weeds are growing under drought or other stress conditions. When targeting dense weed populations and/or larger broadleaf weeds, use higher spray volumes. Angling nozzles forward (to 45 degrees) may improve penetration of denser weed canopies.

Residual preemergence applications of **Optill** must be activated by at least 1/2 inch of rainfall or sprinkler irrigation prior to weed seedling emergence. When **Optill** is not activated, a labeled postemergence herbicide or cultivation may be needed to control weed escapes.

Table 1. Weeds Controlled by Optill® herbicide Applied at 2.0 ozs/A

Common Name	Scientific Name	Level of Control		Maximum Height or Diameter
		Residual Application	Burndown Application	(inches)
C = Control S = Suppression				
Broadleaf Weeds				
Alligatorweed	<i>Alternanthera philoxeroides</i>	—	C	4
Amaranth, Palmer ¹	<i>Amaranthus palmeri</i>	—	C	6
Anoda, spurred	<i>Anoda cristata</i>	C	C	2
Artichoke, Jerusalem	<i>Helianthus tuberosus</i>	—	C	8
Bedstraw, catchweed	<i>Galium aparine</i>	—	C	3
Beets, wild	<i>Beta vulgaris</i>	—	C	5
Beggarticks, hairy	<i>Bidens pilosa</i>	—	C	6
Beggarweed, Florida	<i>Desmodium tortuosum</i>	—	C	6
Bindweed, field	<i>Convolvulus arvensis</i>	—	S ²	6
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	C	3
Buffalobur	<i>Solanum rostratum</i>	S	S	3
Canola, volunteer (rapeseed)	<i>Brassica</i> spp.	C	C	6
Carpetweed	<i>Mollugo verticillata</i>	C	C	6
Chickweed, common	<i>Stellaria media</i>	—	C	3
Chickweed, mouse-ear	<i>Cerastium vulgatum</i>	—	C	3

(continued)

Table 1. Weeds Controlled by Optill® herbicide Applied at 2.0 ozs/A (continued)

Common Name	Scientific Name	Level of Control		Maximum
		Residual Application	Burndown Application	Height or Diameter (inches)
Broadleaf Weeds (continued)				
Cocklebur, common	<i>Xanthium strumarium</i>	S	C	8
Cowcockle	<i>Vaccaria pyramidata</i>	—	C	4
Cress, hoary	<i>Cardaria draba</i>	—	S	2
Dandelion	<i>Taraxacum officinale</i>	—	S ²	6
Eveningprimrose, cutleaf	<i>Oenothera laciniata</i>	—	C	4
Falseflax, smallseed	<i>Camelina microcarpa</i>	—	C	4
Filaree, redstem	<i>Erodium cicutarium</i>	—	S	3
Filaree, whitestem	<i>Erodium moschatum</i>	—	S	3
Fleabane, hairy	<i>Conyza bonariensis</i>	—	C	6
Fleabane, rough	<i>Erigeron asper</i>	—	C	3
Flixweed	<i>Descurainia sophia</i>	—	C	6
Galinsoga	<i>Galinsoga parviflora</i>	C	—	—
Groundcherry, cutleaf	<i>Physalis angulata</i>	—	C	6
Groundsel, common	<i>Senecio vulgaris</i>	—	C	4
Henbit	<i>Lamium amplexicaule</i>	—	S	3
Horseweed (marestail)	<i>Conyza canadensis</i>	—	C	6
Jimsonweed	<i>Datura stramonium</i>	S	C	3
Knotweed, prostrate	<i>Polygonum aviculare</i>	—	C	3
Kochia ¹	<i>Kochia scoparia</i>	C	C	1 to 3 Suppression of button/puffball stage at < 1-inch tall
Ladysthumb	<i>Polygonum persicaria</i>	C	C	6
Lambsquarters, common	<i>Chenopodium album</i>	C	C	6
Lambsquarters, narrowleaf	<i>Chenopodium pratericola</i>	—	C	6
Lettuce, miner's	<i>Claytonia perfoliata</i>	—	C	3

(continued)

Table 1. Weeds Controlled by Optill® herbicide Applied at 2.0 ozs/A (continued)

Common Name	Scientific Name	Level of Control		Maximum
		Residual Application	Burndown Application	Height or Diameter (inches)
C = Control S = Suppression				
Broadleaf Weeds (continued)				
Lettuce, prickly	<i>Lactuca serriola</i>	—	C	6
Mallow, common	<i>Malva neglecta</i>	—	C	6
Mallow, little (cheeseweed)	<i>Malva parviflora</i>	—	C	6
Mallow, Venice	<i>Hibiscus trionum</i>	S	C	6
Marestail (horseweed)	<i>Conyza canadensis</i>	—	C	6
Marshelder	<i>Iva xanthifolia</i>	C	C	4
Milkweed, common	<i>Asclepias syriaca</i>	—	C	3
Morningglory, entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	S	C	6
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	S	C	6
Morningglory, palmleaf	<i>Ipomoea wrightii</i>	—	C	6
Morningglory, pitted	<i>Ipomoea lacunosa</i>	S	C	6
Morningglory, smallflower	<i>Jacquemontia tamnifolia</i>	C	C	3
Morningglory, tall	<i>Ipomoea purpurea</i>	S	C	6
Mustard, black	<i>Brassica nigra</i>	C	C	6
Mustard, tumble	<i>Sisymbrium altissimum</i>	—	C	6
Mustard, wild	<i>Sinapis arvensis</i>	C	C	6
Nettle, burning	<i>Urtica urens</i>	—	C	4
Nightshade, black	<i>Solanum nigrum</i>	C	C	6
Nightshade, cutleaf	<i>Solanum triflorum</i>	—	C	6
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C	C	6
Nightshade, hairy	<i>Solanum saccharoides</i>	C	C	6
Pennycress, field	<i>Thlaspi arvense</i>	—	C	6
Pepperweed, field	<i>Lepidium campestre</i>	—	C	3
Pepperweed, Virginia	<i>Lepidium virginicum</i>	—	C	3
Pigweed, prostrate	<i>Amaranthus blitoides</i>	—	C	6

(continued)

Table 1. Weeds Controlled by Optill® herbicide Applied at 2.0 ozs/A (continued)

Common Name	Scientific Name	Level of Control		Maximum
		Residual Application	Burndown Application	Height or Diameter (inches)
C = Control S = Suppression				
Broadleaf Weeds (continued)				
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	C	6
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	C	6
Pigweed, spiny	<i>Amaranthus spinosus</i>	C	C	6
Poinsettia, wild	<i>Euphorbia heterophylla</i>	C	—	—
Puncturevine	<i>Tribulus terrestris</i>	C	C	6
Purslane, common	<i>Portulaca oleracea</i>	C	C	3
Pusley, Florida	<i>Richardia scabra</i>	C	S	3
Radish, wild	<i>Raphanus raphanistrum</i>	—	S	4
Ragweed, common ¹	<i>Ambrosia artemisiifolia</i>	S	C	6
Ragweed, giant ¹	<i>Ambrosia trifida</i>	S	C	6
Redmaids	<i>Calandrinia ciliata</i>	—	C	3
Rocket, London	<i>Sisymbrium irio</i>	—	C	4
Rocket, yellow	<i>Barbarea vulgaris</i>	—	C	3
Sesbania, hemp	<i>Sesbania exaltata</i>	—	C	4
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	C	6
Sida, prickly	<i>Sida spinosa</i>	S	C	6
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C	6
Smartweed, swamp (seedling)	<i>Polygonum coccineum</i>	—	C	3
Sowthistle, annual	<i>Sonchus oleraceus</i>	—	C	6
Sowthistle, spiny	<i>Sonchus asper</i>	—	C	6
Spurge, petty	<i>Euphorbia peplus</i>	—	C	3
Spurge, prostrate	<i>Euphorbia supina</i>	—	S	3
Spurge, spotted	<i>Euphorbia maculata</i>	—	S	3
Spurry, corn	<i>Spergula arvensis</i>	—	C	3

(continued)

Table 1. Weeds Controlled by Optill® herbicide Applied at 2.0 ozs/A (continued)

Common Name	Scientific Name	Level of Control		Maximum
		Residual Application	Burndown Application	Height or Diameter (inches)
		C = Control	S = Suppression	
Broadleaf Weeds (continued)				
Starbur, bristly	<i>Acanthospermum hispidum</i>	—	C	2
Sunflower, common	<i>Helianthus annuus</i>	S	C	6
Swinecress	<i>Coronopus didymus</i>	—	C	3
Tansymustard, green	<i>Descurainia incana</i>	—	C	3
Tansymustard, pinnate	<i>Descurainia pinnata</i>	—	C	6
Thistle, Canada	<i>Cirsium arvense</i>	—	S ²	6
Thistle, Russian	<i>Salsola kali</i>	C	C	3
Velvetleaf	<i>Abutilon theophrasti</i>	S	C	6
Watercress, creeping	<i>Coronopus squamatus</i>	—	C	2
Watercress	<i>Nasturtium officinale</i>	—	C	3
Waterhemp ¹	<i>Amaranthus tuberculatus</i>	—	C	6
Willowweed	<i>Epilobium adenocaulon</i>	—	C	3
Grass Weeds				
Barley, volunteer	<i>Hordeum vulgare</i>	—	S	2
Barnyardgrass	<i>Echinochloa crus-galli</i>	S	S	3
Canarygrass, littleseed	<i>Phalaris minor</i>	S	S	2
Crabgrass, large	<i>Digitaria sanguinalis</i>	S	S	3
Crabgrass, smooth	<i>Digitaria ischaemum</i>	S	S	3
Cupgrass, woolly	<i>Eriochloa villosa</i>	—	C	3
Foxtail, giant	<i>Setaria faberi</i>	C	C	6
Foxtail, green	<i>Setaria viridis</i>	C	C	3
Foxtail, yellow	<i>Setaria pumila</i>	C	C	3
Goosegrass	<i>Eleusine indica</i>	S	—	—
Johnsongrass (rhizome)	<i>Sorghum vulgare</i>	—	S	6
Johnsongrass (seedling)	<i>Sorghum vulgare</i>	C	C	8

(continued)

Table 1. Weeds Controlled by Optill® herbicide Applied at 2.0 ozs/A (continued)

Common Name	Scientific Name	Level of Control		Maximum
		Residual Application	Burndown Application	Height or Diameter (inches)
C = Control S = Suppression				
Grass Weeds (continued)				
Millet, wild proso	<i>Panicum miliaceum</i>	S	S	3
Oats, volunteer	<i>Avena sativa</i>	—	S	2
Oats, wild	<i>Avena fatua</i>	—	S	3
Panicum, fall	<i>Panicum dichotomiflorum</i>	S	—	—
Panicum, Texas	<i>Panicum texanum</i>	S	—	—
Rice, red	<i>Oryza rufipogon</i>	—	C	3
Shattercane	<i>Sorghum bicolor</i>	S	C	8
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	S	C	8
Wheat, volunteer	<i>Triticum</i> spp.	—	S	2
Sorghum, alnum	<i>Sorghum alnum</i>	S	C	3
Sedges				
Nutsedge, purple	<i>Cyperus rotundus</i>	S ²	S ²	3
Nutsedge, yellow	<i>Cyperus esculentus</i>	S ²	S ²	3

¹ Populations of noted weeds exist that are known to be resistant to **Group 2/Group B** and/or **Group 14/Group E** herbicides and will not be controlled by herbicides like **Optill**. See the **Resistance Management** section for practices to manage and minimize the impact of resistant weeds (e.g. tank mixes or alternation with other herbicide modes of action, crop rotation and mechanical control).

² Control of seedling stage and suppression of perennial growth stage.

Table 2. Weeds Controlled by Optill® herbicide Applied at 1.5 ozs/A

Common Name	Scientific Name	Level of Control		Maximum
		Residual Application	Burndown Application	Height or Diameter (inches)
C = Control S = Suppression				
Broadleaf Weeds				
Amaranth, Palmer	<i>Amaranthus palmeri</i>	—	C	5
Bedstraw, catchweed	<i>Galium aparine</i>	—	C	1
Beets, wild	<i>Beta vulgaris</i>	—	C	4
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	C	3
Canola, volunteer (rapeseed)	<i>Brassica</i> spp.	—	C	4
Flixweed	<i>Descurainia sophia</i>	—	C	3
Horseweed (marestail)	<i>Conyza canadensis</i>	—	C	6
Knotweed, prostrate	<i>Polygonum aviculare</i>	—	C	3
Kochia	<i>Kochia scoparia</i>	C ¹	C	3
Lambsquarters, common	<i>Chenopodium album</i>	C	C	3
Lettuce, prickly	<i>Lactuca serriola</i>	—	C	3
Mustard, black	<i>Brassica nigra</i>	—	C	3
Mustard, tumble	<i>Sisymbrium altissimum</i>	—	C	3
Mustard, wild	<i>Sinapis arvensis</i>	C	C	6
Nightshade, black	<i>Solanum nigrum</i>	C	C	3
Nightshade, cutleaf	<i>Solanum triflorum</i>	—	C	1
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C	C	3
Nightshade, hairy	<i>Solanum saccharoides</i>	C	C	3
Pennycress, field	<i>Thlaspi arvense</i>	—	C	6
Pepperweed, field	<i>Lepidium campestre</i>	—	C	3
Pigweed, prostrate	<i>Amaranthus blitoides</i>	—	C	1
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	C	4
Pigweed, smooth	<i>Amaranthus hybridus</i>	—	C	4

(continued)

Table 2. Weeds Controlled by Optill® herbicide Applied at 1.5 ozs/A (continued)

Common Name	Scientific Name	Level of Control		Maximum
		Residual Application	Burndown Application	Height or Diameter (inches)
C = Control S = Suppression				
Broadleaf Weeds (continued)				
Puncturevine	<i>Tribulus terrestris</i>	—	C	5
Rocket, London	<i>Sisymbrium irio</i>	—	C	3
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	C	3
Tansymustard, green	<i>Descurainia incana</i>	—	C	3
Tansymustard, pinnate	<i>Descurainia pinnata</i>	—	C	3
Thistle, Russian	<i>Salsola kali</i>	C	C	2

¹ Populations of noted weeds exist that are known to be resistant to **Group 2/Group B** and/or **Group 14/Group E** herbicides and will not be controlled by herbicides like **Optill**. See the **Resistance Management** section for practices to manage and minimize the impact of resistant weeds (e.g. tank mixes or alternation with other herbicide modes of action, crop rotation and mechanical control).

Mode of Action

Optill® herbicide is a potent inhibitor of both protoporphyrinogen-oxidase, belonging to herbicide mode-of-action **Group 14** (WSSA)/**Group E** (HRAC), and acetohydroxyacid synthase, belonging to herbicide mode-of-action **Group 2** (WSSA)/**Group B** (HRAC). **Optill** is rapidly absorbed by roots and foliage. Plant death is the result of membrane damage and inhibition of the production of branched chain amino acids. Under active growing conditions, susceptible emerged weeds usually develop chlorotic and necrotic injury symptoms within hours and die within a few days. Susceptible emerging weed seedlings will usually die as they reach the soil surface or shortly after emergence.

Resistance Management

While weed resistance to protoporphyrinogen-oxidase inhibiting herbicide is relatively infrequent, populations of resistant biotypes to protoporphyrinogen-oxidase or acetohydroxyacid-synthase inhibiting herbicides are known to exist. Resistance management practices include:

1. Following labeled application rate and weed growth-stage recommendations
2. Avoiding repeated applications of herbicides with the same mode of action
3. Utilizing tank mixes and sequential applications with other effective herbicides possessing different modes of action
4. Using crop rotation so that crop competition, tillage or herbicides with alternative modes of action can be used to control weed escapes

Crop Tolerance

Crops are tolerant to **Optill** when applied according to label directions as a preplant to preemergence treatment and under normal environmental conditions. Crop injury may occur under stressful growing conditions (e.g. seedling disease, extreme hot or cold weather, excessive moisture, high soil pH, high soil salt concentration or drought).

Severe crop injury will result if **Optill** is applied postemergence (over the top) to any crop.

Application Instructions

Apply **Optill** prior to crop emergence only.

Application Methods and Equipment

Optill may be applied by either ground or air. Thorough spray coverage is required for optimum weed control and can be improved with proper adjuvant, nozzle and spray volume selection.

Use and configure application equipment to provide an adequate spray volume, an accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to nontarget areas. Equipment should be adjusted to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above the use rates specified in this label.

Optill may only be applied using water as the spray carrier.

Aerial Application Requirements

Water Volume. Use 3 or more gallons of water per acre.

The following measures must be followed to reduce the potential of spray drift to nontarget areas from aerial applications:

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the fixed wingspan or 90% of rotor blade diameter.
2. Use low-drift nozzles such as straight-stream nozzles (D-8 or larger). **DO NOT** use nozzles producing a mist droplet spray.
3. Nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.
4. Without compromising aircraft safety, applications should be made at a height of 10 feet or less above the crop canopy or tallest plants.
5. **DO NOT** apply during periods of temperature inversions or stable atmospheric conditions.

- Avoid potential adverse effects to nontarget areas by maintaining a 26-foot buffer between the point of direct application and the **closest downwind edge** of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, and shrub lands).

Ground Application Requirements

Water Volume. Use 5 or more gallons of water per treated acre for weed control applications. Thorough spray coverage is required for control of emerged broadleaf weeds. High populations and/or variations in size can prevent adequate spray coverage. Controlling fall-germinated weeds in the spring (e.g. horseweed/marestail) will also require thorough spray coverage. Use higher spray volumes (e.g. 15 to 20 gallons of water per acre) in these situations to increase spray coverage and optimize burndown activity.

The following measures must be followed to reduce the potential of spray drift to nontarget areas from ground applications:

- Apply this product using nozzles which deliver **medium-to-coarse spray droplets** as defined by ASAE standard S-572 and as shown in nozzle manufacturer's catalogs. Flat-fan nozzles are recommended for burndown applications while flood-jet type nozzles are recommended for residual soil surface applications. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of target (i.e. weeds or soil surface). **DO NOT** use nozzles that produce fine (e.g. cone) spray droplets.
- Apply this product only when the potential for drift to adjacent nontarget areas is minimal (e.g. when the wind is **10 MPH or less and is blowing away** from sensitive areas). **DO NOT** apply during periods of temperature inversions or stable atmospheric conditions.
- Avoid potential adverse effects to nontarget areas by maintaining a 13-foot buffer between the application area and the **closest downwind edge** of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, and shrub lands).

Cleaning Spray Equipment

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions, followed by triple rinsing the equipment before and after applying this product.

Spray Drift Management

It is the responsibility of the applicator to avoid spray drift at the application site, especially onto nontarget areas. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The applicator should be familiar with and take into account the information covered in the following spray drift reduction advisory information.

Controlling Droplet Size. The most effective way to reduce drift potential is to apply the largest droplets that provide sufficient coverage and control.

Volume. Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure. DO NOT exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles. Use the minimum number of nozzles that provide uniform coverage.

Nozzle Type. Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets.

Swath Adjustment. When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. aircraft, ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

Wind. Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. If applying at wind speeds less than 3 mph, the applicator must determine if:

1. Conditions of temperature inversion exist, or
2. Stable atmospheric conditions exist at or below nozzle height.

DO NOT make applications into areas of temperature inversions or stable atmospheric conditions.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Wind Erosion. 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.

Additives

For optimum burndown activity with **Optill® herbicide**, an adjuvant system must be used that includes the following:

Adjuvant	Rate
Methylated seed oil (MSO) ¹	1 gal/100 gals (1% v/v) ²
PLUS	PLUS
Ammonium sulfate (AMS) or Urea ammonium nitrate (UAN)	8.5 to 17 lbs/100 gals (1% to 2% w/v) or 1.25 to 2.5 gals/100 gals (1.25% to 2.5% v/v)

¹ MSO-based adjuvant **MUST** contain at least 60% methylated seed oil. Poor performance may occur with adjuvants containing less than 60% methylated seed oil.

² **DO NOT** use less than 1 pint/A of MSO with low-volume (< 12.5 gallons per acre) aerial or ground applications.

The use of AMS fertilizer is highly recommended when mixing **Optill** with glyphosate-based herbicides.

DO NOT use a nonionic surfactant (NIS) as a substitute for MSO or poor performance on broadleaf weeds will occur.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

Tank Mixing Information

Optill may be tank mixed with one or more registered herbicide products according to the specific tank mixing instructions in this label and respective product labels. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Always follow the most restrictive label use directions. Refer to **Crop-specific Information** section for details.

Tank mixtures with contact herbicides (e.g. carfentrazone, paraquat) may reduce the burndown activity of **Optill**.

Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

1. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
2. Add components in the sequence indicated in the mixing order using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre.
3. Always cap the jar and invert 10 cycles between component additions.
4. When the components have all been added to the jar, let the solution stand for 15 minutes.
5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility

test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

Mixing Order

1. **Water** - Fill tank 1/2 to 3/4 full with clean water and start agitation.
2. **Agitation** - Maintain agitation throughout mixing.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-soluble additives** (including dry and liquid fertilizers such as ammonium sulfate or urea ammonium nitrate)
6. **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
7. **Water-soluble products**
8. **Emulsifiable concentrates** (including methylated seed oil adjuvants)
9. **Remaining quantity of water**

Maintain agitation throughout application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

Use Precautions

- **Maximum seasonal use rate** - Refer to the **Crop-specific Information** section for maximum cropping seasonal application use rates for each crop and use pattern. A cropping season is defined as the period following harvest of the preceding crop through the harvest of the planned or current crop.

- **DO NOT** apply **Optill® herbicide** after crop emergence or severe crop injury will occur.
- **Rainfastness** - **Optill** is rainfast 1 hour after application. Burndown activity may be reduced if rain or irrigation occurs within 1 hour of application.
- **DO NOT** contaminate irrigation ditches or water used for domestic purposes.
- **DO NOT** apply **Optill** through any type of irrigation system (e.g. chemigation).
- Full rate application of products containing chlorimuron ethyl, chloransulam-methyl, flumetsulam, imazaquin, or imazethapyr in the same year as **Optill** may increase the risk of injury to sensitive follow crops. Consult the respective labels of these products for recommended uses of these products in combinations.
- Only rotational crops harvested at maturity may be used for feed or food.
- When organophosphate or carbamate insecticides are tank mixed with **Optill**, temporary injury may result to the treated crops.
- **Optill is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.**

Rotational Crop Restrictions, Crop Rotation, and Emergency Replanting Intervals

Use **Table 3** and its exceptions in the paragraphs following the table to determine the proper interval between **Optill** application and rotational crop planting. This interval can be used to determine the acceptable planting interval for rotational crops as well as replanting after crop failure (because of environmental factors such as drought, frost or hail, etc.). Be sure to determine the rotational crop interval for tank mix products and utilize the most restrictive interval of all products applied.

Table 3. Rotational Crop Planting and Emergency Replanting Intervals after an Application of Optill® herbicide at 2.0 ozs/A

Crop	Rotational Crop Interval (months after application)
Clearfield® corn	0
Soybeans	0 to 1 ^a
Southern peas	1
Clearfield® wheat	3
Alfalfa Clover Edible beans and peas (other than Southern peas) Peanuts Wheat	4
Rye	4 to 18 ^b
Field corn and field corn grown for seed	8.5
Barley Tobacco Clearfield® canola Clearfield® sunflower	9.5
Cotton Lettuce Oats Popcorn Safflower Sorghum Sunflower Sweet corn	18
Flax Potatoes	26
Other crops	40 ^c

^a The planting interval for these crops and rates is further defined in the respective **Crop-specific Information** section of this label. Use the longer interval within listed ranges for indicated crops grown on coarse textured soils with organic matter less than 2.0%.
(continued)

(continued)

^b Use the longest interval for rye grown in North Dakota and Minnesota north of Highway #210.

^c Following 40 months after an **Optill** application and before planting any crop not listed elsewhere in the **Rotational Crop Restrictions, Crop Rotation, and Emergency Replanting Intervals**, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted across the previously treated field and grown to maturity. The test strip should include low areas and knolls and include variations in soil such as type and pH. If no crop injury is evident in the test strip, the intended rotational crop may be planted the following year. Sugar beet production can be reduced when grown in soil conditions with a pH less than 6.5. If the field is limed to adjust pH prior to planting rotational crops not listed in **Rotational Crop Restrictions, Crop Rotation, and Emergency Replanting Intervals**, apply the lime at least 12 months prior to planting the rotational crop.

Use of **Optill** 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, rotational crop injury is always possible.

Exceptions to Crop Rotation Restrictions

Barley

(Delaware, Indiana, Kentucky, Maryland, New Jersey, Ohio, Pennsylvania, and Virginia only)

Barley may be planted 4 months following an **Optill** application in these states.

Corn inbred lines

Corn inbred seed lines may be planted the year following an application of **Optill**. Growers are directed to contact the seed company for information and recommendations regarding the planting of corn grown for seed in fields treated with **Optill** the previous year. Because growing conditions, environmental conditions and grower practices are beyond the control of BASF, all risks and consequences as-

sociated with planting seed corn inbreds into fields treated previously with **Optill® herbicide** shall be assumed by the user.

Sweet corn and popcorn varieties (Illinois, Indiana, Iowa, Minnesota, Ohio, Tennessee, and Wisconsin only)

Sweet corn and popcorn varieties may be planted the year following an application of **Optill**. Some sweet corn and popcorn varieties may be injured when planted at less than 18 months following an application of **Optill**. Before planting sweet corn for processing, contact the processor company for information and recommendations regarding the tolerance of sweet corn varieties planned for fields treated with **Optill** the previous year. **DO NOT** plant fresh market sweet corn varieties prior to 18 months after **Optill** use. Before planting popcorn, contact the popcorn company for information and recommendations regarding the tolerance of popcorn varieties planned for fields treated with **Optill** the previous year. Because growing conditions, environmental conditions and grower practices are beyond the control of BASF, all risks and consequences associated with planting sweet corn or popcorn varieties into fields treated previously with **Optill** shall be assumed by the user. Stunting and maturity delay or other adverse effects may result when sweet corn or popcorn are planted following **Optill** use.

Certain vegetable crops

(Alabama, Delaware, Florida, Georgia, Indiana, Kentucky, Maryland, New Jersey, North Carolina, Pennsylvania, South Carolina, and Virginia only)

The following crops may be planted 18 months following the last application of **Optill**: Bahiagrass, cabbage, cantaloupe, cucumber, Irish potato, onion, sweet pepper transplants, sweet potato transplants, tomato transplants and watermelon.

Field corn and field corn grown for seed

(Arizona, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming)

Plant 9.5 months after **Optill** application.

Wheat

Wheat may be planted 3 months following an **Optill** application in areas east of Interstate Highway I-35.

When **Optill** is applied at no more than 1.5 ozs/A to edible legumes in the use areas described, the following rotational restrictions apply: Following an application of **Optill**, chickpeas and peas may be planted anytime, lentil may be planted 1 month, and barley may be planted 4 months.

Crop-specific Information

This section provides use directions for **Optill** in specific crops. Be sure to read about product information, mixing, application, weeds controlled and adjuvant instructions in preceding sections of the label. Read and follow tank mix product labels for restrictions, precautions, instructions and rotational crop restrictions.

Depending on specific crop application directions, **Optill** may be applied for burndown control of emerged weeds and/or residual control of germinating weeds (refer to **Table 1** and **Table 2** for lists of weeds controlled dependent on application rate) before planting (preplant/preseed) or after planting but before crop emergence. Depending on the time between **Optill** application and planting, a followup in-crop herbicide application may be needed for complete weed control throughout the growing season.

Thorough spray coverage is required for control of emerged broadleaf weeds. High populations and/or variations in size can prevent adequate spray coverage. Controlling fall-germinated weeds in the spring (e.g. horseweed/marestail) will also require thorough spray coverage. Use higher spray volumes (e.g. 15 to 20 gallons of water per acre) in these situations to increase spray coverage and optimize burndown activity.

Clearfield® Corn

Use **Optill** in **Clearfield** corn production only. Use in non-**Clearfield** corn or after corn emergence will result in crop injury.

Application Rate and Timing

Apply **Optill® herbicide** at 2.0 ozs/A in a single application as a preplant burndown, preplant incorporated, or preemergence treatment in **Clearfield®** corn (refer to **Table 1** for list of weeds controlled).

Crop-specific Restrictions and Limitations

- **Use only in Clearfield corn.**
- Not for use in **Clearfield** corn in California.
- **DO NOT** apply **Optill** in North Dakota and Minnesota (north of Highway #210) in **Clearfield** corn.
- **DO NOT** apply **Optill** after corn emergence or severe crop injury will occur.
- **DO NOT** apply **Optill** where an at-planting application of an organophosphate or carbamate insecticide(s) is planned or has occurred because severe injury may result.

EXCEPTION: **Optill** may be applied when **Aztec® insecticide** or **Fortress® insecticide** is applied at planting as a band, T-band, or in-furrow. **Optill** may be applied with all other classes of at-planting insecticides including pyrethroids, neonicotinoids, and fipronil.

- **DO NOT** apply more than 2.0 ozs/A of **Optill** per cropping season.
- **DO NOT** apply more than a maximum cumulative amount of 0.134 lb ai/A saflufenacil per cropping season in **Clearfield** corn from all product sources.
- **DO NOT** apply more than 0.063 lb ae/A of imazethapyr per cropping season to **Clearfield** corn.
- Corn forage and silage can be fed or grazed 80 or more days after application.

Tank Mixtures

Broad-spectrum burndown of additional grasses or broadleaf weeds will require a tank mix. **Optill** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Clarity® herbicide**
- **Outlook® herbicide**
- **Prowl® H₂O herbicide**
- atrazine
- glyphosate (e.g. **Roundup® herbicide**)
- **Harness® herbicide**
- **Harness® Extra herbicide**

Legume Vegetables [chickpea (garbanzo bean), dry field pea, and English (garden, green) peas]

Optill may be applied preplant, preplant incorporated, or preemergence in chickpea (garbanzo bean), dry field peas, and English (garden, green) peas for weed control (refer to **Table 2** for list of weeds controlled).

Optill may be tank mixed with other herbicides such as glyphosate for burndown of additional grasses or broadleaf weeds. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for use on the specific legume crop. With burndown applications, an adjuvant system (refer to **Additives** section for details) is required for optimum burndown activity.

Application Timing

Preplant Application

Apply **Optill** up to 30 days before planting. Unpredictable residual weed control may result with applications greater than 14 days before planting.

Preplant Incorporated Application

Apply **Optill** up to 1 week before planting. **DO NOT** incorporate deeper than 3 inches.

Preemergence Application

Apply **Optill** immediately after or up to 3 days after planting but prior to crop emergence. **DO NOT** apply when legumes have reached the cracking stage or after emergence or severe crop injury will occur.

Application Rate

See the following specific application rates and timings for the individual legume vegetable crops.

NOTE: 1.5 ozs of **Optill® herbicide** contains 0.017 lb ai/A saflufenacil and 0.047 lb ae/A imazethapyr.

Chickpeas (garbanzo bean)

Apply **Optill** at 1.5 ozs/A preplant burndown, preplant incorporated, or preemergence. A sequential application of **Sharpen® herbicide** may be made with a minimum of 14 days between applications.

Dry Field Pea

Apply **Optill** at 1.5 ozs/A preplant burndown, preplant incorporated, or preemergence. A sequential application of **Sharpen** may be made with a minimum of 30 days between applications.

English (garden, green) Peas in Illinois, Iowa, Minnesota, New York, and Wisconsin

Before applying **Optill** to English peas, verify the selectivity of **Optill** on your variety with your seed company (supplier) to help avoid potential injury to sensitive varieties.

Apply **Optill** at 1.5 ozs/A preplant burndown, preplant incorporated, or preemergence. A sequential application of **Sharpen** may be made with a minimum of 30 days between applications.

Geographic Restrictions

(for all legume vegetable crops)

- **DO NOT** apply **Optill** in California, North Dakota, or north of Highway #210 in Minnesota.
- **DO NOT** apply **Optill** in Arizona on dry field pea.
- **In Michigan or the Delaware, Maryland, and Virginia (DelMarVa) peninsula. DO NOT** apply more than 1.0 oz/A of **Optill** to sands or loamy sand soils preplant burndown or preemergence.

Crop-specific Restrictions and Limitations

(for all legume vegetable crops)

- **DO NOT** make more than one application of **Optill** per cropping season.

- **DO NOT** apply when legumes have reached the cracking stage or after emergence or severe crop injury will occur.
- **DO NOT** apply more than a maximum cumulative amount of 0.045 lb ai/A of saflufenacil per cropping season from all product sources.
- **DO NOT** apply more than a maximum cumulative amount of 0.047 lb ae/A of imazethapyr per cropping season from all product sources.
- **DO NOT** apply **Optill** with other products containing **Group 14/Group E** herbicides (such as sulfentrazone or flumioxazin) as a tank mix or sequential application within 30 days of planting because crop injury may result.
- **DO NOT** use **Optill** on any *Phaseolus* bean species.
- Refer to **Rotational Crop Restrictions, Crop Rotation, and Emergency Replanting Intervals** section for crop rotation intervals.
- Legume forage and hay may be fed or grazed 65 days or more after application.
- Reduced crop growth, quality, yield and/or delayed maturity may result from **Optill** application to legume vegetables.
- Since delayed maturity may result from an **Optill** application, timing of harvest may need to be adjusted accordingly.
- **DO NOT** apply **Optill** if legume vegetable planting is to be delayed and chance of frost prior to maturity is likely.
- Plant dry field pea at least 1/2-inch deep to reduce risk of crop injury from **Optill** application.
- **DO NOT** apply **Optill** if cold and/or wet conditions are present or predicted to occur within 1 week of application.

Tank Mixtures

Optill may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- **Prowl® H₂O herbicide**
- **Sharpen**
- glyphosate (e.g. **Roundup® herbicide**)

Soybean

Optill® herbicide may be applied in the fall and/or in the spring as a preplant or preemergence burndown application in reduced or no-till soybean for weed control (refer to **Table 1** for list of weeds controlled). An adjuvant system (refer to **Additives** section for details) is required for optimum burndown activity.

Application Rates and Timings Fall Applications

Apply **Optill** at 2.0 ozs/A for burndown broadleaf weed control after the prior crop is harvested. Applications must be made prior to first killing frost. Fall applications can be made to all soil types.

Spring Applications

Apply **Optill** early preplant through preemergence at 2.0 ozs/A for burndown and/or residual weed control prior to crop emergence. A sequential application of **Sharpen® herbicide** at 1.0 and 2.0 fl ozs/A may be made with a minimum of 30 and 60 days between applications, respectively.

For enhanced burndown broadleaf weed control, tank mix apply **Optill** at 2.0 ozs/A plus **Sharpen** at 0.5 fl oz/A. When using this tank mixture, add 14 days to the minimum preplant intervals listed in **Table 4**.

Soybean Planting Interval

Dependent on soil texture and organic matter, an interval between **Optill** application and soybean planting may be required (see **Table 4**). These intervals must be observed prior to planting soybeans or crop injury may occur.

Table 4. Minimum Preplant Intervals Required Between Optill Application and Soybean Planting

Minimum Preplant Interval (days) by Soil Texture and Organic Matter Content		
Soil Texture	Organic Matter	
	≤ 2.0%	> 2.0%
Coarse (Sand, loamy sand, and sandy loam)	30	None
Medium (Silt, silt loam, loam, and sandy clay loam)	None	None
Fine (Sandy clay, silty clay, silty clay loam, clay loam, and clay)	None	None

Crop-specific Restrictions and Limitations

- Not for use in California in soybean.
- **DO NOT** apply more than 2.0 ozs/A of **Optill** (0.022 lb ai/A of saflufenacil and 0.063 lb ae/A imazethapyr) in a single application or cumulatively per cropping season.
- **DO NOT** apply more than a maximum cumulative amount of 0.089 lb ai/A of saflufenacil per cropping season in soybean from all product sources.
- **DO NOT** apply **Optill** to soybean in North Dakota and Minnesota north of Highway #210.

- **DO NOT** apply when soybeans have reached the cracking stage or after emergence because severe crop injury will result.
- **DO NOT** apply **Optill® herbicide** with other products containing **Group 14/Group E** herbicides (such as sulfentrazone or flumioxazin) as a tank mix or sequential application within 30 days of planting because crop injury may result. **Group 14/Group E** herbicides labeled for post-emergence applications in soybean may be used 14 days after soybean emergence.
- **DO NOT** graze or feed treated soybean forage, hay or straw to livestock.
- There must be an interval of at least 85 days between an application of **Optill** and soybean grain harvest.
- Ensure that the seed row is sufficiently covered with soil to avoid washing and concentration of the herbicide in the seed zone.
- Always use the most restrictive preplant interval of all inclusive herbicides when applying **Optill** as part of a tank mix.

Tank Mixtures

Broad-spectrum burndown of additional grasses or broadleaf weeds will require a tank mix. **Optill** may be tank mixed with one or more of, but not limited to, the following herbicide products:

- **Clarity® herbicide**
- **Prowl® H₂O herbicide**
- **Scepter® herbicide**
- glyphosate (e.g. **Roundup® herbicide**)

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 must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the 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. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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Based on: NVA 2013-04-323-0125
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BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**

The Chemical Company



The Chemical Company

Optill®

Powered by **Kixor®** Herbicide

For use in the following agricultural crops: chickpea (garbanzo bean), Clearfield® corn, dry field pea, English pea, and soybean

Active Ingredients:

sulfafenacil: N'-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-(trifluoromethyl)-3,6-dihydro-1(2H)-pyrimidinyl)benzoyl]-N-isopropyl-N-methylsulfamide	17.80%
imazethapyr: (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid	50.20%
Other Ingredients:	32.00%
Total:	100.00%

Contains 0.178 pound active ingredient sulfafenacil and 0.502 pound acid equivalent imazethapyr per pound formulated as a water-dispersible granule (WG).

EPA Reg. No. 7969-280

EPA Est. No. 241-PR-002

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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.)

Precautionary Statements: Hazards to Humans and Domestic Animals. CAUTION. Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. **FIRST AID: If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. **If swallowed:** Call a poison control center or doctor immediately for treatment advice. **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. **DO NOT** give any liquid to the person. **DO NOT** give anything by mouth to an unconscious person. **If in eyes:** Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. Call a poison control center for treatment advice. **If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance;

Net Contents: 5 pounds

Product of U.S.A.

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then give artificial respiration, preferably by mouth to mouth, if possible. Call a poison control center or doctor for further treatment advice. **HOTLINE NUMBER:** Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357). **Environmental Hazards:** For terrestrial uses. **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate. See attached booklet for Groundwater Advisory, Surface Water Advisory, Proper Handling Instructions and Endangered Species Protection Requirements.

STORAGE AND DISPOSAL: DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. **Pesticide Storage: DO NOT** use or store near heat or open flame. Store in original container in a well-ventilated area separately from fertilizer, feed, or foodstuffs and away from other pesticides. Avoid cross-contamination with other pesticides. Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. **Pesticide Disposal:** Wastes resulting from this product may be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. **Container Handling: Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities. See attached booklet for complete container handling directions including triple rinsing and pressure rinsing instructions.

See attached booklet for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty,** and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

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