

ETHALFLURALIN	GROUP	3	HERBICIDE
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Sonalan[®] 10G

Herbicide

A herbicide for preemergence control of certain annual grasses and broadleaf weeds in dried shelled bean, except soybean, crop subgroup 6-22E; dry shelled pea crop subgroup 6-22F; onion, bulb crop subgroup 3-07A; peanuts; rapeseed crop subgroup 20A; safflower; soybeans; and sunflower crop subgroup 20B

ACTIVE INGREDIENT:	% BY WT.
Ethalfluralin: N-ethyl-N-(2-methyl-2-propenyl)-2, 6-dinitro-4-(trifluoromethyl)benzenamine.....	10%
Other Ingredients.....	90%
Total	100%

Contains 5 lb 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.)

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.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
HOT LINE 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 1-888-478-0798 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	

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 label booklet. If terms are unacceptable, return at once unopened.**

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

Avoid Freezing – Store Above 40°F

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 Frequently Repeated Skin Contact May Cause Allergic Reactions in Some Individuals.

For Spanish translation /
Para traducción al Español:



EPA Reg. No. 10163-355
EPA Est. No.

Produced For:
Gowan Company, LLC
P.O. Box 5569
Yuma, AZ 85366

Gowan[®]

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride ≥14 mils, or Viton ≥14 mils
- Shoes plus socks
- Protective eyewear

In addition to the above PPE, all handlers for use on bulb onions (crop subgroup 3-07A) must also wear:

- A minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter

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 or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-e)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide 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.

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 barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride ≥14 mils, or Viton ≥14 mils
- Shoes plus socks
- Protective eyewear

PRODUCT INFORMATION

Sonalan® 10G herbicide is a selective herbicide for preemergence control of certain annual grasses and broadleaf weeds. Apply and incorporate Sonalan 10G before planting. Sonalan 10G does not control established weeds.

USE PRECAUTIONS

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.

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

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.

USE RESTRICTIONS

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

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

Do not apply by air.

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

After an 11.5 lb/acre or greater application of Sonalan 10G, plant only rapeseed (canola), safflower or sunflower the following crop year.

After a Fall application of Sonalan 10G at rates of 7.5 lb/acre or less, to a Spring planted registered crop, in areas with adequate moisture and temperature for normal crop production, wheat, durum or barley grown under irrigated conditions, can be planted the following Spring in soils with organic matter 2% or greater.

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.

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.

WEED RESISTANCE MANAGEMENT

For resistance management, Sonalan 10G is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to Sonalan 10G and Group 3 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

Best Management Practices

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of Sonalan 10G or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:
 - (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - (2) a spreading patch of non-controlled plants of a particular weed species;
 - (3) surviving plants mixed with controlled individuals of the same species.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Gowan Company representative.

APPLICATION DIRECTIONS

Apply Sonalan 10G only with equipment capable of accurate calibration and uniform application of herbicide granules. Apply at labeled rate based on 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 ensure uniform incorporation.

Fall Application

Sonalan 10G may be applied and incorporated in the fall prior to a spring planting of dried shelled bean, except soybean, crop subgroup 6-22E or sunflower crop subgroup 20B. Apply Sonalan 10G anytime between October 1 and December 31 at the labeled rates for crop and soil textures listed in the "Uses" section of this label. Fall application of Sonalan 10G is not recommended on fields which remain wet or are subject to periods of flooding.

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 (1.4lb 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 (0.75lb ai) per acre, regardless of the application rate in specific use directions, if incorporation is to be accomplished by rainfall only.

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.

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 labeled use rates for specific crops or target weed species.

¹Silty 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 labeled rate for Sonalan 10G. Do not use Sonalan 10G on soils containing more than 10% organic matter.

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>
junglerice	<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 lycopsoides</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</i> spp.
(black nightshade)	
(eastern black nightshade)	
(hairy nightshade)	
pigweed ³	<i>Amaranthus</i> spp.
(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 dried shelled bean, except soybean, crop subgroup 6-22E

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

USES

DRIED SHELLED BEAN, EXCEPT SOYBEAN, CROP SUBGROUP 6-22E – African yam-bean; American potato bean; Bean (*Lupinus* spp.; includes Andean lupin, blue lupin, grain lupin, sweet lupin, white lupin, white sweet lupin, and yellow lupin); Bean (*Phaseolus* spp.; includes black bean, cranberry bean, dry bean, field bean, French bean, garden bean, great northern bean, green bean, kidney bean, lima bean, navy bean, pink bean, pinto bean, red bean, scarlet runner bean, tepary bean, and yellow bean); Bean (*Vigna* spp.; includes adzuki bean, blackeyed pea, asparagus bean, catjang bean, Chinese longbean, cowpea, crowder pea, mung bean, moth bean, rice bean, southern pea, urd bean, yardlong bean); broad bean; guar bean; goa bean; horse gram; Jackbean; lablab bean; morama bean; sword bean; winged pea; velvet bean, seed; cultivars, varieties, and/or hybrids of these commodities.

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 in the Product Information section of this label.

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

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	5.5 - 7.5	0.55 – 0.75
medium	7.5 - 9.5	0.75 – 0.95
fine	9.5 - 11.5	0.95 – 1.15

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

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	11.5 - 13.0	1.15 – 1.3
medium	13.0 - 15.0	1.3 – 1.5
fine	15.0 - 17.0	1.5 – 1.7

Restrictions:

- Do not use rates higher than 11.5 lb product (1.15 lb ai) per acre on garden beans, green bean, string bean or snap 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, precautions and limitations before use.

DRY SHELLED PEA CROP SUBGROUP 6-22F - Pea (*Pisum* spp.; includes field pea, dry pea, green pea, garden pea); chickpea; lentil*; grass-pea; pigeon pea; cultivars, varieties, and/or hybrids of these commodities
(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, in the Product Information section of this label.

Broadcast Application Rates for General Weed Control*

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	5.5 - 7.5	0.55 – 0.75
medium	7.5	0.75

*Will not control groundcherry and nightshade at rates listed above in dry shelled pea crop subgroup 6-22F

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.

*Fall applications only for lentils.

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

OILSEED – RAPESEED CROP SUBGROUP 20A - 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) including Brassica carinata, Sesame, Sweet rocket, cultivars, varieties, and/or hybrids of these.

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 product/acre)	Sonalan 10G (lb AI /acre)
coarse	5.5	0.55
medium	7.5	0.75
fine	9.5	0.95

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:

- Gold of Pleasure crops exhibit marginal tolerance to Sonalan 10G. Stunting or reduced stands may occur.

Restriction:

- 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.

OILSEED – SUNFLOWER CROP SUBGROUP 20B - Oilseed – Calendula, Castor oil plant, Chinese tallowtree, Euphorbia, Evening primrose, Jojoba, Niger seed, Rose hip, Stokes aster, Sunflower, Tallowood, Tea oil plant, Vernonia, cultivars, varieties, and/or hybrids of these. See specific directions for safflower below this section.

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 in the Product Information section of this label.

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

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	5.5 - 7.5	0.55 – 0.75
medium	7.5 - 9.5	0.75 – 0.95
fine	9.5 - 11.5	0.95 – 1.15

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

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	11.5 - 13.0	1.15 – 1.3
medium	13.0 - 15.0	1.3 – 1.5
fine	15.0 - 17.0	1.5 – 1.7

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 product/acre)	Sonalan 10G (lb AI /acre)
coarse	5.5 - 7.5	0.55 – 0.75
medium	7.5 - 9.5	0.75 – 0.95
fine	9.5 - 11.5	0.95 – 1.15

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 product (1.15 lb ai) per acre per 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.

ONION, BULB CROP SUBGROUP 3-07A - Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these.

Broadcast Application Rates for General Weed Control:

Direct seeded and transplanted – onion, bulb crop subgroup 3-07A, except garlic

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	3.75 – 7.5	0.37 – 0.75
medium	5.5 – 9.5	0.55 – 0.95
fine	5.5 - 12	0.55 – 1.2

Direct seeded and transplanted - garlic only

Soil Texture	Broadcast Rate (lb product/acre)	Sonalan 10G (lb AI /acre)
Coarse	5.5	0.55
Medium	7.5	0.75
Fine	12	1.2

Muck soil rate chart - onion, bulb crop subgroup 3-07A

Application timing and growth stage for Muck Soils (> 10% organic matter)	Rate (lb product/acre)	Sonalan 10G (lb AI /acre)
Pre-emergence through loop stage prior to emergence	15.0	1.5

*Will not control groundcherry and nightshade at rates listed above in onion, bulb crop subgroup 3-07A

Direct seeded - Follow soil preparation, application and incorporation procedures in the Product Information section of this label.

Pre-emergence - Apply after planting but before crop and weeds emerge

Incorporation Directions: Incorporate with rainfall or irrigation (no more than 0.25 inch of initial overhead irrigation) within 48 hours following application.

Pre-transplants - Apply and shallow incorporate no more than 2 inches into preformed beds, prior to transplanting.

Restrictions:

- Do not apply more than 12 lb product (1.2 lb ai) per acre per application.
- Do not apply more than 12 lb product (1.2 lb ai) per acre per year.
- For muck soil, do not apply more than 15 lb product (1.5 lb ai) per acre per application.
- For muck soil, do not apply more than 15 lb product (1.5 lb ai) per acre per year.
- Do not make post-emergent applications.

PEANUT

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

Broadcast Application Rates:

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	5.5 - 7.5	0.55 – 0.75
medium	7.5 - 9.5	0.75 – 0.95
fine	9.5 - 11.5	0.95 – 1.15

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, precautions 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 in the Product Information section of this label.

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

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
coarse	5.5 - 7.5	0.55 – 0.75
medium	7.5 - 9.5	0.75 – 0.95
fine	9.5 - 11.5	0.95 – 1.15

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

Soil Texture	Sonalan 10G (lb product/acre)	Sonalan 10G (lb AI /acre)
medium	11.5	1.15
fine	13	1.3

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, precautions and limitations before use.

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.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.

For other product information, contact Gowan Company or see Safety Data Sheet.

NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer and User.

Gowan Company warrants that this product conforms to the specifications on the label when used in strict conformance with Directions for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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