



Sollicam[®]DF

Herbicide

For control of grass (monocotyledon) and broadleaf (dicotyledon) weeds in alfalfa, cotton, peanuts, soybeans, tree fruits and nuts, caneberries, grapes, hops, asparagus, and farmstead areas

Active Ingredient:

Norflurazon: 4-chloro-5-(methylamino)-2-[3-(trifluoromethyl)-phenyl]-3-(2H)-pyridazinone 78.6%*

Other Ingredients: 21.4%

Total: 100.0%

*Technical ingredient analysis by isomer specific method AM-0864.

Previously 80% by method T-4295.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

Net Weight

EPA Reg. No. 61842-41

EPA Est. No.: _____

Manufactured For:
Tessengerlo Kerley, Inc.
2255 N. 44th St., Suite 300
Phoenix, AZ 85008 USA
1-800-525-2803
www.novasource.com

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • 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.
If on skin or clothing	<ul style="list-style-type: none"> • 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 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 mouth-to-mouth if possible. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • 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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal), Call 1-866-374-1975	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. In case of skin or eye contact, flush with plenty of water.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements

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

User Safety Recommendations

Users should:

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

Environmental Hazards

Do not contaminate water when disposing of equipment wash water. 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 allow this material to drift onto neighboring crops or noncrop areas or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues, or other undesirable results may occur.

Norflurazon can contaminate surface water through spray drift. Under some conditions, norflurazon may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

DIRECTIONS FOR USE

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

SOLICAM® DF Herbicide must be used only in accordance with recommendations on this label or in EPA Registered supplemental labeling.

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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
- Waterproof gloves
- Shoes plus socks

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

NOT FOR SALE, USE, OR DISTRIBUTION IN NASSAU COUNTY AND SUFFOLK COUNTY, NEW YORK.

PRODUCT INFORMATION

SOLICAM DF is a preemergence herbicide which controls certain grass (monocotyledon) and broadleaf (dicotyledon) weeds in alfalfa, cotton, peanuts, soybeans, certain tree fruits and nuts, caneberries, grapes, hops, asparagus, and farmstead areas. Refer to specific use directions for each crop.

SOLICAM DF must be moved into the weed seed germination zone to be effective. If no rainfall occurs within 4 weeks after application, the product must be incorporated by flood or sprinkler irrigation. SOLICAM DF has no postemergence activity and will not control established weeds. Existing weeds must be mechanically removed or controlled by using a suitable postemergence herbicide.

Multiple or sequential applications can be made, but the total quantity of SOLICAM DF applied within a year must not exceed the maximum recommended rates in the **Crop and Farmstead Use Directions**.

GEOGRAPHIC INFORMATION

The following geographic regions are referred to in the “Cotton” and “Rotational Crops” sections of this label:

Mid-South, Southeast, and TX (East of I-35), which includes the states of AL, AR, FL, GA, LA, MS, MO (boot heel only), NC, SC, TN, and TX (east of I-35)

SOLICAM DF can be applied preplant incorporated, preemergence surface, or as a split application (when allowed in specific use directions) in areas with 35 inches or more annual rainfall. In areas with less than 35 inches rainfall, apply only as preplant incorporated or split application (when allowed in specific use directions), unless irrigation is available for incorporation. SOLICAM DF may be used in conventional or conservation (i.e., no-till, reduced till) tillage systems. (*See special directions for conservation tillage below.*)

TX (West of I-35), Southwest OK, and NM which includes the states of NM, OK (west of I-35 and south of I-40), and TX (west of I-35)

*Precaution: SOLICAM DF may not be used in conventional or conservation tillage cotton systems **in areas with more than 65% sand**. SOLICAM DF should only be applied as a preemergence application as part of a program in sequence with Prowl® or in combination with Caparol® 4L.*

AZ (includes all areas within state boundaries)

*Precaution: SOLICAM DF may be applied only as a **preplant incorporated** application. Shallow incorporation is required. When cotton is irrigated up, do not exceed 0.60 lbs./A preplant incorporated when applied prior to listing and irrigate every*

other furrow. Do not exceed 0.60 lbs./A on soils with 65% or more sand. Do not apply to cotton by air in AZ.

USE RESTRICTIONS AND PRECAUTIONS

SOLICAM DF should be applied prior to weed seed germination and when rainfall or irrigation is likely to occur within 4 weeks of treatment.

SOLICAM DF will not control emerged weeds.

Aerial applications of SOLICAM DF can be utilized only in alfalfa, cotton (except in AZ), peanuts, and soybeans. Do not apply this product by aircraft in other crops.

Do not apply this product through any type of irrigation system/chemigation, except for citrus.

Do not apply to nursery stock, except for citrus.

Do not apply to erodible soil which may wash into the root zone of sensitive plants nor apply in greenhouses, as crop injury may occur.

Do not apply to container-grown plants.

In the Coachella Valley of CA, SOLICAM DF herbicide may only be applied to citrus, apples, or noncrop/farmstead areas.

If the cotton, peanut, or soybean plants are stressed during early development, application of SOLICAM DF at the label rate may result in temporary bleaching or chlorosis of the leaves from which the plants will recover.

Do not apply in areas with poor drainage.

Do not graze or feed cotton forage.

Do not graze or harvest soybean forage or hay within 90 days of the last SOLICAM DF application.

Follow directions for each geographic region, soil type, and crop.

WEEDS CONTROLLED AND SUPPRESSED

In the following table, the first rate column (0.5-2.5 lbs./A) pertains to rates specified for agronomic crops (alfalfa, cotton, peanuts, and soybeans) and the second column (2.5-5 lbs./A) pertains to rates specified for tree fruits and nuts, caneberries, grapes, hops, asparagus, and farmstead areas. Refer to specific use directions and rates for each crop.

SOLICAM DF at specified rates controls (C) or suppresses (S) the following weeds:

Weeds		Broadcast Rate Specifications (Lbs. Product per Treated Acre)	
Common Name	Scientific Name	0.5-2.5 lbs./A	2.5-5 lbs./A
Anoda, Spurred	<i>Anoda cristata</i>	C	C
Bahiagrass (seedling)	<i>Paspalum notatum</i>	C	C
Barley, Wild	<i>Hordeum leporinum</i>	C	C
Barnyardgrass	<i>Echinochloa crus-galli</i>	C	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	S	S
Bermudagrass	<i>Cynodon dactylon</i>	S	S
Bluegrass, Annual	<i>Poa annua</i>	C	C
Brome, Downy	<i>Bromus tectorum</i>	C	C
Buckwheat, Wild	<i>Polygonum convolvulus</i>	C	C
Camphorweed	<i>Heterotheca subaxillaris</i>	S	C
Carpetweed	<i>Mullugo verticillata</i>	C	C
Cheat	<i>Bromus secalinus</i>	C	C
Chickweed, Common	<i>Stellaria media</i>	C	C
Cocklebur, Common	<i>Xanthium strumarium</i>	S	S
Crabgrass	<i>Digitaria</i> spp.	C	C
Croton, Tropic	<i>Croton glandulosus</i>	C	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	S	C
Cudweed, Purple	<i>Gnaphalium purpureum</i>	C	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C	C
Dayflower, Spreading	<i>Commelina diffusa</i>	S	C
Dogfennel	<i>Eupatoria capillifolium</i>	C	C
Falsedandelion	<i>Pyrrhopappus carolinianus</i>	C	C
Fescue, Tall	<i>Festuca arundinacea</i>	C	C
Fiddleneck	<i>Amsinckia intermedia</i>	C	C
Filaree*	<i>Erodium</i> spp.	C	C
Fingergrass, Feather	<i>Chloris virgata</i>	C	C
Fleabane, Hairy	<i>Conyza bonariensis</i>	S	S
Flixweed	<i>Descurainia sophia</i>	C	C
Foxtails	<i>Setaria</i> spp.	C	C
Geranium, Carolina (Wild)	<i>Geranium carolinianum</i>	C	C
Goldenrod	<i>Solidaga altissima</i>	S	C
Goosegrass**	<i>Eleusine indica</i>	C	C
Grama, Sixweeks	<i>Bouteloua barbata</i>	C	C
Groundsel	<i>Senecio vulgaris</i>	S	S
Guineagrass (seedling)	<i>Panicum maximum</i>	S	C
Henbit	<i>Lamium amplexicaule</i>	S	S
Horseweed (Marestail)	<i>Conyza canadensis</i>	S	S
Johnsongrass (rhizome)	<i>Sorghum halepense</i>	S	S
Johnsongrass (seedling)	<i>Sorghum halepense</i>	C	C
Junglerice	<i>Echinochloa colona</i>	C	C
Kochia	<i>Kochia scoparia</i>	S	S
Lambsquarters, Common	<i>Chenopodium album</i>	S	S
Mallow, Common	<i>Malva neglecta</i>	S	S

Weeds		Broadcast Rate Specifications (Lbs. Product per Treated Acre)	
		0.5-2.5 lbs./A	2.5-5 lbs./A
Common Name	Scientific Name		
Mallow, Little	<i>Malva parviflora</i>	C	C
Mallow, Venice	<i>Hibiscus trionum</i>	S	S
Morningglories	<i>Ipomoea spp.</i>	S	S
Muhly, Wirestem	<i>Muhlenbergia frondosa</i>	S	S
Mustard, Black	<i>Brassica nigra</i>	C	C
Mustard, Tumble (Jimhill)	<i>Sisymbrium altissimum</i>	C	C
Mustards	<i>Brassica spp.</i>	C	C
Natalgrass (seedling)	<i>Rhynchelytrum repens</i>	S	C
Nettle, Stinging	<i>Urtica dioica</i>	C	C
Nightshade, Silverleaf	<i>Solanum elaeagnifolium</i>	S	S
Nutsedge, Purple	<i>Cyperus rotundus</i>	S	S
Nutsedge, Yellow	<i>Cyperus esculentus</i>	S	S
Onion, Wild	<i>Allium canadense</i>	C	C
Orchardgrass	<i>Dactylis glomerata</i>	S	S
Pangolagrass (seedling)	<i>Digitaria decumbens</i>	S	C
Panicum, Fall	<i>Panicum dichotomiflorum</i>	C	C
Panicum, Texas	<i>Panicum texanum</i>	C	C
Pepperweed, Virginia	<i>Lepidium virginicum</i>	C	C
Pigweeds	<i>Amaranthus spp.</i>	S	S
Pineappleweed	<i>Matricaria matricariodes</i>	C	C
Plantains	<i>Plantago spp.</i>	S	S
Poorjoe	<i>Diodia teres</i>	S	S
Puncturevine	<i>Tribulus terrestris</i>	C	C
Purslane, Common	<i>Portulaca oleracea</i>	C	C
Pusley, Florida	<i>Richardia scabra</i>	C	C
Quackgrass	<i>Agropyron repens</i>	S	S
Ragweed, Common	<i>Ambrosia artemisiifolia</i>	S	S
Rescuegrass	<i>Bromus catharticus</i>	C	C
Rockpurslane, Desert	<i>Calandrinia ciliata</i>	C	C
Ryegrass, Italian (Annual)	<i>Lolium multiflorum</i>	C	C
Sage, Lanceleaf (Mintweed)	<i>Salvia retroflexa</i>	S	S
Sandburs	<i>Cenchrus spp.</i>	S	S
Sedge, Annual	<i>Cyperus compressus</i>	C	C
Senna, Coffee	<i>Cassia occidentalis</i>	S	S
Sesbania, Hemp	<i>Sesbania exaltata</i>	S	S
Shepherdspurse	<i>Capsella bursa-pastoris</i>	C	C
Sicklepod	<i>Cassia obtusifolia</i>	S	S
Sida, Prickly	<i>Sida spinosa</i>	C	C
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	S	S
Sowthistle, Annual	<i>Sonchus oleracea</i>	S	S
Sprangletop, Bearded	<i>Leptochloa fascicularis</i>	C	C
Spurge, Prostrate	<i>Euphorbia humistrata</i>	C	C
Spurge, Spotted	<i>Euphorbia maculata</i>	S	S
Thistle, Russian	<i>Salsola iberica</i>	S	S
Torpedograss	<i>Panicum repens</i>	S	C

Weeds		Broadcast Rate Specifications (Lbs. Product per Treated Acre)	
Common Name	Scientific Name	0.5-2.5 lbs./A	2.5-5 lbs./A
Vaseygrass (seedling)	<i>Paspalum urvillei</i>	S	C
Velvetleaf	<i>Abutilon theophrasti</i>	C	C
Witchgrass	<i>Panicum capillare</i>	C	C

* Treat prior to germination and incorporate with water on coarse and medium soils for adequate control.

** Including dinitroaniline (DNA)-tolerant goosegrass.

ROTATIONAL CROPS

Use the following time interval restrictions before planting rotational or replacement crops in land treated with SOLICAM DF.

Replacement or Rotational Crop	Geographical Area	Rotational Interval*	Notes	
Alfalfa	All use areas except AZ and CA	16 months	Alfalfa can be planted as a rotational crop the year following broadcast rates of SOLICAM DF up to 2.5 lbs./A. Visual symptoms of injury (whitening in leaf veins) and stand reduction may occur, up to 16 months.	
		At least 16 months	Following broadcast rates greater than 2.5 lbs./A, plant only after a test planting, as described for "All other crops" below.	
	AZ and CA	At least 16 months	Following broadcast rates not greater than 1.25 lbs./A.	
	AZ and CA	At least 24 months	Following broadcast rates greater than 1.25 lbs./A, plant alfalfa only after a test planting, as described below for "All other crops".	
Cotton	All use areas except AZ and CA	30 days	Cotton can be planted as a replacement crop (e.g., following hail damage, etc.). A light reworking of the soil is recommended to remove existing plant material and maintain herbicidal activity.	
		12 months	Cotton can be planted as a rotational crop the year following broadcast rates of SOLICAM DF up to 2.5 lbs./A.	
		At least 16 months	If the broadcast rate of SOLICAM DF was greater than 2.5 lbs./A, plant cotton only after test planting, as described below for "All other crops".	
	AZ	30 days	Cotton can be planted as a replacement crop (e.g., following hail damage, etc.). Replanting in AZ requires irrigating up, so irrigation must be every other row.	
		12 months	In AZ, only cotton is recommended as a rotational crop the following year, and only when the SOLICAM DF broadcast rate was 1.25 lbs./A or less.	
		At least 24 months	If the broadcast rate was greater than 1.25 lbs./A, plant cotton only after test planting, as described below for "All other crops".	
	CA	At least 24 months	Plant cotton only after a test planting, as described below for "All other crops".	
	Cover Crops	All use areas	3 months	SOLICAM DF treated acreage may be planted to a cover crop to control soil erosion. Cover crops planted in treated areas may be injured and must not be harvested, grazed, or fed to livestock for 16 months following the last application.
	Peanuts	Mid-South, Southeast, and TX (east of I-35)	30 days	Peanuts can be planted as a replacement crop (e.g., following hail damage, etc.). A light reworking of the soil is recommended to remove existing plant material and maintain herbicidal activity.
12 months			Peanuts may be planted as a rotational crop the next year, following broadcast rates of SOLICAM DF up to 2.5 lbs./A.	

Replacement or Rotational Crop	Geographical Area	Rotational Interval*	Notes
		At least 16 months	If the broadcast rate of SOLICAM DF was greater than 2.5 lbs./A, plant only after test planting, as described below for "All other crops".
	TX (west of I-35), southwest OK, and NM	30 days	Peanuts can be planted as a replacement crop (e.g., following hail damage, etc.). Visual symptoms of injury (whitening in leaf veins) and stand reduction may occur.
		12 months	As a rotational crop, peanuts can be planted the next year, following broadcast rates up to 1 lb./A. Visual symptoms of injury (whitening in leaf veins) and stand reduction may occur.
		At least 16 months	Following rates above 1 lb./A, plant peanuts only after a test planting, as described below for "All other crops".
Soybeans	Mid-South, Southeast, and TX (east of I-35)	45 days	Soybeans can be planted as a replacement crop (e.g., following hail damage, etc.). A light reworking of the soil is recommended to remove existing plant material and maintain herbicidal activity.
		12 months	Soybeans can be planted as a rotational crop the year following broadcast rates of SOLICAM DF up to 2.5 lbs./A.
		At least 16 months	If the broadcast rate of SOLICAM DF was greater than 2.5 lbs./A, plant only after test planting, as described below for "All other crops".
	TX (west of I-35), southwest OK, and NM	12 months	As a rotational crop, soybeans may be planted the next year, following broadcast rates up to 1 lb./A. Visual symptoms of injury (whitening in leaf veins) and stand reduction may occur up to 16 months.
		At least 16 months	Following rates above 1 lb./A, plant soybeans only after a test planting, as described below for "All other crops".
Tree Fruits and Nuts, Caneberries, Grapes, Asparagus, and Hops	Refer to Table 1 in this label for information regarding planting these replacement crops, as well as the "Special Use Directions and Exceptions" list below Table 1.		
All other crops; i.e., not target crops on the label	All use areas	At least 24 months	Plant only after a test planting/bioassay of the next intended crop shows no signs of phytotoxicity (whitening in the leaf veins) for 4 months after emergence. This test planting must be done to determine if the soil is free of residues of SOLICAM DF.

* "Rotational Interval" is the time interval from application of this product (at recommended rates) until planting, to avoid rotational or replacement crop injury, or illegal residues.

APPLICATION PROCEDURES

APPLICATION METHODS

Preplant Incorporated Application (PPI) and Preplant Applications (PP) for cotton: Apply SOLICAM DF at the specified rate prior to planting. Incorporate PPI applications within one week after application and not deeper than 2-3 inches.

Preemergence Surface Applications (PRE) for cotton, soybeans, and peanuts: Apply SOLICAM DF at the specified rate prior to the emergence of the crop and weeds. Do not apply when the crop is at or near emergence (soil cracking). Emerged weeds must be controlled mechanically or by tank mixing with a postemergence herbicide, such as Gramoxone Inteon® or glyphosate (Touchdown®).

Split Application - for cotton and soybeans: First apply 1/2 of the SOLICAM DF rate preplant incorporated, then apply the remaining 1/2 of the SOLICAM DF rate preemergence surface as specified above.

The soil surface should be free of clods and existing weeds prior to SOLICAM DF application. Use tillage or a postemergence herbicide to control emerged weeds.

Dry Bulk Fertilizer/SOLICAM DF Blends for Use in Cotton

SOLICAM DF may be coated onto dry bulk granular fertilizers for fall or spring early preplant surface, preplant incorporated, or preemergence applications. Coating may be conducted by either an in-plant bulk system or the on-board system. Individuals or agents selling SOLICAM DF in dry bulk fertilizer blends are responsible for following all state and local regulations regarding fertilizer/herbicide blending. Rate specifications, restrictions, and weeds controlled are the same as for the sprayable product.

Be sure to slurry the desired amount of SOLICAM DF in an adequate amount of water (3 pts. water per lb. of SOLICAM DF) required to uniformly cover the fertilizer particle. Apply slurry to fertilizer, using any closed rotary-drum mixer or other commonly used dry fertilizer blender. Spray nozzles must be positioned to provide uniform coverage of SOLICAM DF onto fertilizer during mixing.

Addition of a drying agent may be necessary if the fertilizer/herbicide blend is too wet for uniform application due to high humidity, high urea concentration, and/or low fertilizer use rate. Slowly add the drying agent to the blend until a flowable mixture is obtained. Drying agents are not recommended for use with on-board systems.

Apply 200-750 lbs. of fertilizer/herbicide blend per acre. Application must be made uniformly to the soil to prevent possible crop injury and to assure satisfactory weed control. Coated fertilizer spread at 1/2 rate and overlapped to obtain a full rate will

insure a more uniform distribution. A shallow (1 to 2-inch) incorporation is desirable for improved weed control. Deeper incorporation may result in unsatisfactory weed control.

Formula to determine herbicide used per ton of fertilizer:

$$\frac{\text{lbs. of product per acre}}{\text{lbs. of fertilizer per acre}} \times 2000 = \text{lbs. of herbicide per ton of fertilizer}$$

SPRAY EQUIPMENT

Ground Application

SOLICAM DF should be applied at the specified rate in 10 or more gals. of water per acre using a carefully calibrated fixed-boom sprayer. Filters with screen sizes of 50-mesh or larger should be used. Applications may be made in citrus using ring drench techniques or chemigation through low volume sprinkler or drip irrigation systems (see **Special Directions for Citrus and Almonds** for additional information). Chemigation can only be used in citrus crops.

Row/Band Treatment Calculation

When applying a row (or banded) treatment of SOLICAM DF, the following formula may be used to calculate the amount per acre:

$$\frac{\text{Width of sprayed band in inches}}{\text{Distance between rows in inches}} \times \begin{matrix} \text{Pounds per acre for broadcast} \\ \text{treatment} \end{matrix} = \begin{matrix} \text{Pounds per acre for row} \\ \text{treatment} \end{matrix}$$

The solution should be mixed to the maximum label rate and at no point on the field should the solution be applied at a concentration any higher than this rate.

Aerial Application

SOLICAM DF may be applied by aircraft for weed control in alfalfa, cotton (except in AZ), peanuts, and soybeans. Apply the specified rate in 5 or more gals. of water per acre. To minimize drift, use SOLICAM DF with a drift control agent such as Nalco-Trol[®].

Aerial Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outermost nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information** section below.

Aerial Drift Reduction Advisory Information

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity**, and **Temperature Inversions**).

Controlling Droplet Size

- **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 Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 ft. above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

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

Wind

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

MIXING PROCEDURES

Clean and calibrate the sprayer before preparing spray suspension. Add SOLICAM DF to the spray tank 3/4 filled with the required volume of water. This will eliminate or minimize foaming. Maintain agitation while filling and spraying. If a bypass line is used, discharge at the bottom of the tank to further minimize foaming.

Do not allow SOLICAM DF spray mixture to remain in the spray tank overnight.

Tank Mixes

SOLICAM DF may be tank mixed with other herbicides and liquid fertilizer. Some tank mix options for SOLICAM DF are listed in each crop section. Herbicides used as tank mix partners must be registered for use on crop where application is intended. When tank mixing, read and follow the label of each product for precautionary statements, directions for use, weeds controlled, and geographic and other restrictions.

Predetermine the compatibility of labeled tank mixes with your source of water by mixing small proportional quantities in advance.

Herbicide Formulation	Amount of Herbicide to Add to One Pt. of Water (Assuming Volume is 25 Gals. per Acre)	
	Label Rate Per Acre	Amount to Mix (Level Teaspoons)
Dry	1.0 lb.	1.5
Liquid	1.0 pt.	0.5

If, after vigorous shaking, the mixture does not ball-up or form flakes, sludge, gels, oily films, layers, or other precipitates, the mix is compatible. Incompatibility symptoms will usually occur within 5 minutes after mixing.

If components are incompatible, consult with your local agricultural chemical dealer for the use of an acceptable compatibility agent. Rerun the above compatibility test with a suitable compatibility agent (0.25 teaspoon is equivalent to 2 pts./100 gals. of water).

Products should be added to the spray tank in the following order:

1. Wettable powders and water-dispersible granules. Wettable powders should be premixed in a small amount of water. Water-dispersible granules should be added during filling. Mix thoroughly before other products are added.
2. Flowable liquids
3. Emulsifiable concentrates
4. Surfactants

Begin adding wettable powders, flowable liquids, emulsifiable concentrates, and surfactants after the spray tank is 3/4 full. Continue agitation during the addition of all the materials and while filling and spraying.

CROP AND FARMSTEAD USE DIRECTIONS

ALFALFA

SOLICAM DF can be used for weed control in alfalfa in the states of AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NV, OK, OR, SC, TN, TX, WA, and the portions of CO, KS, and MO south of I-70. Refer to **Weeds Controlled and Suppressed** in the **PRODUCT INFORMATION** section.

Use Restrictions and Precautions

SOLICAM DF is only recommended for preemergent weed control in established alfalfa; do not apply to seedling alfalfa until it has emerged and been actively growing for 3 months.

Do not apply SOLICAM DF within 28 days before alfalfa harvest.

Soil disturbances, such as rodent burrowing and fire ant mounding, may result in temporary bleaching or reduced growth in alfalfa treated with SOLICAM DF.

Do not apply to alfalfa planted with small grain or grass companion cover, unless injury to the companion crop is acceptable. Alfalfa seed germinating after SOLICAM DF is activated in the soil will not become established.

Application Timing and Rates

SOLICAM DF may be applied to healthy stands of established alfalfa at 1.25 lbs./A; do not apply to seedling alfalfa until it has emerged and been actively growing for 3 months. An additional 1.25 lbs./A may be applied later in the first crop year to extend late season weed control.

Application in each of the following crop years may be made at 1.25-2.5 lbs./A, depending upon weed pressure, soil texture, and cultural practices:

- Use the lower rate on coarse soils (sand, loamy sand, sandy loam) and when low populations of easily controlled annual weeds are expected.
- Use the higher rate on medium- to fine-textured soils (sandy clay through clay) and when heavier weed pressure is expected. The 2.5 lbs. maximum annual rate may be applied in a single application or in split applications.

Do not apply more than 2.5 lbs./A per calendar year.

Incorporation by rainfall, irrigation, or tillage (for example, by spring tine, disk, or spike tooth harrow) is necessary to activate SOLICAM DF in soil before weed seeds germinate and emerge. A minimum of 1/2-1 inch of rainfall or irrigation is necessary to incorporate SOLICAM DF.

Application may be made during dormancy, as long as soil is not frozen or in actively growing stands. On nondormant alfalfa, application should always follow mowing and removal of hay to ensure spray reaches the soil surface. In nonirrigated areas which have less than 15 inches annual moisture (rainfall and snow combined) or less than 4 inches spring rainfall, fall or winter applications are recommended. Fall or winter applications are necessary for control of winter annual weeds.

Established weeds or weeds that emerge before activation may be controlled with postemergent herbicides that are registered/labeled for use in alfalfa.

Tank Mixes for Alfalfa

SOLICAM DF may be tank mixed with any of the following products that are labeled for use on alfalfa. Read and follow directions for use, precautionary statements, and rates of application of these tank mix partners.

Product	Active Ingredient
Butyrac®	2,4-DB
Gramoxone Inteon	paraquat
Pursuit®	imazethapyr
Velpar®	hexazinone
Sinbar®	terbacil
Sencor®	metribuzin
Treflan®, Trilin®	trifluralin
Eptam®	EPTC
Poast®	sethoxydim
Kerb®	pronamide
Karmex	diuron

COTTON

SOLICAM DF can be used for weed control in all cotton producing states, except CA.

(See **Weeds Controlled and Suppressed** in the **PRODUCT INFORMATION** section.)

The specific Directions for Use of SOLICAM DF are given below for each geographic region of use (refer to **Geographic Information** in the **PRODUCT INFORMATION** section). Select the rate of SOLICAM DF to be used based on soil texture and application type within each geographic region from the sections listed below. Follow the **Special Directions** sections for specific recommendations and precautions.

Do not graze or feed cotton forage. SOLICAM DF must be applied and incorporated by tillage, irrigation, or rainfall before weeds germinate.

Special Directions for the Mid-South, Southeast, and TX (East of I-35)

Cotton Broadcast Rates in Lbs. of SOLICAM DF Per Acre*

Soil Texture	PPI	PRE	Split PPI/PRE
clay loam, silty clay loam, silty clay, clay	2.5	2.5	1.25/1.25
loam, silt loam, silt, sandy clay loam, sandy clay	1.9	1.9	0.95/0.95
Coastal Plains soils (Southeastern states)	1.25***	1.9**	0.95**/0.95**
sand, loamy sand, sandy loam	1.25	1.25	0.625/0.625

* Rates shown are for broadcast or treated acres. Be sure to adjust amount of product per planted acre if using a band application. (See the **Application Equipment** section.)

** Higher specified rates are listed for improved control on coarse-textured Coastal Plains soils of Southeastern states.

*** Do not use rates higher than 1.25 lbs. PPI on coarse-textured Coastal Plains soils of the Southeast.

Special Directions for TX (West of I-35), Southwest OK, and NM

Broadcast Rates in Lbs. of SOLICAM DF Per Acre*

Soil Texture	PRE
FINE - clay loam, silty clay loam, silty clay, clay	0.6 - 1.0**
MEDIUM - loam, silty loam, silt, sandy clay loam, sandy clay	0.6 - 1.0**
COARSE - sandy loam	0.6

* Rates shown are for broadcast or treated acres. Be sure to adjust amount of product per planted acre when using a band application. (See the **Application Equipment** section.)

** Applications must be made on a 10 to 14-inch band for SOLICAM DF rates above 0.6 lb./A. The 0.6 lb./A rate may be applied as a banded or broadcast application.

At the specified rates for this geographic region, SOLICAM DF should be applied preemergence in a tank mix with one of the herbicides listed below in order to give an adequate spectrum of weed control. SOLICAM DF should be applied alone **only** at the 1.0 lb./A rate and **only** as a sequential overlay following a PPI treatment of Prowl or Treflan. See below for tank mix options.

Shallow incorporation with finger tines on the planter (scratch incorporation) at planting is recommended for all banded preemergence SOLICAM DF applications.

Do not use on cotton grown on soil with greater than 65% sand content. Do not use on cotton planted in furrow bottom. Do not use on glandless cotton varieties.

Special Directions for AZ

SOLICAM DF may be applied as a preplant incorporated (PPI) herbicide for added suppression of nutsedge and morningglory when used in tank mixtures with Caparol herbicide. A banded preplant incorporated application can be made. Be sure to adjust the amount of product per planted acre when using a band application. (See the **Application Equipment** section.) In AZ, apply SOLICAM DF preplant incorporated only.

Do not apply to cotton by air in AZ.

Broadcast Rates in Lbs. of SOLICAM DF Per Acre

Soil Texture	PPI
FINE - clay loam, silty clay loam, silty clay, clay	1.25
MEDIUM - loam, silt loam, silt, sandy clay loam, sandy clay	0.95
COARSE - sand, loamy sand, sandy loam	0.625

Do not exceed 0.60 lb./A on soils with 65% or more sand. Shallow incorporation to a depth of 1-2 inches is required. Seed placement must be below incorporation zone.

Cotton irrigated up should receive irrigation in every other furrow following planting to avoid crop injury.

Cotton replanted following SOLICAM DF application should receive irrigation in every other furrow only.

SOLICAM DF can be tank mixed with Caparol 4L, Treflan HFP, or Prowl as part of a PPI program. Follow labels of tank mix herbicide for specific rate recommendations, timing, and use precautions.

Do not use on glandless cotton varieties.

Failure to observe these directions may result in temporary whitening of cotton or stand thinning.

SOLICAM DF Combinations in Cotton

SOLICAM DF tank mix or overlay combinations approved for cotton are, fluometuron (Cotoran®, Meturon®), Gramoxone Inteon, Lorox, Prowl, glyphosate (Touchdown), trifluralin (Treflan HFP, Trilin), and Caparol. Read and follow the **Mixing Instructions** section. Follow labels of tank mix herbicide for specific rate recommendations, timing, and use precautions.

SOLICAM DF + Caparol 4L Tank Mix

Special preemergence tank mix for improved suppression of Annual Morningglory, Lanceleaf Sage, Prairie Sunflower, Annual Black Nightshade, and Nutsedge.

SOLICAM DF Broadcast Tank Mix Rate per Treated Acre*

Soil Texture	SOLICAM DF + (lbs./A)		Caparol 4L** (pts./A)
FINE - clay loam, silty clay loam, silty clay, clay	0.6 - 1.0	+	2.4
MEDIUM - loam, silt loam, silt, sandy clay loam, sandy clay	0.6 - 1.0	+	2.4
COARSE - sand, loamy sand, sandy loam	DO NOT USE		

* Applications must be made on a 10 to 14-inch band for SOLICAM DF rates above 0.6 lb./A. The 0.6 lb./A rate may be applied as a banded or broadcast application. Rates shown are for tank mix broadcast (treated) acres. Be sure to adjust amount of product per planted acre when using a band application. (See the **Application Equipment** section.)

**Do Not Use SOLICAM DF tank mix with Caparol 4L on soils containing more than 50% sand.

These combinations may be tank mixed with Prowl and applied preemergence or applied as a sequential overlay following a trifluralin or Prowl application. Shallow incorporation with finger tines on the planter (scratch incorporation) at planting is recommended for all banded preemergence SOLICAM DF tank mix combinations.

Areas of the Mid-South, Southeast, TX (East of I-35), and AZ

SOLICAM DF may also be tank mixed with Caparol in areas of the mid-South, Southeast, TX (east of I-35), and AZ. **Note:** Caparol has special restrictions as regards soil type. Carefully read and observe all the directions for use, precautions, and limitations on the Caparol label.

Areas of TX (West of I-35), Southwest OK, and NM

Observe all precautions listed under **Special Directions for Areas of TX (West of I-35), Southwest OK, and NM**. In these areas, do not use SOLICAM DF plus Caparol tank mix as a PPI or split application.

Special Directions for Cotton Conservation Tillage Programs

SOLICAM DF may be used in conservation tillage programs such as no till, minimum till, or reduced till. The following additional directions should be followed to avoid crop injury and obtain optimum weed control with SOLICAM DF in conservation tillage programs:

- Do not use in TX (west of I-35), southwest OK, and NM in conservation tillage programs where the soil is greater than 65% sand.
- Use a postemergence herbicide, such as Gramoxone Inteon or Glyphosate (Touchdown), prior to application of SOLICAM DF or tank mix SOLICAM DF with these products to control emerged weeds.
- Any cover crop must be killed, using an appropriate postemergence herbicide prior to planting. Poor weed control may result if the cover crop is incompletely killed or excessive plant debris is present when SOLICAM DF is applied.
- Cotton seed should be planted at least 1 inch deep using a planter having a bubble or ripple-type coulter with a straight leading edge and press wheel (a fluted coulter should not be used). The seed must be covered with at least 1 inch of soil following the planter press wheel. Avoid situations where water will pond over the seed row. Crop injury will occur if seed is not adequately covered with soil or water ponds over the seed row.

PEANUTS

SOLICAM DF can be used for weed control in peanuts only in the states of AL, FL, GA, MS, NC, NM, OK, SC, TX, and VA.

SOLICAM DF will control certain grass and broadleaf weeds when applied preemergence at planting. (See **Weeds Controlled and Suppressed** in the **PRODUCT INFORMATION** section.) Only one application per crop is allowed in peanuts and this application must be made at planting. SOLICAM DF must be applied and incorporated by tillage, irrigation, or rainfall before weeds germinate.

For use only on runner type or Virginia-type peanut cultivars, including 'Florunner', 'GK-7', 'GA-Runner', 'Southern Runner', 'NC 7', 'VA 93B', 'NC 9', 'NC-V11', 'VA-C 92R', 'AgraTech VC-1', and 'NC 10C'.

Do not use SOLICAM DF in other states or on Spanish peanut cultivars. Crop tolerance of cultivars not listed on this label may not be acceptable.

Broadcast Rates for Peanuts

East of the Mississippi River	1.5 -1.8 lbs. of SOLICAM DF per treated acre (Apply preemergence only)
West of the Mississippi River	0.5 lb. of SOLICAM DF per treated acre (Apply preemergence only)

Use the higher recommended rate when SOLICAM DF is used alone or on fine-textured soils, or where populations of susceptible weeds are very heavy. Use of rates higher than 0.5 lb. SOLICAM DF west of the Mississippi River may result in crop injury and is not recommended.

Apply as a preemergence surface application immediately after planting and before weeds or crop emerge.

Use Restrictions and Precautions

- Do not use on peanuts that were treated preplant incorporated with Vernam, as crop injury may result. Do not apply SOLICAM DF when peanuts are near cracking, at cracking, or emerged, as crop injury may result. Make only one application per year.
- Crop injury may result from the use of SOLICAM DF following Dual Magnum® when used on very coarse-textured soils, such as sand.
- Delaying applications of postemergence herbicides, such as Gramoxone Inteon, may be advisable if severe crop whitening is observed (greater than 50%). Do not apply in areas with poor drainage.

Temporary whitening of the peanut leaves may occur. If the peanut plant is not stressed by adverse environmental factors or diseases, this whitening generally dissipates within 4-6 weeks after planting. Early season whitening of peanuts from SOLICAM DF does not result in significant crop stunting, stand reduction, or yield loss, if the plants are not stressed by environmental conditions, improper cultural practices, or diseases. High levels of seedling disease, adverse environmental stress, or improper application may result in increased levels of crop whitening or injury.

Sequential Applications/Tank Mixes in Peanuts

Read and follow **all** label directions for other herbicides listed below used in either sequential applications or as tank mix partners with SOLICAM DF for specific rate recommendations, application timing, precautions, and restrictions.

Application of SOLICAM DF to freshly tilled soil will give optimum weed control with crop safety. However, if weeds are emerged at the time of application, use a suitable burndown agent, such as Gramoxone Inteon (paraquat), to control emerged weeds. The burndown herbicide may be applied prior to or tank mixed with the SOLICAM DF treatment.

SOLICAM DF is especially useful for control of Florida beggarweed when in weed control programs that utilize cultivation or both preemergence and postemergence herbicides.

SOLICAM DF can be applied as a sequential overlay treatment following a preplant incorporated application of Balan® DF, Sonalan® HFP, Prowl, or Dual Magnum. Do not apply SOLICAM DF to peanuts that have been treated with Vernam because of increased potential for crop injury. SOLICAM DF may be applied preemergence in tank mixes with Dual Magnum or Lasso® to increase preemergence control of the “difficult-to-control species,” such as Florida beggarweed and yellow nutsedge, and broaden the spectrum of species controlled.

Under most conditions, a burndown application of Gramoxone Inteon (or tank mixes of Gramoxone Inteon and Basagran® and/or 2,4-DB) applied early postemergence will improve residual control of Florida beggarweed obtained with SOLICAM DF by removing Florida beggarweeds that germinated or emerged prior to the activation of SOLICAM DF. Sequential applications of Classic®, Pursuit, and Butoxone® (2,4-DB) may be used following SOLICAM DF to control tolerant weeds.

SOYBEANS

SOLICAM DF can be used for weed control in soybeans in the states of AL, AR, FL, GA, KY, LA, MS, MO, NC, OK, SC, TN, TX, and VA. Refer to **Weeds Controlled and Suppressed** in the **PRODUCT INFORMATION** section.

Soybeans should be planted to a depth of 1-2 inches and soil firmly packed above and around the seed bed.

Use Restrictions and Precautions

Do not use in sand, loamy sand, or sandy loam soils, except in the Coastal Plains area of the Southeast. (Do not use PPI or split treatments for soybeans in the Coastal Plains area.) In other areas, do not use the PPI treatment for soybeans, unless as part of the split application treatment. Do not use in soybeans in TX (west of I-35) or southwest OK, or NM.

Do not graze or harvest soybean forage or hay within 90 days of last SOLICAM DF application.

SOLICAM DF must be applied and incorporated by tillage, irrigation, or rainfall before weeds germinate.

Soybean Broadcast Rates in Lbs. of SOLICAM DF Per Acre*

Soil Texture	PRE	Split PPI/PRE
clay loam, silty clay loam, silty clay, clay	2.5	1.25/1.25
loam, silt loam, silt, sandy clay loam, sandy clay	1.9	0.95/0.95
Coastal Plains soils (Southeastern states)	1.25	DO NOT USE

* Rates shown are for broadcast or treated acres. Be sure to adjust amount of product per planted acre if using a band application. (See the **Application Equipment** section.)

Tank mix or overlay combinations may provide improved control of hard to control broadleaf weeds. See the following **Combinations** sections for specific recommendations.

SOLICAM DF Combinations in Soybeans

Approved SOLICAM DF tank mix or overlay combinations for soybeans include acifluorfen (Blazer®), alachlor (Lasso), Basagran, Canopy®, Classic, Dual Magnum, Gramoxone Inteon, Lorox, metribuzin (Sencor), Prowl, glyphosate (Touchdown), Scepter®, Storm®, and trifluralin (Treflan HFP, Trilin). See tank mix product label for recommended rate, application timing, and precautions. Read and follow the **Mixing Procedures** section.

Special recommendations for certain SOLICAM DF combinations are as follows:

SOLICAM DF + Scepter or Canopy – Preemergence Tank Mix

These combinations can be used alone, PRE, or as part of the split application. They are especially recommended for improved control of cocklebur, annual morningglories, hemp sesbania, sicklepod, smartweeds, and common ragweed.

Apply a tank mix of SOLICAM DF + Scepter or Canopy preemergence at the rate per treated acre listed in the following table. Refer to respective Scepter or Canopy label for specific directions, rates, and restrictions.

Broadcast Product Use Rates

Soil Texture	SOLICAM DF lbs./A	Scepter pts./A	Canopy oz./A
Mississippi Delta only (fine-textured soil)	1.25 - 1.50*- 1.90	See Scepter or Canopy for specific rates	
clay loam, silty clay loam, silty clay, clay	1.25 - 1.50*- 1.90		
loam, silt loam, silt, sandy clay loam, sandy clay	1.25 - 1.50		
Coastal Plains soils (coarse-textured soils – SE)	1.25		

* optimum rate

SOLICAM DF Preemergence + Scepter or Classic – Postemergence Overlay

Postemergence overlay treatments of Classic or Scepter following SOLICAM DF preemergence are recommended for increased control of problem broadleaf weeds, such as cocklebur and annual morningglories. Apply SOLICAM DF preemergence or as a split application at the combination rates listed above. Apply Scepter or Classic at the proper rate and postemergence timing as directed by its respective use directions. Refer to overlay product label for specific use directions and restrictions.

SOLICAM DF + Sencor – Preemergence Tank Mix

This combination is recommended for improved control of hemp sesbania, common ragweed, Venice mallow, and other broadleaf weeds.

Apply a tank mix of SOLICAM DF + Sencor (metribuzin) preemergence surface at the rates per acre (broadcast) recommended in the following table. These rates represent optimum SOLICAM DF rates and $\frac{1}{2}$ of the normal metribuzin rate. Use the metribuzin use rates (grower use rates) most applicable to local soil type and growing conditions.

Soil Texture	SOLICAM DF lbs./A	Sencor DF lbs./A		
		less than 2% OM	2 - 4% OM	over 4% OM
Mississippi Delta only (fine-textured soil)	1.25 - 1.50* - 1.90	0.50 - 1.0	0.58 - 1.17	0.665 - 1.33
clay loam, silty clay loam, silty clay, clay	1.25 - 1.50* - 1.90	0.33 - 0.83	0.425 - 1.0	0.50 -1.17
loam, silt loam, silt, sandy clay loam, sandy clay	1.25 - 1.50	0.25 - 0.66	0.33 - 0.83	0.425 -1.0
Coastal Plains soils (coarse-textured soils – SE)	1.25	Do not use	0.25 - 0.50	0.33 -0.66

* optimum rate

When using Sencor 4 convert to equivalent rates. The amount of Sencor DF or equals $\frac{2}{3}$ the amount of Sencor 4. For example, 1.0 pt. of Sencor 4 equals $\frac{2}{3}$ lb. of Sencor DF.

Refer to the Sencor label for further directions and precautions.

TREE FRUITS AND NUTS, CANEBERRIES, GRAPES, AND HOPS

SOLICAM DF selectively controls weeds (see **Weeds Controlled and Suppressed** in the **PRODUCT INFORMATION** section) in these crops. Apply as a directed spray to the soil. Avoid contact with fruit or foliage. Do not apply when nuts or fruits are on the ground at harvest. The soil should be settled, firm, and relatively free of weeds and debris at the time of application. Soil should be free of depressions around trees or grapevines where rain or irrigation water can concentrate.

SOLICAM DF must be moved into the weed seed germination zone to be effective. If no rainfall occurs within 4 weeks after application, the product must be incorporated by flood or sprinkler irrigation.

Loss of pigment (whitening) of leaf veins may occur in almonds, cherries, and grapes grown in coarse-textured soils when SOLICAM DF is applied within 3 months after bud break.

Multiple or sequential applications can be made, but the total quantity of SOLICAM DF applied during a year must not exceed the maximum recommended rate for that crop and soil texture. Rainfall or irrigation is necessary to incorporate SOLICAM DF after each application.

SOLICAM DF is recommended for application using at least 20 gals. of water per acre with suitable nozzles and pressure for directed ground application. Applications at less than 20 gals. should use appropriate low volume application equipment. Supplemental applications may also be made in citrus using ring drench techniques or chemigation through low volume sprinkler or drip irrigation systems. (See **Special Directions for Citrus and Almonds** for additional information.) **Chemigation can only be used in citrus crops.**

Read mixing, application, and specific crop sections for additional recommendations and precautions. The following table lists the maximum rate of SOLICAM DF that can be used per year based on crop, soil texture, and location of use. (Read sections following for additional recommendations and precautions.)

Table 1: Maximum SOLICAM DF Rates (Lbs. of Product per Treated Acre per Year) by Soil Texture

Crop	Coarse		Medium	Fine	Months after Planting to First Allowed Application (West/East of the Mississippi River)	Months after Application to Planting of Replacement Crop (West/East of the Mississippi River)	Special Use Directions & Exceptions (see list below)	Pre-Harvest Interval (PHI) (Days)
	Sand, Loamy Sand	Sandy Loam	Loam, Silt Loam, Silt, Sandy Clay Loam	Sandy Clay, Clay Loam, Silty Clay Loam, Silty Clay, Clay				
Citrus	2.5 - 5.0	2.5 - 5.0	3.75 - 5.0	5.0	0/0	0/0	2	30
Irrigated Citrus (FL and TX only)	2.5 - 10.0	2.5 - 10.0	3.75 - 10.0	5.0 - 10.0	0/0	0/0	1, 2	30
Apples	2.5 - 5.0	2.5 - 5.0	5.0	5.0	0/0	0/0	3	60
Hops/ Blueberries	2.5	2.5	3.75	5.0	0/6*	12/12	3, 11	60
Avocados Filberts	2.5	2.5	3.75	5.0	6/6	12/12	3	60
Asparagus	2.5	3.75	3.75 - 5.0	3.75 - 5.0	12/12	0/0	3, 9	14
Nectarines	2.5	2.5	3.75	5.0	18/6	18/12	3, 6, 12	60
Peaches	2.5	2.5	3.75	5.0	18/6	18/12	3, 6, 12	60
Pecans	2.5	2.5	3.75	5.0	18/6	18/12	3, 6, 12	60
Apricots Blackberries Pears Plums Prunes Raspberries	2.5	2.5	3.75	5.0	18/12	18/12	3, 7, 12	60
Walnuts	2.5	2.5 - 3.25	3.75 - 5.0	5.0	18/12	18/12	3, 7	60
Almonds	1.25	2.5	3.75	5.0	18/18	18/18	3, 4, 5, 8	60
Cherries	Not Recommended	2.5	3.75	5.0	18/18	18/18	3, 4	60
Grapes	1.25	2.5	3.75	5.0	24/24	24/24	3, 4, 5, 10	60

* See footnote 11.

Restrictions and Precautions

1. In FL and TX, sequential applications of up to 5 lbs. of SOLICAM DF per acre may be made during a 4-month period. Do not exceed 10 lbs./A for each 12-month period. In FL citrus, a single 10 lbs./A ring drench application may be used.
2. Do not apply to germinating seed beds in which citrus seed has or will be planted or where citrus is interplanted with palm trees. See following section for ring drench application directions.
3. Nursery situations: to avoid plant injury, do not apply until the fall following the first full season of field growth after transplanting or the number of months designated in the above table, whichever is longer. Do not apply to cherry, grape, or caneberry nurseries.
4. Loss of pigment (whitening) in leaf veins may occur on almonds, cherries, or grapes grown in coarse-textured soils when SOLICAM DF is applied within 3 months after bud break.
5. A registered tank mix partner may be required for broad spectrum control.
6. A higher rate of 3.75 lbs./A of SOLICAM DF may be used in coarse-textured Coastal Plains soils of the Southeast.
7. Apply to blackberries and raspberries during the dormant season. Temporary loss of pigment (whitening) in leaf veins may occur with normal use.
8. See following sections for pre-harvest application directions for almonds.
9. See **Asparagus Use Directions**.
10. Do not apply to wine grapes grown in coarse soil in the State of WA.
11. SOLICAM DF may be applied immediately after planting **hops** grown in ID, OR, and WA. SOLICAM DF application to hops in other states west of the Mississippi River should be made at least 6 months after planting. SOLICAM DF may be applied immediately after planting **blueberries** grown west of the Cascades, but an interval of 6 months should be retained from planting to first SOLICAM DF application east of the Cascades but west of the Mississippi River.
12. Do not use in stone fruits on the western slope of CO.

Special Instructions for Citrus and Almonds

Almonds – Pre-Harvest Application

SOLICAM DF may be used as a soil-applied preemergence treatment prior to almond harvest. SOLICAM DF applied in this manner should be incorporated with 0.5 inches of irrigation water prior to weed germination and shaking or nut drop. SOLICAM DF must be moved into the weed seed germination zone to be effective. If no rainfall occurs within 4 weeks after application, the product must be incorporated by flood or sprinkler irrigation.

Citrus – Ring Drench Application (FL Citrus Only)

Apply SOLICAM DF to newly planted (nonbearing) citrus as a ring drench treatment at the rate of 10 lbs. of product broadcast per acre. Make only one application per year. Consult the following table for the ounces of SOLICAM DF to add to a 500-gal. water tank for various diameter rings.

Table 2: Ounces of SOLICAM DF per 500 Gals. for Ring Drench Application

	Diameter of Ring (ft.)		
	3	4	5
3 gals./tree (167 trees/tank)	4.3	7.6	12.0
5 gals./tree (100 trees/tank)	2.6	4.6	7.2
7 gals./tree (71 trees/tank)	1.8	3.3	5.2
10 gals./tree (50 trees/tank)	1.3	2.3	3.6

Citrus – Chemigation (Citrus Crops Only)

Low volume sprinkler – 4-50 gals. per hour (gph) per emitter, drip – 0.5-3 gph per emitter. Point of application should be above ground.

Irrigation system should run a sufficient amount of time prior to SOLICAM DF injection to have all emitters functioning properly. After system is operating properly, length of injection should be such that at one period of time during the injection, the first and last emitters in the system contain SOLICAM DF-treated water. Add SOLICAM DF to the supply tank already filled with the volume of water required for the injection period (this should be at least 4 gals. for each lb. of SOLICAM DF used). Maintain proper agitation in SOLICAM DF injection tank.

SOLICAM DF should be mixed in clean water and injected down-line from filters. Following SOLICAM DF injection, system should be flushed for a period of time sufficient to clear the line of SOLICAM DF. (If SOLICAM DF application is made during a normal irrigation cycle, injection should be made during the late stage.)

Apply this product only through low volume sprinkler (micro sprinkler) and drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. Do not connect an irrigation system used for pesticide application to a public water system unless the prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person must shut the system down and make necessary adjustments should the need arise.

Application of SOLICAM DF through irrigation systems should be used as a supplemental weed control practice. The addition of SOLICAM DF through irrigation systems will help prevent weed escapes at the irrigation point when the application is made before weed seeds germinate.

Chemigation Calibration (Citrus Crops Only)

Calculation of use rate is based on **wetted area** around emitters – **NOT** on tree acres. To determine correct amount of SOLICAM DF, use the following formula:

1. Treated area per each emitter = A
 $A = 3.14 \times (\text{radius} \times \text{radius})$

Example: If the average distance from emitter to perimeter of wetted area, measured one inch below soil surface is 13 inches, then

$$A = 3.14 \times (13" \times 13")$$

$$A = 3.14 \times (169")$$

$$A = 530.7 \text{ sq. in.}$$

2. The area in sq. ft. wet in each acre = B

$$B = \frac{A \times \text{emitters/acre}}{144}$$

Example: If there are 300 emitters per acre, then

$$B = \frac{530.7 \times 300}{144} = B = 1105.6 \text{ sq. ft. wetted per acre}$$

3. The total area (in sq. ft.) wet by your system = C
 $C = B \times \text{acres covered by system}$

Example: If the system covers 20 acres, then

$$C = 1105.6 \text{ sq. ft. per acre} \times 20 \text{ acres}$$

$$C = 22,112 \text{ sq. ft. wetted by system}$$

4. Amount of SOLICAM DF to inject = S Rate per treated acre of SOLICAM DF = R

$$S = \frac{C}{43,560} \times R = \text{Lbs. of SOLICAM DF}$$

Example: If the desired application rate per treated acre is 2.0 lbs. of SOLICAM DF, then

$$S = \frac{22,112}{43,560} \times 2.0 = S = 1.02 \text{ lbs. of SOLICAM DF should be injected into the system}$$

Note: Select the proper rate (R) based on soil texture, weeds to control, and length of control required. The total amount of SOLICAM DF applied in a season from broadcast, ring drench, and/or supplemental chemigation applications cannot exceed the maximum rate stated in the **Maximum SOLICAM DF Rates Table**.

Precautions for All Sprinkler or Drip Chemigation Applications

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where

there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Application when drift may occur, such as from windy conditions, or when system joints and connections are leaking, or when nozzles are not providing uniform distribution, may cause crop injury.
9. Application should be directed in such a way that SOLICAM DF does not come into contact with foliage.

Additional Precautions for Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There must be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. All chemigation systems connected to public water systems must also follow restrictions listed in the preceding **Precautions for All Sprinkler or Drip Chemigation Applications** section.

Tank Mix Recommendations for Certain Tree Fruits and Nuts, Caneberries, and Grapes

Tank mixes are usually required to control the entire spectrum of weeds found in a particular grove, orchard, or vineyard. Tank mix herbicides must be registered for use on crop where application is intended (Refer to the **Tank Mix** section of this label for specific directions).

Tank mix products for use with SOLICAM DF may include diuron (Karmex), glyphosate (Touchdown), Goal[®], Gramoxone Inteon, bromacil (Hyvar[®]), Krovar[®] I and II, simazine (Princep[®]), or Surflan[®] A.S. if the herbicide is registered for the intended crop and use pattern. SOLICAM DF tank mix combinations should **not** include more than one of the following herbicides: diuron, Hyvar, Krovar, or simazine.

Tank mix herbicide(s) must be registered for use on crops where application is intended. The following table summarizes some of the common tank mix options with SOLICAM DF by crop (√ = tank mix option). If a tank mix is not listed below, but both products have that crop individually listed on their label, you may use that combination in accordance with the directions for use for each product.

Table 3: Example of Tank Mix Combinations by Crop

	diuron	Goal	Gramoxone Inteon	Hyvar	Krovar	Prowl	glyphosate (Touchdown)	simazine	Sinbar	Surflan
Almonds		√	√			√	√	√		√
Apples	√	√	√			√	√	√	√	√
Apricots		√	√			√	√			√
Avocados		√	√				√	√		√
Blackberries	√		√					√	√	√
Blueberries	√		√					√	√	√
Cherries		√	√			√	√	√		√
Citrus	√	√*	√	√	√	√	√	√	√	√
Filberts		√	√				√	√		√
Grapes	√	√	√			√	√	√		√
Nectarines		√	√			√	√			√
Peaches	√	√	√			√	√	√	√	√
Pears	√	√	√			√	√	√		√
Pecans	√	√	√				√	√	√	√
Plums		√	√			√	√	√		√
Prunes		√	√			√	√			√
Raspberries	√		√					√	√	√
Walnuts	√	√	√			√	√	√		√

* For use in nonbearing citrus

Tank mix with a postemergence herbicide, such as Gramoxone Inteon or glyphosate (Touchdown), when emerged weeds are present. Diuron (Karmex), Goal, Hyvar, Krovar I, and Krovar II may provide postemergence control of certain weeds in addition to their residual preemergence control. Other herbicides listed for tank mix combinations will provide only preemergence activity. For control of additional weeds, products must be applied prior to weed emergence. Consult the use directions of the tank mix herbicide for specific weeds controlled.

Read and follow the label of each tank mix herbicide used for precautionary statements, directions for use, weeds controlled, and geographic and other restrictions.

ASPARAGUS DIRECTIONS (EXCEPT AZ AND CA)

The soil should be settled, firm, and relatively free of weeds and debris at the time of application. Soil should be free of depressions around asparagus where rain or irrigation water can concentrate.

SOLICAM DF must be moved into the weed seed germination zone to be effective. If no rainfall occurs within 4 weeks after application, the product must be incorporated by flood or sprinkler irrigation.

Apply SOLICAM DF in a minimum of 20 gals. of water per acre as a broadcast preemergence treatment. Use the rates listed in the following table. Do not apply within 14 days of harvest. SOLICAM DF should not be applied if crop rotation is expected within 24 months (see the **Rotational Crop** section for additional precautions).

Allow newly planted fields (direct seeded, seedlings, or crowns) to become established for one season before application of SOLICAM DF.

Improved results may be obtained if crop debris is incorporated or removed prior to application.

Select the rate of SOLICAM DF to use from the following table:

Table 4: Asparagus: Maximum SOLICAM DF Rates (Lbs. of Product Per Treated Acre per Year) by Soil Texture

Crop	Coarse		Medium	Fine	Months after Planting to First Allowed Application	Months after Application to Planting of Rotational Crop
	Sand, Loamy Sand	Sandy Loam	Loam, Silt Loam, Silt, Sandy Clay Loam	Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay		
Asparagus	2.5	3.75	3.75-5.0	3.75-5.0	12	24

Tank Mix Recommendations for Asparagus

Tank mix herbicides must be registered for use on crop where application is intended (Refer to the **Tank Mix** section of this label for specific directions).

SOLICAM DF may be tank mixed with other herbicides registered for use in asparagus, such as Banvel[®], diuron (Karmex), Gramoxone Inteon, Lorox, Roundup, metribuzin (Sencor[®]), simazine (Princep), trifluralin (Treflan[®] HFP), or 2,4-D (amine), when a broader spectrum of weeds would be expected. Consult the label(s) of the individual tank mix product(s) for specific recommendations on rate, application timing, weed species, and crop safety. Follow directions, restrictions, and precautions listed on the respective tank mix product label.

FARMSTEAD USES

SOLICAM DF may be used for preemergence weed control in noncrop land areas including: ungrazed fence lines, equipment lots, ditchbanks above the high water line, driveways, on-farm roads, turn rows, and other on-farm noncrop land areas. Refer to the list of **Weeds Controlled and Suppressed** in the **PRODUCT INFORMATION** section.

Apply SOLICAM DF at a rate of 2.5-5 lbs. of product per treated acre for farmstead areas. Higher rates within the range should be used for fine-textured soils and where longer residual is desired.

Since SOLICAM DF is a preemergence herbicide, it must be applied to the soil surface before weeds germinate. Existing weeds should be mechanically removed or controlled with a suitable postemergence herbicide. SOLICAM DF must be incorporated into the soil by rainfall or sprinkler irrigation within 4 weeks of application for best weed control.

Tank Mix Recommendations for Farmstead Uses

Tank mix herbicides must be registered for use on farmstead areas where application is intended. (Refer to the **MIXING PROCEDURES** section of this label for specific directions.)

Tank mix combinations may be desired for broader spectrum preemergence control or postemergence control of emerged weeds or woody shrubs. SOLICAM DF may be tank mixed with Arsenal[®], atrazine, Banvel[®], diuron (Karmex), Garlon[™], glyphosate (Touchdown), Gramoxone Inteon, Hyvar, Krovar, Oust[®], Spike[™], simazine (Princep), Surflan A.S., Telar[®], Velpar, or 2,4-D (amine). Refer to the use directions of the respective tank mix herbicide for additional weeds controlled, rates, and precautions.

STORAGE AND DISPOSAL

Pesticide Storage

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

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or hazardous waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

WARRANTY AND LIMITATION OF DAMAGES

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