

62719-184

6/27/2013

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Nneka Breaux, Ph.D.
Dow AgroSciences LLC
9300 Zionsville Rd.
Indianapolis, IN 46268

JUN 27 2013

Subject: Label amendment to add all commodities of Crop Group 20A and 20B
Product Name: Sonalan 10G
EPA Reg. No: 62719-184
Petition Number: 2E8007
Decision Number(s): 462702 and 462704

Dear Dr. Breaux:

The labeling referred to above, submitted in connection with registration in accordance with FIFRA section 3(C)(7)(B), as amended, is acceptable, provided that you submit and/or cite all data required for reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data. You must comply with **DCI ID# GDCI-113101-1060** issued to you on May 16, 2012 (attached). If you have questions or concerns regarding registration review, please contact the Chemical Review Manager, Kelly Ballard at (703) 305-8126 or email at ballard.kelly@epa.gov.

A stamped copy of your label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products released for shipment after eighteen (18) months from the date of this letter must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions. If you have questions or concerns regarding this letter, please contact Beth Benbow at (703) 347-8072 or email at benbow.bethany@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "KATHRYN V. MONTAGUE".

Kathryn V. Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)

T1L / Sonalan 10G / Amend / 06-27-13
file: Sonalan 10G-184 27Jun13d.doc

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T1L / Sonalan 10G / Amend / 06-27-13

ACCEPTED
JUN 27 2013
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended for the pesticide registered under EPA Reg. No. 62719-184

(Base label):

Sonalan® 10G

Herbicide

A herbicide for preemergence control of certain annual grasses and broadleaf weeds in borage, calendula, castor oil plant, chinese tallowtree, crambe, cuphea, dry beans, dry peas, echium, euphorbia, evening primrose, flax seed, gold of pleasure, hare's ear mustard, jojoba, lesquerella, lunaria, meadowfoam, milkweed, mustard seed, niger seed, peanuts, rapeseed, oil radish, poppy seed, rose hip, safflower, sesame, soybeans, stokes aster, sweet rocket, sunflower, tallowwood, tea oil plant, and vernonia

Active Ingredient:

ethafluralin: <i>N</i> -ethyl- <i>N</i> -(2-methyl-2-propenyl)-2,6-dinitro-4-(trifluoromethyl)benzenamine	10%
Other Ingredients	90%
Total	100%

Contains 5 lb of active ingredient per 50 lb bag.

Keep Out of Reach of Children

DANGER 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.)

Precautionary Statements

Hazards to Humans and Domestic Animals

Corrosive • Causes Irreversible Eye Damage • Harmful If Inhaled

Do not get in eyes or on clothing. Avoid breathing dust. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- 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.

Engineering Controls

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.

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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.
- Users should 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.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

This product is toxic to fish and aquatic invertebrates. 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 when cleaning equipment or disposing of equipment washwaters or rinsate. Runoff or erosion from treated areas may be hazardous to fish in neighboring areas.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Storage and Disposal

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

Pesticide Storage: Store in original container only. In case of spill, contain material and dispose as waste.

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

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. If not emptied in this manner, the bag may be considered an acute hazardous waste and must be disposed of in accordance with local, state and federal regulations. When completely empty, offer for recycling if available, or dispose in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Avoid Freezing -- Store Above 40°F

EPA Reg. No. 62719-184

EPA Est. _____

®Trademark of Dow AgroSciences LLC
Produced for
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

Net Weight __

(cover/shipping container):

Sonalan[®] 10G

Herbicide

A herbicide for preemergence control of certain annual grasses and broadleaf weeds in borage, calendula, castor oil plant, chinese tallowtree, crambe, cuphea, dry beans, dry peas, echium, euphorbia, evening primrose, flax seed, gold of pleasure, hare's ear mustard, jojoba, lesquerella, lunaria, meadowfoam, milkweed, mustard seed, niger seed, peanuts, rapeseed, oil radish, poppy seed, rose hip, safflower, sesame, soybeans, stokes aster, sweet rocket, sunflower, tallowwood, tea oil plant, and vernonia

Active Ingredient:

ethalfuralin: <i>N</i> -ethyl- <i>N</i> -(2-methyl-2-propenyl)- 2,6-dinitro-4-(trifluoromethyl)benzenamine .	10%
Other Ingredients	90%
Total	100%

Contains 5 lb of active ingredient per 50 lb bag.

Keep Out of Reach of Children

DANGER 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.)

Agricultural Use Requirements
 Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to inside of label booklet for additional precautionary information including Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of Directions for Use. If terms are unacceptable, return at once unopened.

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Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Avoid Freezing -- Store Above 40°F

EPA Reg. No. 62719-184

EPA Est. _____

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 9330 Zionsville Road
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Net Weight __

(Page 1 through end):

Precautionary Statements

Hazards to Humans and Domestic Animals

DANGER

Corrosive • Causes Irreversible Eye Damage • Harmful If Inhaled

Do not get in eyes or on clothing. Avoid breathing dust. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- 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.

Engineering Controls

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.
- Users should 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.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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

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Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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

Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

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

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

Storage and Disposal

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

Pesticide Storage: Store in original container only. In case of spill, contain material and dispose as waste.

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

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. If not emptied in this manner, the bag may be considered an acute hazardous waste and must be disposed of in accordance with local, state and federal regulations. When completely empty, offer for recycling if available, or dispose in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Product Information

Sonalan® 10G herbicide is a selective herbicide for preemergence control of certain annual grasses and broadleaf weeds in borage, calendula, castor oil plant, chinese tallowtree, crambe, cuphea, dry beans, dry peas, echium, euphorbia, evening primrose, flax seed, gold of pleasure, hare's ear mustard, jojoba, lesquerella, lunaria, meadowfoam, milkweed, mustard seed, niger seed, peanuts, rapeseed, oil radish, popy seed, rose hip, safflower, sesame, soybeans, stokes aster, sweet rocket, sunflower, tallowwood,

tea oil plant, and vernonia. Apply and incorporate Sonalan 10G before planting. Sonalan 10G does not control established weeds.

Use Precautions and Restrictions

Poor weed control and/or crop injury may result if directions are not followed. Uneven application or improper incorporation can result in erratic weed control or injury to the treated or rotational crops.

Do not graze or use treated crop for feed or forage including silage.

Do not apply Sonalan 10G to soils that are wet, cloddy, or subject to prolonged periods of flooding as poor weed control or crop injury may result.

Apply only in areas and to crops specified on this label.

Sonalan 10G will not control DNA (dinitroaniline) resistant goosegrass.

Rotational Crop Restrictions

Replanting

If replanting is required, plant only those crops listed on this label.

Sugar Beets or Red Beets

Do not plant sugar beets or red beets within 13 months following an application of 11 lb of Sonalan 10G or more per acre. Where less than 11 lb of Sonalan 10G per acre have been applied, sugar beets or red beets may be planted 8 months after an application of Sonalan 10G provided that the treated area is moldboard plowed to a depth of 12 inches prior to planting.

Spinach or Oats

In California and Arizona do not plant spinach or oats within 8 months following an application of 11 lb of Sonalan 10G or more.

Small-Seeded Grasses (Bluegrass, Ryegrass, etc.)

Do not plant small-seeded grasses in the fall following a spring application of Sonalan 10G. Perennial grass crops or grass mixtures should not be planted for 12 months after application of Sonalan 10G to avoid the possibility of crop injury. If land has not been irrigated, these crops should not be planted for 18 months after a spring application of Sonalan 10G. Moldboard plowing to a depth of 12 inches before planting these crops will reduce the possibility of crop injury.

Special Rotational Crop Restrictions for the States of Montana and Wyoming

Plant only rapeseed (canola), safflower or sunflower as rotational crops in the crop year following the crop treated with 11.25 lb of Sonalan 10G per acre. In addition to rapeseed (canola), safflower or sunflower, spring seeded barley grown under irrigated conditions can be planted in the crop year following the crop treated with a 7.5 lb rate of Sonalan 10G per acre. If one of these specified crops is not planted, the land should be left idle or fallow for the entire year following the crop treated with Sonalan 10G.

Soil Preparation

Factors influencing the uniform application and incorporation of Sonalan 10G:

Crop Residues or Existing Weeds - Excessive amounts of crop residues or existing weeds may interfere with the incorporation of Sonalan 10G into the soil. A manageable level of such ground cover will allow Sonalan 10G to be uniformly mixed into the top 2 to 3 inches of the final seedbed. If the level of the ground cover is such that this cannot be done, the soil must be tilled prior to the application of Sonalan 10G.

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Soil Roughness - The soil surface should be smooth enough so that sprayer and incorporation equipment operate without wheel slippage and at speeds which ensure a uniform application and incorporation of Sonalan 10G.

General Soil Conditions - To assure uniform incorporation of Sonalan 10G, soil moisture conditions should be such that large clods can be broken up during the incorporation process.

Application Directions

Apply Sonalan 10G only with equipment capable of accurate calibration and uniform application of herbicide granules. Apply at recommended rate for soil texture. Follow calibration directions provided by the equipment manufacturer.

Application Timing

Spring Application

Apply and incorporate Sonalan 10G any time after January 1 when soil can be worked and is in a condition which allows thorough mixing to insure uniform incorporation.

Fall Application

Sonalan 10G may be applied and incorporated in the fall prior to a spring planting of dry beans or sunflowers. Apply Sonalan 10G anytime between October 1 and December 31 at the recommended rates for crops and soil textures listed in the Crops section of this label. Fall application of Sonalan 10G is not recommended on fields which remain wet or are subject to periods of flooding.

Soil Incorporation Directions

Two incorporation passes are necessary for Sonalan 10G, except when fall applied. The first incorporation should occur as soon as possible after application and, to prevent loss of herbicidal activity, should not be delayed more than 48 hours after application. For best weed control results the second incorporation should be delayed for at least 5 days after the first. Use incorporation equipment capable of thoroughly and uniformly mixing Sonalan 10G into the top 2 to 3 inches of the final seedbed or erratic weed control and/or crop injury may result.

When fall applied, incorporate Sonalan 10G once within 48 hours after application. In the spring, tillage associated with seedbed preparation may be used to destroy established weeds and improve the uniformity of incorporation. To avoid bringing untreated soil to the surface, the second incorporation should not be deeper than the first and should occur before planting.

Optional Methods of Incorporation for Soybeans, Dry Beans and Peanuts on Medium and Coarse Textured Soils

Sonalan 10G may be applied as a surface application and incorporated by rainfall or sprinkler irrigation. Soil should be in good tilth and free of clods. Make applications to tilled land and/or standing or chopped stubble from the previous season's crop. Conditions should permit thorough movement into the top 2 to 3 inches of the final seedbed. Application should be made immediately after tillage and after planting, but prior to rainfall or irrigation. Rainfall or sprinkler irrigation prior to application will tend to consolidate and seal the soil surface and prevent the downward movement of Sonalan 10G that is expected under porous, open, recently tilled conditions.

If continuous rainfall in the amount of at least 1/2 to 1 inch occurs within 2 days after application of Sonalan 10G, no further incorporation is required. If the prescribed amount of rainfall is not anticipated, supplemental overhead sprinkler irrigation of at least 1/2 to 1 inch of water may be applied within 2 days after application. Supplemental irrigation can be applied through a center pivot, solid set or hand moved sprinkler system. Furrow irrigation is prohibited as a method of application. Mechanical incorporation methods should be used to incorporate Sonalan 10G if the required amount of rainfall or supplemental irrigation does not occur within 2 days after application. If mechanical incorporation is used, adjust equipment so that planted seed will not be disturbed.

Restrictions if incorporation is by irrigation/rainfall: Do not apply more than 14 lb of Sonalan 10G (1.4 lb ai) per acre, regardless of the application rate in specific use directions, if incorporation is to be accomplished by supplemental overhead sprinkler irrigation. Do not apply more than 7.5 lb of Sonalan 10G (0.75 lb ai) per acre, regardless of the application rate in specific use directions, if incorporation is to be accomplished by rainfall only.

Cultivation After Planting

Soil treated with Sonalan 10G may be shallowly cultivated without reducing the weed control activity of Sonalan 10G. Do not cultivate deeper than the treated soil since weeds may germinate where untreated soil is brought to the surface.

Soil Texture Guide for Application Rates

Use rates of Sonalan 10G for specific crops are based on the soil texture class (coarse, medium, or fine) of the soil to be treated and organic matter content. A fine-textured soil (clay loam) requires a higher use rate than a coarse-textured soil (loamy sand). Field soil textures, grouped according Soil Texture Class, are listed in the table below and should be used to determine if the soil to be treated is coarse, medium or fine. Do not exceed recommended use rates for specific crops or target weed species.

Soil Texture Class	Field Soil Texture Group
coarse soils (light):	sand, loamy sand, sandy loam
medium soils:	loam, silty clay loam ¹ , silt loam, silt, sandy clay loam ¹
fine soils (heavy):	clay, clay loam, silty clay loam ¹ , silty clay, sandy clay, sandy clay loam ¹

¹ Silty clay loam and sandy clay loam soils are transitional soils and may be classified as either medium or fine textured soils. If silty clay loam or sandy clay loam soils are predominantly sand or silt, they are usually classified as medium textured soils. If they are predominantly clay, they are usually classified as fine textured soils.

Application Rate Ranges: Where a rate range is shown, use the lower rate for more coarse textured soils in the Field Soil Texture Group or soils with low organic matter content. Use the higher rate in the rate range for more fine textured soils in the Field Soil Texture Group and soils containing more than 5% organic matter. Where soil texture is variable within the same field, use the lower recommended rate for Sonalan 10G. Sonalan 10G is not recommended for use on soils containing more than 10% organic matter.

Grasses and Broadleaf Weeds Controlled

Sonalan 10G applied preplant soil incorporated will control the following weeds:

Common Name	Scientific Name
Grasses	
annual bluegrass	<i>Poa annua</i>
barnyardgrass	<i>Echinochloa crus-galli</i>
crabgrass	<i>Digitaria</i> spp.
(large crabgrass)	
(smooth crabgrass)	
cupgrass, woolly	<i>Eriochloa villosa</i>
foxtail	<i>Setaria</i> spp.
(foxtail millet)	
(giant foxtail)	
(green foxtail) ³	
(pigeongrass)	
(yellow foxtail)	
johnsongrass (from seed)	<i>Sorghum halepense</i>

jungerice	<i>Echinochloa colonum</i>
oat, wild ¹	<i>Avena fatua</i>
panicum, fall	<i>Brachiaria fasciculata</i>
panicum, Texas	<i>Panicum texanum</i>
(annual ryegrass)	
(buffalograss)	
(Coloradograss)	
sandbur, field	<i>Cenchrus incertus</i>
(sandbur, coast)	
signalgrass, broadleaf	<i>Brachiaria platyphylla</i>
(brachiaria)	
sorghum, volunteer	<i>Sorghum vulgare</i>
(wild cane)	
witchgrass	<i>Panicum capillare</i>

Broadleaf Weeds

buckwheat, wild	<i>Polygonum convolvulus</i>
carpetweed	<i>Mollugo verticillata</i>
catchfly, conical	<i>Silene conica</i>
chickweed, common	<i>Stellaria media</i>
fiddleneck tarweed	<i>Amsinckia lycopoides</i>
groundcherry, annual ²	
(lanceleaf groundcherry)	<i>Physalis lanceifolia</i>
henbit	<i>Lamium amplexicaule</i>
kochia	<i>Kochia scoparia</i>
lambsquarters, common	<i>Chenopodium album</i>
nightshade, annual ²	<i>Solanum spp.</i>
(black nightshade)	
(eastern black nightshade)	
(hairy nightshade)	
pigweed ³	<i>Amaranthus spp.</i>
(palmer amaranth)	
(prostrate pigweed)	
(redroot pigweed)	
(smooth pigweed)	
(tumble pigweed)	
purslane, common	<i>Portulaca oleracea</i>
pusley, Florida	<i>Richardia scabra</i>
rockpurslane, redmaids	<i>Calandrinia ciliata</i>
thistle, Russian	<i>Salsola iberica</i>

¹ Sonalan 10G will provide wild oat control, except for seeds germinating below the zone treated with Sonalan 10G.

² See special use rates for control in dry bean.

³ Sonalan 10G will not control DNA (dinitroaniline) tolerant biotypes of this weed species

Uses

Dry Beans

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading Application Timing in the Product Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the Product Information section of this label.

Broadcast Application Rates for General weed Control Except Groundcherry and Nightshade:

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Soil Texture	Sonalan 10G (lb/acre)
coarse	5.5 - 7.5
medium	7.5 - 9.5
fine	9.5 - 11.5

Broadcast Application Rates for General Weed Control Including Groundcherry and Nightshade From Seed:

Soil Texture	Sonalan 10G (lb/acre)
coarse	11.5 - 13.0
medium	13.0 - 15.0
fine	15.0 - 17.0

Precautions:

- Do not use these application rates for Sonalan 10G for garden bean, green bean, snap bean, or string bean.
- When high rates for control of nightshade are applied, rotate only to crops listed on this label.

Overlay or Postemergence Recommendations

For broader spectrum weed control, other products registered for use in dry beans may be applied as an overlay or postemergence treatment following application of Sonalan 10G. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use.

Dry Peas

(Not for Use in California)

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading Application Timing in the Product Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the Product Information section of this label.

Broadcast Application Rates for General Weed Control Except Groundcherry and Nightshade:

Soil Texture	Sonalan 10G (lb/acre)
coarse	5.5 - 7.5
medium	7.5

Precaution: Do not exceed these rates of Sonalan 10G for weed control in dry peas or crop injury may occur. Not all varieties of peas have been tested for tolerance to Sonalan 10G. Consult your seed contractor before applying Sonalan 10G to determine the tolerance of a particular pea variety. Application of Sonalan 10G to non-tolerant varieties may result in crop injury and reduced yield.

Restriction: Do not graze or forage crop grown in treated soil or cut for hay or silage.

Oilseed – Borage, Crambe, Cuphea, Echium, Flax seed, Gold of pleasure (Camelina), Hare's ear mustard, Lesquerella, Lunaria, Meadowfoam, Milkweed, Mustard seed, Oil radish, Poppy seed, Rapeseed (Canola Varieties Only), Sesame, and Sweet rocket

Apply and incorporate Sonalan 10G before planting. Application may be made in the fall or in the spring prior to planting canola or crambe. See instructions for fall application, application directions and soil incorporation directions in the Product Information section.

Use the correct rate for each soil type to avoid crop injury. Prolonged wet or cold soils, deep seed placement, soil crusting, or application overlaps may combine to cause slowed or reduced emergence.

Broadcast Application Rates:

Soil Texture	Sonalan 10G (lb/acre)
coarse	5.5
medium	7.5
fine	9.5

Overlay Recommendations

For broader spectrum weed control, other products registered for use in canola or crambe may be applied as a sequential overlay treatment following application of Sonalan 10G. Consult the manufacturer's label before use for additional weeds controlled, directions for use, and precautions and restrictions.

Precautions and Restrictions:

- Do not graze or forage crop grown in treated soil.
- **In Montana and Wyoming:** Refer to Special Rotational Crop Restrictions for the states of Montana and Wyoming in the Rotational Crop Restrictions section of this label.
- Gold of Pleasure crops exhibit marginal tolerance to Sonalan HFP. Stunting or reduced stands may occur.

Oilseed – Calendula, Castor oil plant, Chinese tallowtree, Euphorbia, Evening primrose, Jojoba, Niger seed, Rose hip, Stokes aster, Sunflower, Tallowwood, Tea oil plant, and Vernonia

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading Application Timing in the Product Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the Product Information section of this label.

Broadcast Application Rates for General Weed Control Except Groundcherry and Nightshade:

Soil Texture	Sonalan 10G (lb/acre)
coarse	5.5 - 7.5
medium	7.5 - 9.5
fine	9.5 - 11.5

Broadcast Application Rates for General Weed Control Including Groundcherry and Nightshade From Seed:

Soil Texture	Sonalan 10G (lb/acre)
coarse	11.5 - 13.0
medium	13.0 - 15.0
fine	15.0 - 17.0

Precaution: When high rates for control of nightshade are applied, rotate only to crops listed on this label.

Overlay or Postemergence Recommendations

For broader spectrum weed control, other products registered for use in sunflowers may be applied as an overlay or postemergence treatment following application of Sonalan 10G. Consult the manufacturer's label before use for additional weeds controlled, directions for use, precautions and restrictions.

Oilseed – Safflower

Apply Sonalan 10G as a preplant incorporated treatment in the fall or in the spring prior to planting safflower. Refer to the Product Information section for mixing directions, application methods, soil incorporation, and application timing. In addition to weeds listed on the label, Sonalan 10G is useful for control of ALS resistant kochia. Use the higher rate in the rate range where difficult to control weeds or high weed populations are anticipated.

Broadcast Application Rates:

Soil Texture	Sonalan 10G (lb/acre)
coarse	5.5 - 7.5
medium	7.5 - 9.5
fine	9.5 - 11.5

Precautions: To avoid crop injury, use the correct rate for the soil texture of the treatment area. Prolonged wet or cold soils, deep seed placement, soil crusting, or application overlaps may combine to cause slowed or reduced emergence.

Restrictions:

- Make only one application per crop season using ground broadcast equipment.
- Do not exceed 11.5 lb per acre per crop year.
- Do not allow grazing or harvest crop from treated soil for hay or silage.
- **In Montana and Wyoming:** Refer to Special Rotational Crop Restrictions for the states of Montana and Wyoming in the Rotational Crop Restrictions section of this label.

Peanut

Apply Sonalan 10G in the spring as a preplant incorporated treatment. Follow soil preparation, application and incorporation procedures recommended in the Product Information section of this label.

Broadcast Application Rates:

Soil Texture	Sonalan 10G (lb/acre)
coarse	5.5 - 7.5
medium	7.5 - 9.5
fine	9.5 - 11.5

Restriction: Do not graze or forage crop grown in treated soil or cut for hay or silage.

Overlay or Postemergence Recommendations

For broader spectrum weed control, other products registered for use in peanuts may be applied as an overlay or postemergence treatment following application of Sonalan 10G. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use.

Soybean

Apply and incorporate Sonalan 10G in the spring before planting or in the fall. See instructions for fall application of Sonalan 10G under the heading Application Timing in the Product Information section of this label. Follow soil preparation, application and incorporation procedures recommended in the Product Information section of this label.

Broadcast Application Rates for General Weed Control Except Groundcherry and Nightshade:

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Soil Texture	Sonalan 10G (lb/acre)
coarse	5.5 - 7.5
medium	7.5 - 9.5
fine	9.5 - 11.5

Broadcast Application Rates for General Weed Control Including Partial Control of Groundcherry and Nightshade From Seed

Soil Texture	Sonalan 10G (lb/acre)
medium	11.5
fine	13.0

Precautions:

- When high rates for control of nightshade are applied, rotate only to crops listed on this label.
- Soybeans should be planted no more than 2 inches deep after early season adverse weather conditions have passed, especially when using higher rate programs. Excessively deep planting or cool wet weather early in the growth cycle causes additional stress to the soybean plant. These factors may result in reduced stands, delayed maturity and reduced yields.

Overlay or Postemergence Recommendations

For broader spectrum weed control, other products registered for use in soybeans may be applied as an overlay or postemergence treatment following application of Sonalan 10G. Consult the manufacturer's label for additional weeds controlled, directions for use, cautions and limitations before use.

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1. Refund of purchase price paid by buyer or user for product bought, or
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