

34704-847

3/18/2009

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:

34704-847

Date of Issuance:

18 MAR 2009

NOTICE OF PESTICIDE:

Registration
[X] Reregistration
(under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Savana

Name and Address of Registrant (include ZIP Code):

Loveland Products, Inc.
P. O. Box 1286
Greeley, CO 80632-1286

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is reregistered in accordance with FIFRA section 4(g)(2)(C) provided you:

- 1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data
2. Make the following changes to the product label:
a. Per the acute toxicity review, child resistant packaging (CRP) is required for this product.
b. Revise the heading from "Inert Ingredients" to "Other Ingredients" and align the percentage value so that it is lined up with the other values.
c. A Note to Physician must be added below the First Aid section that reads: "Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage." Additionally, the Agency recommends that additional text be added to the Note to Physician that addresses eye irritation concerns.
d. Revise the Personal Protective Equipment (PPE) text to read the following:
"Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber, neoprene rubber, or viton. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Signature of Approving Official:

Joanne Miller
Product Manager 23
Herbicide Branch
Registration Division (7505P)

Joanne S. Miller

Date:

18 MAR 2009

All mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt, and long pants,
- Shoes and socks,
- Protective eyewear,
- Chemical-resistant gloves when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate, and
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.”

- e. The mechanical transfer engineering control text is no longer needed and should be removed from the label.
- f. Add the Engineering Control text “Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40CFR 170.240 (d)(6).”
- g. Move the User Safety Requirements text “Follow manufacturer’s instructions for cleaning/maintaining PPE...Keep and wash PPE separately from other laundry” from the User Safety Recommendations box and place it directly below the PPE section.
- h. Revise the second User Safety Recommendations statement to read “Users should remove clothing/**PPE** immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.”
- i. Revise the first sentence of the Environmental Hazards statement to read “This pesticide is toxic to fish and aquatic invertebrates.” Remove the phrase “except as noted on appropriate labels” from the second sentence.
- j. Remove the Non-Agricultural Use Requirements text “Use Requirements for Pastures, Perennial Grasslands, Rangeland, Fallow land and NonCrop Areas... or for research purposes, follow Agricultural Use Requirements on this label.” and replace with the text “Do not enter or allow people or pets to enter the treated areas until sprays have dried.” Correct the typo “lants” to “plants” in the second sentence.
- k. Move the statement “Do not contaminate water, food, or feed by storage and disposal.” from the Pesticide Storage section and place it directly below the Storage and Disposal heading.
- l. Revise the word “recommended” to “listed”, “directed”, or “labeled” when it is used to describe application rates and spray volumes in all instances throughout the label.
- m. Make the following changes to the **Corn** directions:
 - i) Under General Restrictions, revise to read “Do not use treated crop as fodder for 7 days following application. **Field and Pop Corn:** The preharvest interval (PHI) is 7 days. Maximum of 153.6 fl. oz./acre (3 lbs ae/acre) per crop cycle. **Sweet Corn:** The preharvest interval (PHI) is 45 days. Maximum of 76.8 fl. oz./acre (1.5 lbs ae/acre)

- per crop cycle. Minimum interval of 21 days between applications. Do not make preharvest applications.”
- ii) Under Corn Preplant Application Rates for coarse-textured soils, revise the lb ae/acre from “0.75” to “0.5”.
 - iii) Under Corn Preemergence Application Rates for fine or medium-textured soils, revise the lb ae/acre from “0.75” to “0.625”. For coarse-textured soils, revise the lb ae/acre from “0.75” to “0.25”.
 - iv) Under Preplant Preemergence Restrictions, revise sentence to read “Maximum of 51.2 fl. oz./acre (1 lb ae/acre) per application.”
 - v) Under Postemergence Restrictions, revise sentence to read “Maximum of 25.6 fl. oz./acre (0.5 lb ae/acre) per application.”
 - vi) Under Corn Postemergence Application Rates, revise the lb ae/acre from “.12 to .37” “.125 to .375” and from “.18 to .37” to “.187 to .375”.
 - vii) Under Preharvest, add a new section titled “Preharvest Restrictions” with the relocated text “Do not forage or feed corn fodder for 7 days following application...Maximum of 76.8 fl. oz./acre (1.5 lbs ae/acre) per application.”
 - viii) Under Postharvest, revise the sentence to read “To aid in suppressing these weeds before a hard freeze, apply SAVANA at 25.6 to 51.2 fl. oz./acre (.5 to 1.0 lb ae/acre) either alone or in combination...”
 - ix) Under Postharvest, revise the sentence to read “See PLANTING IN TREATED AREAS and FALLOWLAND sections for application restrictions.”
- n. Make the following changes to the **Sorghum (Milo)** directions:
- i). Under Postemergence, move the restriction “Do not treat during the boot, flowering, or early dough stages.” under the Postemergence Restrictions section.
 - ii) Remove the restriction “Do not forage or feed fodder for 7 days following application.”
 - iii) Under Postemergence Restrictions, revise the last sentence to read “Use a maximum of 51.2 fl. oz./acre (1.0 lb ae/acre) per application.”
- o. Make the following changes to the **Small Grains** directions:
- i) Under General Restrictions, include the maximum product rates per acre so it reads “Use a maximum of 64 fl. oz./acre (1.25 lbs ae/acre) per application.”, “Use a maximum of 25.6 fl. oz./acre (0.5 lb ae/acre) per application.”, and “Savana applications are limited to 89.6 fl.oz./acre (1.75 lbs ae/acre) per crop cycle.”
 - ii) Revise all “12.8 to 19.2 fl. oz.” rates from “(.25 to .37 lb ae)” to “(.25 to .375 lb ae)”.
 - iii) Revise all “6.4 to 19.2 fl. oz.” rates from “(.12 to .37 lb ae)” to “(.125 to .375 lb ae)”.
 - iv) Revise all “6.4 to 12.8 fl. oz.” rates from “(.12 to .37 lb ae)” to “(.125 to .25 lb ae)”.
 - v) Revise all “6.4 to 12.8 fl. oz.” rates from “(.12 to .25 lb ae)” to “(.125 to .25 lb ae)”.
 - vi) Revise all “12.8 to 25.6 fl. oz.” rates from “(.12 to .5 lb ae)” to “(.25 to .5 lb ae)”.
 - vii) Under Preharvest Treatment, revise the rate to read “Apply up to 25.6 fl. oz. (.5 lb ae) of SAVANA per acre when grains are in the hard dough stage...”
 - viii) Under Postharvest, revise the sentence to read “See PLANTING IN TREATED AREAS and FALLOWLAND sections for application restrictions.”

- p. Make the following change to the **Fallow Land, Grass Pastures, Grass Seed Crops, and Sod Farms** directions:
- i) Revise the restriction sentence to read "Use a maximum of 102.4 fl. oz./acre (2.0 lbs ae/acre) per application."
- q. Make the following changes to the **Soybeans** directions:
- i) Revise the application timing from "Not less than 7 days" to "Not less than 15 days", and from "Not less than 14 days" to "Not less than 30 days".
- r. Make the following changes to the **Rangeland Pastures** directions:
- i) Under Postemergence Restrictions, revise the sentence to read "For susceptible annual and biennial broadleaf weeds: Do not exceed 51.2 fl. oz./acre (1.0 lb ae/acre) per application."
 - ii) Under Postemergence Restrictions, revise the sentence to read "For difficult to control weeds and woody plants: Use 102.4 fl. oz./acre (2.0 lbs ae/acre) per application."
 - iii) Under Spot Treatment, revise the rate to read "Use 102.4 fl. oz./acre (2.0 lbs ae/acre)."
 - iv) Revise the general restriction to read "Do not exceed a maximum of 204.8 fl. oz./acre (4.0 lbs ae/acre) per year."
- s. Make the following changes to the **Rice** directions:
- i) Under General Restrictions and Postemergence, revise the rate to read "Use a maximum of 76.8 fl. oz./acre (1.5 lbs ae/acre) per crop cycle."
 - ii) Remove the 2,4-D RED restriction texts for Preplant, Wild Rice, and Wild Rice Postemergence if these uses are not intended for this product. Otherwise, revise to include the equivalent product rate.
- t. Make the following changes to the **Sugarcane** directions:
- i) Under General Restrictions, revise the rate to read "Do not apply more than 204.8 fl. oz./acre (4.0 lbs ae/acre) per crop cycle."
 - ii) Under Preemergence and Postemergence, revise the last sentence to read "Limited to one application per crop cycle. Do not apply more than 102.4 fl. oz./acre (2.0 lbs ae/acre) per application."
 - iii) Remove the Postharvest directions.
 - iv) Remove the text "Do not make more than 4 applications of Savana per season in accordance with State recommendations."
- u. Make the following changes to the **Stone Fruit, Nut, and Pistachio Orchards** directions:
- i) Revise the Postemergence restrictions to read "For all except filberts, limited to 2 applications per crop cycle, with a maximum of 102.4 fl. oz./acre (2.0 lbs ae/acre) per application. For filberts, limited to 4 applications per year, with a maximum of 51.2 fl. oz. (1.0 lb ae) per 100 gallons of spray solution per application. Wait a minimum of 30 days (Nut crops, Pistachios, and Filberts), 75 days (Stone fruits) between applications."
 - ii) Revise the heading "Important: Precautions When Applying 2,4-D in Orchards" by specifying which crop(s) it is referring to, since the restrictions are crop-specific.

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- v. Make the following changes to the **Forest Management** directions:
 - i) Revise the restriction sentence to read "Maximum of 204.8 fl. oz./acre (4.0 lbs ae/acre) per broadcast application."
 - ii) Under Basal spray, Cut Surface, revise the sentence to read "Maximum of 409.6 fl. oz. (8.0 lbs ae) per 100 gallons of spray solution."
 - iii) Under Injection, revise the sentence to read "Maximum of 2 ml of 204.8 fl. oz. (4.0 lbs ae) formulation per injection site."

- w. Make the following changes to the **Roadsides and Similar Noncrop Areas** directions:
 - i) Add the restriction "Postemergence (annual and perennial weeds): Limited to 2 applications per year. Maximum of 102.4 fl. oz./acre (2.0 lbs ae/acre) per application. Minimum of 30 days between applications."
 - ii) Add the restriction "Postemergence (woody plants): Limited to 1 application per year. Maximum of 204.8 fl. oz./acre (4.0 lbs ae/acre) per year."

- x. Make the following changes to the **Ornamental and Recreational Turfgrasses, Lawns, Golf Courses, Parks, Cemeteries** directions:
 - i) Remove the text "Refer to Turf Use Requirements in the Non-Agricultural Use Requirements section of this label."
 - ii) Add the restriction "Maximum of 76.8 fl. oz./acre (1.5 lbs ae/acre) per application. The maximum seasonal rate is 153.6 fl. oz./acre (3.0 lbs ae/acre), excluding spot treatments."
 - iii) Under Cool Season Grasses, revise from "(.5 to .7 lb ae)" to "(.5 to .75 lb ae)".

- y. Add the following statement to the label:

"Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al. v. EPA, C01-0132C, (W.D. WA). For further information, please refer to EPA Web Site: <http://www.epa.gov/espp>."

A stamped copy of your label is enclosed for your records. Submit one (1) copy of the revised final printed label for the record before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Enclosure



SAVANA Herbicide

ACC. D
with COMMENTS
in EPA Letter Dated

18 MAR 2009
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

34704-842

FOR CONTROL OF BROADLEAF WEEDS IN CERTAIN CROPS AND NONCROP AREAS

ACTIVE INGREDIENT:		
2,4-Dichlorophenoxyacetic acid	28%*
INERT INGREDIENTS:	72%
	TOTAL	100%

*Contains 2.5 lbs. of 2,4-Dichlorophenoxyacetic acid equivalent per U.S. gallon or 300 grams per liter.
*Contains 28% 2,4-Dichlorophenoxyacetic acid equivalent, by weight

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.)

EPA REG. NO. 34704-847
EPA EST. NO. 34704-MS-001
NET CONTENTS 2½ GALS. (9.46 L)

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EXP 11/07

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Corrosive, causes irreversible eye damage. Harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing spray mist.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on the EPA chemical resistance category selection chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:

Long-sleeved shirt and long pants, shoes and socks, plus chemical resistant gloves, when applying postharvest dips or sprays to citrus, applying with any hand-held nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate. Chemical resistant apron when applying postharvest dips or sprays to citrus, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See Engineering Controls for additional requirements.

Engineering controls statements:

When handlers use enclosed cabs or aircraft in a manner that meets with requirements in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

For containers over 1 gallon and less than 5 gallons in capacity:

Mixers and loaders who do not use a mechanical system (probe and pump, or spigot) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to other required PPE.

For containers of 5 gallons or more in capacity:

A mechanical system (probe and pump, or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4)], 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.

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.

FIRST AID

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.
If swallowed:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL:
1-800-301-7976.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

ENVIRONMENTAL HAZARDS

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark except as noted on appropriate labels. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

Groundwater Contamination:

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

Non-target plant precautions:

This herbicide may cause injury to desirable plants by contacting foliage, stems or roots. Use care in all applications to avoid surface water or soil transport to non-target plant areas. Avoid contamination of irrigation or domestic water supplies. Avoid applications in the vicinity of susceptible plants or when winds are blowing toward nearby susceptible plants, or when temperature inversions are expected. Avoid direct application or spray drift to susceptible plants since very small quantities of this herbicide can cause severe injury in the growing or dormant period. Plants contacted may be killed or suffer significant injury resulting in grade or yield losses. Do not apply in greenhouses.

DIRECTIONS FOR USE

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

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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.

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

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SAVANA Herbicide

EPA REG. NO. 34704-847

Agricultural Use Requirements cont'd.

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 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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, chemical-resistant gloves made of any water-proof material, shoes plus socks, protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

USE REQUIREMENTS FOR PASTURES, PERENNIAL GRASSLANDS, RANGELAND, FALLOW LAND AND NONCROP AREAS: Do not enter treatment areas until spray has dried. For early entry to treatment areas, wear eye protection, chemical-resistant gloves, long-sleeved shirt, long pants, socks and shoes.
TURF USE REQUIREMENTS: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried. NOTE: For application to turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes, follow AGRICULTURAL USE REQUIREMENTS on this label.

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Avoid contamination of fertilizers, seeds, plants, insecticides, and fungicides in storage. It is preferable to store all pesticides in a locked area. Containers with screw caps should be closed tightly when not in use. When transfer to another container, is necessary because of leakage or damage, carefully mark and identify contents of new container. If label is damaged or missing, contact dealer or manufacturer. Absorb spills with granular clay absorbent and dispose of as indicated under PESTICIDE DISPOSAL. If this product is stored below freezing, it is suggested that it be allowed to warm to at least 40° F. and be agitated before use.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. 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 DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for recycling, if available.

Containers less than 5 gallons in size: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Containers greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Bulk/Mini-bulk Containers: Refillable container. Refill this container with Savana Herbicide only. Do not reuse this container for any other purpose.

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

In Case of Spill: For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC - 1-800-424-9300.

Steps to be taken in case material is released or spilled: Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

GENERAL INFORMATION

SAVANA is an acid formulation of 2,4-D in a micro-emulsion forming concentrate (MFC). Acidifying agents and/or other additives are required for use with this product. Best results will be obtained when SAVANA is applied during warm weather to young weeds that are actively growing under good moisture conditions. Lowest recommended rates will generally be satisfactory on susceptible annual weed

seedlings. For listed perennial or biennial weeds and under certain conditions such as drought or cool temperatures where control is difficult, the higher recommended rates may be required. In general, only weeds emerged at the time of application will be affected.

When SAVANA is used for weed control in actively growing crops, the growth stage of the crop must be considered. Proper timing is required to obtain maximum crop tolerance and to avoid crop injury. Weed control and crop tolerance of this product may be affected by local conditions, crop varieties, cultural practices, application methods and other factors. Users should consult Agricultural Extension Services, agricultural experiment stations, university weed specialists, seed companies or other qualified crop advisors for information pertaining to local use. In general, weed control and crop tolerance will be best when plants have neither too little nor excessive moisture before or after application, and the crop is not under other stresses.

Certain states have regulations which may affect the use of this product. Contact your state pesticide authority for additional information.

MIXING INSTRUCTIONS

SAVANA is a micro-emulsion forming concentrate formulation intended for dilution in water for many applications. For certain specified applications, dilute liquid fertilizer or oil may replace part or all of the water as diluent.

If dry flowable (DF), wettable powder (WP) or flowable (F) tank mix products are to be used, these should be added last after microemulsion is formed and they should be pre-mixed with 1-2 parts water BEFORE adding to the tank mix. Refer to mixing directions on tank mix product labels. For best results, thoroughly clean sprayer immediately after use by flushing system with water and heavy duty detergent such as Loveland Industries, Inc. Tank & Equipment Cleaner.

Water Spray: To prepare a water spray mixture, fill clean spray tank about ½ to ¾ full with clean water. Then add SAVANA with agitation turned on. Continue agitation while adding balance of water and during spray operations. To maximize performance or compatibility the following must be added.

Adjuvant	Rate
PCC1174	5%- 1% v/v
Unite	0.5-1% v/v Loveland Industries
E-Z Mix	0.5-1% v/v Loveland Industries
LI700	0.25-1% v/v Loveland Industries

NOTE: This product forms a micro-emulsion in water and can separate upon prolonged standing. If spray mixture is allowed to stand, agitate it before use to assure uniformity.

Liquid Fertilizer Spray: Due to increased risk of crop foliage burn with fertilizer, use only as recommended on this label or supplemental labeling distributed for SAVANA. Use fertilizer rate recommended locally. SAVANA is formulated to be compatible with most dilute fertilizer solutions, however, due to variability in fertilizers, users may wish to perform a jar compatibility test before large scale mixing.

Water Spray With Oil: Use only as recommended on this label or supplemental labeling distributed for SAVANA. Where a combination of water and oil diluent is recommended, the use of emulsifiable crop oil or crop oil concentrate is suggested since mild agitation will be sufficient. Mix in the sequence of water acidifying agent, SAVANA, and emulsifiable oil last.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, air-blast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

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Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional requirements for aerial applications: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Additional requirements for ground boom application: Do not apply with a nozzle height greater than 4 feet above the crop canopy.

APPLICATION PROCEDURES

For all types of applications, use calibrated spray equipment to assure applying the recommended amount of SAVANA spray mixture per acre. Use sufficient spray volume within the ranges specified to obtain good coverage of weeds. SAVANA is absorbed sufficiently within 1 hour after application to provide adequate weed control.

Ground Broadcast Spray: Unless otherwise specified in the appropriate crop or non-crop directions, apply SAVANA in 5 or more gallons of spray solution per acre. Add acidifying agent to the tank to before adding SAVANA. Then add SAVANA to the spray solution. Use enough spray volume to provide uniform coverage of weeds, taking into account the amount of vegetation present and the type of application equipment to be used. As crop canopy and weed density increase, a higher spray volume may be needed for equivalent coverage and weed control. Typical crop applications utilize 10 to 50 gallons of spray per acre while certain high volume non-crop applications may utilize more than 100 gallons per acre. Use coarse sprays to minimize potential spray drift. Do not apply with hollow cone nozzles or other nozzles that produce fine spray droplets. Boom sprayers with flat fan or low volume flood nozzles are generally most suitable for ground broadcast applications.

Ground Band Spray: Determine band equivalents to broadcast rates and volumes by the following formulas:

Band width in inches x Broadcast = Band rate
Rate per acre per acre
Row width in inches
Band width in inches x Broadcast = Band vol.
Vol. per acre per acre
Row width in inches

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

Aerial Broadcast Spray: Unless otherwise specified in the appropriate crop or noncrop directions, apply SAVANA in 3 to 5 gallons of spray solution per acre. For best coverage and weed control, as well as reduced potential for spray drift, a minimum of 3 gallons per acre is suggested. Add acidifying agent to the spray solution before adding SAVANA. Avoid using nozzles or nozzle configurations that generate fine droplets. One configuration usually found to be suitable includes straight stream nozzles (such as disk with no swirl plate) directed straight back along the windstream. Mechanical flagging systems such as Automatic Flagman® are suggested to obtain more uniform application.

With fixed-wing or helicopter application, an exactly even swath deposition may not be achieved, and consequently crop injury or pesticide nonperformance may result wholly or in part. Do not apply by air during periods of thermal inversion. Avoid application if potential for drift is excessive and/or susceptible crops are growing in the vicinity.

WEED LISTS

SAVANA will control or partially control the following weeds in addition to many other susceptible noxious plants. Locally resistant biotypes of listed weeds may be suppressed, but tank mixing a herbicide with a different mode and site of action is advisable for such biotypes. Certain weeds, especially deep-rooted perennials and woody varieties, may require repeat applications of SAVANA for control or suppression. Re-growth of perennials may occur.

Weeds Controlled:

- | | | |
|------------------------------|---------------------------|--|
| Arrowhead | Croton (Texas, woolly) | Mallow (Venice, dwarf, little) |
| Artichoke | Dogfennel (mayweed) | Marestail |
| Blue thistle | Elderberry | Marshelder |
| Blueweed, Texas | Evening primrose, common | Mexican Weed |
| Boxelder | Evening primrose, cutleaf | Milk vetch |
| Bittercress, smallflowered | Fanweed | Morningglory (annual, common, ivy, woolly) |
| Blue lettuce | Figwort | Mousetail |
| Broomweed, common | Four o'clock | Mustards (except blue), prior to bolting |
| Bull nettle | Galinsoga | Pennycress (fanweed) |
| Burdock, common | (elderberry, hairy) | Pepperweeds (except perennial) |
| Burhead | Goatsbeard | Plantains |
| Buttercup, smallflowered | Healall | Poison ivy |
| Carolina geranium | Horsetail | Poorjoe |
| Carpetweed | Ironweed | Puncture vine |
| Catnip | Jerusalem artichoke | Purslane, common |
| Chickweed | Jewelweed | Quickweed |
| Chicory | Jimsonweed | Ragweeds (common giant) |
| Cinquefoil, common and rough | Klamathweed | Redstem |
| Cocklebur, common | Ladythumb | Rough fleabane |
| Coffeeweed | Lambsquarters, common | Shepherdspurse |
| Cornflower | Loco, Bigbend | |
| Creeping jenny | | |

- | | | |
|----------------------------|-----------------------|--------------------|
| Sicklepod | Sweetclover (annual) | Wild radish |
| Sneezeweed, bitter | Tumbleweed | Wild rape |
| Sowthistle (annual, spiny) | Velvetleaf | Wild sweet potato |
| Spanishneedles | Vetches, except hairy | Willow |
| Speedwell | Virginia copperleaf | Witchweed |
| Stinkweed | Wild hemp | Wormwood |
| Sumacs | Wild lettuce | Yellow goatsbeard |
| Sunflower | Wild mustard | Yellow rocket |
| | Wild parsnip | Yellow starthistle |

Weeds Partially Controlled (Higher rates and/or repeated applications may be needed):

- | | | |
|-----------------------------|-----------------------|---------------------------|
| Alfalfa | Ground ivy | Salsify (western, common) |
| Beggarticks | Hawkweed | Sand shinnery oak |
| Bindweeds (hedge, European) | Henbit | Smartweed, annual |
| Buckbrush | Hoary cress | Smartweed, Pennsylvania |
| Bull thistle | Knottweed | Tansyragwort |
| Canada thistle | Many-flowered aster | Vervains |
| Chamise | Manzanita | Vetch, hairy |
| Clover, red | Musk thistle | Western ironweed |
| Corn growmell | Nettles | Wild carrot |
| Coyotebrush | Peppergrass | Wild garlic |
| Dandelion | Prickly lettuce | Wild onion |
| Docks | Rabbitbrush | |
| Dogbanes | Russian thistle | |
| Goldenrod | Sage, coastal | |
| | Sagebrush (big, sand) | |

Weeds Partially Controlled And For Which Locally Resistant Biotypes May Occur:

- Pigweed

Weeds Suppressed When Another Labeled Herbicide Is Also Applied:

- Bindweed (field)
Russian knapweed

TANK MIXES

Unless otherwise prohibited on this label or the label of an intended tank mix product, SAVANA may be applied in combination with any herbicide registered for the same crop, timing, and method of application. Observe the most restrictive label statements of various tank mix products used. This product may be tank mixed with herbicides in the sulfonylurea family of herbicides provided the application is made within 12 hours of tank mixing.

LIABILITY FOR CROP INJURY RESULTING FROM A TANK MIXTURE NOT SPECIFIED ON THIS LABEL, OR SUPPLEMENTAL LABELING DISTRIBUTED FOR SAVANA, IS SPECIFICALLY DISCLAIMED BY PLATTE CHEMICAL CO.

COMPATIBILITY

Before full-scale mixing of this product with other herbicides, dilute fertilizer solutions and adjuvants, it is advisable to determine the compatibility of the proposed mixture.

Use proportionate quantities of each ingredient and mix in a small container. Always mix one product thoroughly with the diluent before adding another product. If no incompatibility is evident after 30 minutes, the mixture is generally compatible for spraying.

TANK MIX COMPATIBILITY & MIXING INSTRUCTIONS FOR SAVANA

Formulation Type	Abbreviation	Compatibility	Order of Addition	Comments
Emulsifiable Concentrate	EC	OK	Water, EZ-Mix or Unite Savana Tank Mix Partner	0.5%v/v
Flowables (SC's)	F or SC	OK	See above order	SC'S premix 1:1 with water and then add to tank.
Dry Flowable	DF or WDG	OK	See above order	DF's premix 1:1 in water and then add to tank.
Sulfonyl Urea's	SU	OK	See above order	Premix 1:1 in water Must be sprayed in 12 hours.
Amine Salt Formulations Concentrated Fertilizer	DMA, IPA, Na	OK	OK	Not compatible with Tordon
Dilute Foliar Fertilizer Sprays	—	OK	Water E-Z Mix or Unite Savana Fertilizer	Tested 10-34-0, 9-18-9, 3-18-18, 32-0-0, 2.5 gal. in 15 gpa spray with 24 oz. Savana
Notes	Always add adjuvant to water first then Savana to form micro-emulsion. Do not use Amads as adjuvant with tank mix partners that include any formulations other than an EC. For WDG's, SC's, WP's etc. tank mix partners Use EZ Mix or Unite.			

PLANTING IN TREATED AREAS

Labeled Crops: Within 29 days following an application of this product, plant only those crops named as use sites on this or other registered 2,4-D labels. Follow more specific limitations, if any, provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application, especially in the first 14 days. Degradation factors described below should be considered in weighing this risk.

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Other Crops: All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

Degradation Factors: When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application. Consult your local Agricultural Extension Service for information about susceptible crops and typical soil conditions in your area.

APPLICATIONS

Read all preceding general sections of label and NOTICE before use. Unless otherwise specified, applications may be made by ground or air equipment. Ground applications may provide more thorough coverage and better weed control. For selective postemergent weed control in crops, do not add oil, surfactant, fertilizer or other additives unless specifically recommended on this label or supplemental labeling distributed for SAVANA.

CORN (Field, Sweet and Pop)

SAVANA may be applied to corn at several different timings. In all cases, plant corn to a uniform depth of at least 1½ inches.

General Restrictions:

Do not use treated crop as fodder for 7 days following application. The preharvest interval (PHI) is 7 days. Maximum of 3 lbs ae/acre per crop cycle.

Preplant: To control existing broadleaf weed seedlings or burn down susceptible cover crops prior to planting, apply SAVANA from 7 to 14 days before planting. To control grasses and certain other problem weeds, it may be desirable to use a tank mixture with other herbicides. Liquid fertilizers and agriculturally approved surfactants may be added. Observe the most restrictive label statements of various tank mix products used. Use SAVANA rates according to the following table:

CORN PREPLANT APPLICATION RATES

Soil Texture	Organic Matter	Rate Per Acre	Lb AE/Acre
Fine or medium (silt and clay loams)	Less than 1%	Do not apply	
	1% or more	12.8 to 38.4 fl. oz.	0.25 to 0.75
Coarse (sand, sandy loam, loamy sand)	Less than 2%	Do not apply	
	2% or more	12.8 to 25.6 fl. oz.	0.25 to 0.75

Preemergence: To control small broadleaf weeds, apply SAVANA after planting, but before corn emerges. Liquid fertilizers and agriculturally approved surfactants may be added. Do not apply SAVANA preemergence if a preplant application of this product was made. Use SAVANA rates according to the following table:

CORN PREEMERGENCE APPLICATION RATES

Soil Texture	Organic Matter	Rate Per Acre	Lb AE/Acre
Fine or medium (silt and clay loams)	Less than 1%	Do not apply	
	1% or more	12.8 to 32 fl. oz.	0.25 to 0.75
Coarse* (sand, sandy loam, loamy sand)	Less than 2%	Do not apply	
	2% or more	12.8 fl. oz.	0.75

*Partial weed control may result on coarse soils due to lower rate.

Preplant Preemergence Restrictions

Limited to one preplant or preemergence application per crop cycle. Maximum of 1.0 lb ae/acre per application.

Postemergence

General Information: Do not apply with liquid fertilizer or oil. Many types of adjuvants will increase risk of crop injury. An acidifying agent is still required. Where an adjuvant is required because of tank mixing with another herbicide, use the lowest recommended concentration of a nonionic surfactant (often 0.25% vol./vol. or less) to minimize such risk. Treated crop may be brittle and subject to breaking by wind and/or cultivation, especially in the 2 weeks following SAVANA application.

Early Postemergence: To control small broadleaf weeds, apply SAVANA broadcast from spike to 4-leaf stage of crop or up to 8 inches tall, whichever comes first. Avoid spraying just after corn leaves unfold. Postemergence application should not follow a preplant or preemergence application by less than 3 weeks. Use SAVANA rates according to the table below.

Late Postemergence: Typical timing for this application is when most broadleaf weeds are no more than 4 to 6 inches tall and corn is between 8 and 16 inches tall. The timing can extend until corn is 36 inches tall or to tasseling, whichever occurs first, but weeds usually become too large and hard to control. Perennial weeds should be in the bud to bloom stage for best results. Apply as a directed spray using drop nozzles to keep spray off crop foliage. Do not apply from tasseling to hard dough stage.

Postemergence Restrictions

Limited to one postemergence application per crop cycle. Maximum of 0.5 lb ae/acre per application.

Use SAVANA rates according to the following table:

CORN POSTEMERGENCE APPLICATION RATES

Crop Stage	Comments	Rate Per Acre*	Lb AE/Acre
Spike to 4-leaf, or up to 8 inches tall	Early postemergence over-the-top broadcast spray. Ground or aerial application.	6.4 to 19.2 fl. oz.	.12 to .37
8 to 36 inches tall, before tasseling	Late postemergence directed spray using drop nozzles. Ground application only.	9.6 to 19.2 fl. oz.	.18 to .37

*Lowest rates may not provide adequate weed control unless used in a tank mixture with another registered herbicide.

Preharvest: After the hard dough (or denting) stage when silks have turned brown, apply 25.6 to 51.2 fl. oz. (.5 to 1.0 lb ae) of SAVANA per acre to suppress perennial weeds such as hemp dogbane or field bindweed, and many tall weeds such as cocklebur, pigweed and sunflower that interfere with harvest. Weed seed production will also be suppressed if SAVANA application is prior to the flowering stage of weeds. The high rate is recommended under dry conditions. Do not forage or feed corn fodder for 7 days following application. Do not apply with crop oil concentrate. Do not apply to sweet corn. Limited to one preharvest application per crop cycle. Maximum of 1.5 lbs ae/acre per application.

Postharvest: Following the harvest of corn, certain perennial or biennial weeds produce new fall growth. To aid in suppressing these weeds before a hard freeze, SAVANA may be applied at the rate of 25.6 to 51.2 fl. oz. (.5 to 1.0 lb ae) per acre either alone or in combination with other registered herbicides such as certain formulations of dicamba and picloram. See PLANTING IN-TREATED AREAS section. Follow more restrictive limitations, if any, for tank mix products used. (Need a tank mix test with many of the compounds.)

SORGHUM (Milo-Grain)

Postemergence: To control small broadleaf weeds, apply when sorghum is 6 to 15 inches tall to top of canopy. If sorghum is taller than 8 inches to top of canopy, use drop nozzles to keep spray off crop foliage. Do not treat during the boot, flowering or early dough stages. Do not forage or feed fodder for 7 days following application.

Post emergence restrictions: The preharvest interval (PHI) is 30 days. Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application. Limited to 1 post emergence application per crop cycle. Use a maximum of 1.0 lb ae/acre per application.

Use SAVANA rates according to the following table:

SORGHUM (Milo) POSTEMERGENCE APPLICATION RATES

Crop Stage	Comments	Rate Per Acre*	Lb AE/Acre
6 to 8 inches tall	Over-the-top broadcast spray. Ground or aerial application.	6.4 to 19.2 fl. oz.	.125 to .375
8 to 15 inches tall	Directed spray using drop nozzles. Ground application only.	9.6 to 19.2 fl. oz.	.187 to .375

*Lowest rates may not provide adequate weed control unless used in a tank mixture with another registered herbicide. Highest rates may have increased risk of injury.

SORGHUM-SUDAN GRASS HYBRIDS (Forage Crop Only)

Postemergence: To control small broadleaf weeds, apply SAVANA when sorghum-sudan has at least 6 leaves, is well established, and is 5 to 10 inches tall. Do not treat crop over 10 inches tall through maturity.

Plant Response: Even when SAVANA is sprayed at the proper stage, some crop injury is likely, including reduced seed production. If risk of crop injury is unacceptable, do not use this product. The lower rate may reduce the risk of crop injury, but will result in reduced weed control.

Livestock Feeding Restrictions: Do not feed fodder for 7 days following application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not graze dairy animals on treated areas within 7 days after application.

SORGHUM-SUDAN GRASS POSTEMERGENCE APPLICATION RATES

Crop Stage	Rate Per Acre	Lb AE/acre
At least 6 leaves, well established, 5 to 10 inches tall	12.8 to 25.6 fl. oz.	.25 to .5

9/14

10/14

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SMALL GRAINS (WHEAT, OATS, BARLEY, RYE) NOT UNDERSEEDED WITH A LEGUME

Apply SAVANA to small grains as directed below.

General Restrictions: The preharvest interval (PHI) is 14 days. Postemergence applications limited to one application per crop cycle. Use a maximum of 1.25 lbs ae/acre per application. Limit Preharvest applications to one application per crop cycle. Use a maximum of 0.5 lbs ae/acre per application. Savana applications are limited to 1.75 lbs ae/acre per crop cycle.

Livestock Feeding Restrictions: Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment. Do not feed treated straw to livestock if an emergency and/or pre-harvest treatment is applied.

Liquid Nitrogen Fertilizers: At full tiller, SAVANA may be combined with dilute liquid nitrogen fertilizers suitable for foliar application to small grains. Refer to MIXING INSTRUCTIONS section of label for further information. Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentration will reduce the hazard of foliage burn.

Spring Wheat and Barley

Onset of Tillering Stage: Grains are generally tolerant of these treatments, but risk of crop injury is greater than at full tillering stage. Do not make application if the risk of injury is unacceptable.

SAVANA

Apply 12.8 to 19.2 fl. oz. (.25 to .37 lb ae) of SAVANA per acre in the spring when grain has 1 or more tillers as well as 3 or more leaves. Do not apply from boot to dough stage.

SAVANA + Ally®

Refer to the Ally label for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 or more leaves. Use the labeled rate of Ally plus 12.8 to 19.2 fl. oz. (.25 to .37 lb ae) of SAVANA per acre. A non-ionic surfactant may be added at the rate of ½ to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant. Do not apply from boot to dough stage. See tank mixes for instructions.

SAVANA + Amber®

Refer to the Amber label for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 or more leaves. Use the labeled rate of Amber plus 12.8 to 19.2 fl. oz. (.25 to .37 lb ae) of SAVANA per acre. A non-ionic surfactant may be added at the rate of 1 to 2 quarts per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant. Do not apply from boot to dough stage. See tank mixes for instructions.

Full Tillering Stage: For these applications, full tillering stage is defined as follows: Grain should have 3 or more tillers and the flag leaf should not be visible.

SAVANA

Apply 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre when grain is in the full tiller stage (usually 4 to 8 inches tall). Do not apply from boot to dough stage.

SAVANA + Ally®

Refer to the Ally label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Ally plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of ½ to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for non-ionic surfactant. See tank mixes for instructions.

SAVANA + Amber®

Refer to the Amber label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Amber plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant should be added at the rate of 1 to 2 quarts per 100 gallons of spray mixture. Surfactant may be deleted if liquid fertilizer is at least 50% of the spray mixture, but weed control may be reduced on some species. The combination of surfactant and liquid fertilizer increases the risk of crop injury. See tank mixes for instructions.

SAVANA + Express®

SAVANA + Express® + bromoxynil

Refer to the Express and bromoxynil labels for complete directions and precautions. The crop stage for application of these tank mixtures is the full tiller stage as specified above. Use the labeled rate of Express plus 6.4 to 19.2 fl. oz. (.12 to .37 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 0.125% to 0.25% (vol./vol.). If liquid fertilizer is used, 0.06% to 0.25% (vol./vol.) nonionic surfactant is recommended. Control of certain weeds may be enhanced by adding ¼ to ½ pound active ingredient per acre of a bromoxynil product registered for such application. See tank mixes for instructions.

SAVANA + Finesse®

Refer to the Finesse label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Finesse plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 1 to 2 pints per 100 gallons of spray mixture. Do not use liquid fertilizer as a substitute for nonionic surfactant. The combination of surfactant and liquid fertilizer increases the risk of crop injury. See tank mixes for instructions.

SAVANA + Glean®

Refer to the Glean label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Glean FC plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of ½ to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer as a substitute for non-ionic surfactant. The combination of surfactant and liquid fertilizer increases the risk of crop injury. See tank mixes for instructions.

SAVANA + Harmony® Extra

Refer to the Harmony Extra label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Harmony Extra plus 6.4 to 12.8 fl. oz. (.12 to .37 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 0.125% to 0.25% (vol./vol.) proportional to the SAVANA rate used. If liquid fertilizer is used, 0.06% to 0.25% (vol./vol.) nonionic surfactant is recommended. See tank mixes for instructions.

SAVANA + bromoxynil

Control of certain weeds may be enhanced by adding ¼ to ½ pound active ingredient per acre of a bromoxynil product registered for such applications.

Emergency Weed Control: Higher rates, up to 51.2 fl. oz. (1.0 lb ae) of SAVANA per acre, may be needed to handle difficult weed problems in certain areas, such as under dry conditions especially in western areas. These higher rates increase the risk of crop injury. The severity of the weed problem should be balanced against the possibility of crop injury. Do not apply before the tiller stage nor from boot to dough stage.

Winter Wheat, Barley and Rye

Onset of Tillering Stage: Grains are generally tolerant of these treatments, but risk of crop injury is greater than at full tillering stage. Do not make application if the risk of injury is unacceptable.

SAVANA

Apply 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre in the spring when grain has 1 or more tillers as well as 3 or more leaves. Do not apply from boot to dough stage.

SAVANA + Ally®

Refer to the Ally label for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 or more leaves. Use the labeled rate of Ally plus 12.8 to 25.6 fl. oz. (.12 to .5 lb ae) of SAVANA per acre. A non-ionic surfactant may be added at the rate of ½ to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant. Do not apply from boot to dough stage. See tank mixes for instructions.

SAVANA + Amber®

This tank mixture is for winter wheat and barley. Refer to the Amber label for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 or more leaves. Use the labeled rate of Amber plus 12.8 to 25.6 fl. oz. (.12 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 1 to 2 quarts per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant. Do not apply from boot to dough stage. See tank mixes for instructions.

SAVANA + dicamba

Refer to the dicamba labels for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 to 5 leaves for wheat or rye and 3 to 4 leaves for barley. A nonionic surfactant may be added at the rate of ½ to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant.

SAVANA + STARANE

Refer to the STARANE labels for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 to 5 leaves for wheat or rye and 3 to 4 leaves for barley. A nonionic surfactant may be added at the rate of ½ to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant.

SAVANA + Ally® + dicamba

Refer to the Ally and dicamba labels for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 to 5 leaves for wheat or rye and 3 to 4 leaves for barley. Use the labeled rate of Ally plus 12.8 to 25.6 fl. oz. (.12 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of ½ to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant. See tank mixes for instructions.

SAVANA + Amber® + dicamba

This tank mixture is for winter wheat and barley. Refer to the Amber and dicamba labels for complete directions and precautions. The crop stage for application of this tank mixture is the onset of tillering stage defined as follows: Grain should have 1 or more tillers as well as 3 to 5 leaves for wheat or rye and 3 to 4 leaves for barley. Use the labeled rate of Ally plus 12.8 to 25.6 fl. oz. (.12 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 1 to 2 quarts per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant. See tank mixes for instructions.

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Full Tilling Stage: For these applications, full tilling stage is defined as follows. Grain should have 3 or more tillers and the flag leaf should not be visible.

SAVANA

Apply 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre when grain is in the full tiller stage (usually 4 to 8 inches tall). Do not apply from boot to dough stage.

SAVANA + Ally®

SAVANA + Ally® + dicamba

This tank mixture is for winter wheat and barley. Refer to the Ally and dicamba labels for complete directions and precautions. The crop stage for application of these tank mixtures is the full tiller stage as specified above. Use the labeled rate of Ally plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 1/2 to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant. See tank mixes for instructions.

SAVANA + Amber®

SAVANA + Amber® + dicamba

This tank mixture is for winter wheat and barley. Refer to the Amber and dicamba labels for complete directions and precautions. The crop stage for application of these tank mixtures is the full tiller stage as specified above. Use the labeled rate of Amber plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant should be added at the rate of 1 to 2 quarts per 100 gallons of spray mixture. Surfactant may be deleted if liquid fertilizer is at least 50% of the spray mixture, but weed control may be reduced on some species. The combination of surfactant and liquid fertilizer increases the risk of crop injury, balanced against the possibility of crop injury, especially at higher rates. Avoid spraying during or immediately following cold weather. See tank mixes for instructions.

SAVANA + Express®

SAVANA + Express® + bromoxynil

Refer to the Express and bromoxynil labels for complete directions and precautions. The crop stage for application of these tank mixtures is the full tiller stage as specified above. Use the labeled rate of Express plus 6.4 to 19.2 fl. oz. (.12 to .37 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 0.125% to 0.25% (vol./vol.). If liquid fertilizer is used, 0.06% to 0.25% (vol./vol.) nonionic surfactant is recommended. Control of certain weeds may be enhanced by adding 1/4 to 1/2 pound active ingredient per acre of a bromoxynil product registered for such application. See tank mixes for instructions.

SAVANA + Finesse®

Refer to the Finesse label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Finesse plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 1 to 2 pints per 100 gallons of spray mixture. Do not use liquid fertilizer as a substitute for nonionic surfactant. The combination of surfactant and liquid fertilizer increases the risk of crop injury. See tank mixes for instructions.

SAVANA + Glean® FC

Refer to the Glean FC label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Glean FC plus 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 1/2 to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer as a substitute for nonionic surfactant. The combination of surfactant and liquid fertilizer increases the risk of crop injury. See tank mixes for instructions.

SAVANA + Harmony® Extra

Refer to the Harmony Extra label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Harmony Extra plus 6.4 to 12.8 fl. oz. (.12 to .25 lb ae) of SAVANA per acre. A nonionic surfactant may be added at the rate of 0.125% to 0.25% (vol./vol.) proportional to the SAVANA rate used. If liquid fertilizer is used, 0.06% to 0.25% (vol./vol.) nonionic surfactant is recommended. See tank mixes for instructions.

SAVANA + STARANE

This tank mixture is for winter wheat and barley. Refer to the STARANE label for complete directions and precautions. The crop stage for application of these tank mixtures is the full tiller stage as specified above. A nonionic surfactant may be added at the rate of 1/2 to 1 quart per 100 gallons of spray mixture. Do not use liquid fertilizer in addition to or as a substitute for nonionic surfactant.

Emergency Weed Control: For improved control of difficult weeds and heavy weed infestations, apply up to 51.2 fl. oz. (1.0 lb ae) of SAVANA per acre. These higher rates increase the risk of crop injury. The severity of the weed problem should be balanced against the possibility of crop injury. Do not apply before the tiller stage nor from boot to dough stage.

Spring Seeded Oats

Full Tilling Stage: For these applications, full tilling stage is defined as follows. Grain should have 3 or more tillers and the flag leaf should not be visible. Oats are less tolerant to SAVANA than wheat or barley and present a greater risk of crop injury. The severity of the weed problem should be balanced against the possibility of crop injury. Larger weeds and hard-to-kill weeds may be poorly controlled, especially under dry conditions.

SAVANA

Apply 12.8 fl. oz. (.25 lb ae) of SAVANA per acre when grain is in the full tiller stage as specified above. Do not apply before the tiller stage nor from boot to dough stage.

SAVANA + Harmony® Extra

Refer to the Harmony Extra label for complete directions and precautions. The crop stage for application of this tank mixture is the full tiller stage as specified above. Use the labeled rate of Harmony Extra plus 6.4 to 12.8 fl. oz. of SAVANA per acre. A nonionic surfactant may be added at the rate of 0.125% to 0.25% (vol./vol.). If liquid fertilizer is used, 0.06% to 0.25% (vol./vol.) nonionic surfactant is recommended. The combination of surfactant and liquid fertilizer increases the risk of crop injury. See tank mixes for instructions.

Fall Seeded Oats (Southern) Grown for Grain

SAVANA

Apply 12.8 to 25.6 fl. oz. of SAVANA per acre after full tilling, but prior to joints forming in the stem. Do not apply until after full tilling nor from jointing to dough stage. Oats are less tolerant to SAVANA than wheat or barley and present a greater risk of crop injury. The severity of the weed problem should be balanced against the possibility of crop injury, especially at higher rates. Avoid spraying during or immediately following cold weather.

SAVANA + Harmony® Extra

Refer to the Harmony Extra label for complete directions and precautions. The crop stage for application of this tank mixture is after full tilling and prior to jointing as specified above. Use the labeled rate of Harmony Extra plus 6.4 to 19.2 fl. oz. of SAVANA per acre. A nonionic surfactant may be added at the rate of 0.125% to 0.25% (vol./vol.). If liquid fertilizer is used, 0.06% to 0.25% (vol./vol.) nonionic surfactant is recommended. The combination of surfactant and liquid fertilizer increases the risk of crop injury. See tank mixes for instructions.

Ally®, Express®, Finesse®, Glean®, and Harmony® are registered trademarks of E.I. Du Pont de Nemours & Co., Inc.
Amber® is a registered trademark of Ciba-Geigy Corp.

Preharvest Treatment (Wheat, Oats, Barley, Rye)

Apply 25.6 to 51.2 fl. oz. of SAVANA per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. In tank mixtures with other herbicides registered for preharvest application, a rate of 12.8 to 19.2 fl. oz. (.25 to .37 lb ae) per acre may be desired. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth. Addition of a non-ionic surfactant such as LI-700®, LIBERATE, Activator 90, or similar product usually improves weed control.

Postharvest (Wheat, Oats, Barley, Rye)

Following harvest, a flush of new weed growth may occur. For control of many annual broadleaf species, apply SAVANA at up to 25.6 fl. oz. (.5 lb ae) per acre. Also, certain perennial and biennial weeds may produce new fall growth in stubble grain fields. To aid in suppressing these weeds, SAVANA may be applied at the rate of 25.6 to 51.2 fl. oz. (.5 to 1.0 lb ae) per acre either alone or in combination with other registered herbicides such as dicamba or picloram. See PLANTING IN TREATED AREAS section. Follow more restrictive limitations, if any, for tank mix products used.

FALLOW LAND

Fallow land or land idle between crops may be subject to unwanted weed growth. For control of many annual broadleaf species, apply SAVANA at the rate of 12.8 to 51.6 fl. oz. per acre. To aid in suppressing certain perennial or biennial broadleaf weeds, SAVANA may be applied at the rate of 25.6 to 51.2 fl. oz. (.5 to 1.0 lb ae) per acre either alone or in combination with other registered herbicides such as ENGAME, dicamba or picloram. Use the high rate on older plants, drought stressed plants or for hard to kill species. See PLANTING IN TREATED AREAS section. Follow more restrictive limitations, if any, for tank mix products used. SAVANA may be used to kill fall alfalfa stands in preparation for spring planting of row crops under conservation tillage. The treated alfalfa crop cannot be grazed, fed to livestock or cut for hay.

General Restrictions: Plant only labeled crops within 29 days following application. Limited to 2 applications per year. Use a maximum of 2.0 lbs ae/acre per application. Wait a minimum of 30 days between applications.

SOYBEANS—PREPLANT ONLY—FOR USE IN CROP RESIDUE MANAGEMENT SYSTEMS

General Information

SAVANA is a phenoxy-type herbicide that provides postemergence control of many susceptible annual and perennial broadleaf weeds. SAVANA may be applied prior to planting soybeans to provide foliar burndown control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. SAVANA should only be applied preplant to soybeans in situations, such as reduced tillage production systems, where emerged weeds are present. Apply only according to the application instructions given below. Do not use any tillage operations between application of SAVANA and planting of soybeans.

Mixing Instructions

Compatible crop oil concentrates, agricultural surfactants and dilute fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of SAVANA on certain weeds and may be added to the spray tank. Read and follow label directions and precautions on this label and on the label of each product added to the spray mixture.

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Application Procedures

Apply using air or ground equipment in sufficient gallonage to obtain adequate coverage of weeds. Use 3 - 5 or more gallons of water per acre in aerial equipment and 10 or more gallons of spray mixture per acre for ground equipment.

Application Timing and Use Rates

Maximum Rate Per Acre	Lb. ae	When To Apply (Days prior to planting soybeans)
25.6 fl. oz.	.5	Not less than 7 days
51.2 fl. oz.	1.0	Not less than 14 days

Weeds Controlled

Alfalfa*	Mustard, wild
Bindweed*	Onion, wild
Bittercress, smallflowered	Pennycress, field
Buttercup, smallflowered	Peppergrass*
Carolina geranium	Plantains
Cinquefoil, common and rough	Purslane, common
Clover, red*	Ragweed, common
Cocklebur, common	Ragweed, giant
Dandelion*	Shepherdspurse
Dock, curly*	Smartweed, Pennsylvania*
Evening primrose, cutleaf	Sowthistle, annual
Garlic, wild*	Speedwell
Horseweed or Marestalk	Thistle, Canada
Ironweed	Thistle, bull
Lambsquarters, common	Velvetleaf
Lettuce, prickly	Vetch, hairy*
Morningglory, annual	Virginia copperleaf
Mousetail	

*These species are only partially controlled.

In general, weeds should be small, actively growing and free of stress caused by extremes in climatic conditions, diseases, or insect damage at the time of treatment. The response of individual weeds species to SAVANA is variable. Consult your local county or state Agricultural Extension Service or crop consultant for advice.

Application Restrictions and Precautions

Important Notice: Unacceptable injury to soybeans planted in fields previously treated with SAVANA may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present at the time of application. Do not apply SAVANA as described on this label unless you are prepared to accept soybean injury, including stand and yield.

Apply a maximum of one application per growing season regardless of the treatment rate.

Do not use on sandy soils with less than 1% organic matter.

Do not replant fields treated with SAVANA in the same growing season with crops other than those labeled for use with SAVANA.

Do not apply SAVANA when weather conditions such as temperature air inversions or wind favor drift from treated areas to susceptible plants.

Livestock Grazing Restriction: Do not feed hay, forage or fodder. Restrict livestock from grazing treated fields. Livestock should be restricted from feeding/grazing of treated cover crops.

In fields previously treated with SAVANA, plant soybean seed as deep as practical or at least 1 inch deep. Adjust the planter, if necessary, to ensure that planted seed is completely covered.

GRASS PASTURES

To control many emerged broadleaf weeds, apply 12.8 to 38.4 fl. oz. (.25 to .75 lb ae) of SAVANA per acre. Addition of a nonionic surfactant such as LI-700, LIBERATE, Activator 90, or similar product usually improves weed control. Preferred timing is in the early spring when sufficient weeds have emerged, and when weeds are small and actively growing, but before weeds are too mature. Summer applications of SAVANA to older, drought stressed weeds are less effective. However, weeds are more susceptible again in the fall when cooler, wetter conditions support active growth before a killing frost. For fall treatment of mature weeds or perennial weed regrowth, use up to 51.2 fl. oz. (1.0 lb ae) of SAVANA per acre. Several seasons of spring plus fall treatments may be necessary to control certain perennials.

Plant Response: Injury may result to bentgrass, other warm season or southern grasses, and alfalfa, clover or other legumes. Do not use SAVANA if this risk of injury is unacceptable. Clovers may recover from early spring applications. Do not apply when grass is in boot to milk stage, or after heading begins, if grass seed production is desired. Do not apply to newly seeded areas until grass is well established. Reseeding is not recommended for at least 30 days following SAVANA application. Addition of a surfactant may increase the risk of injury to newly seeded grasses.

General Restrictions: The preharvest interval (PHI) is 7 days (cut forage for hay).

Postemergence: Limited to 2 applications per year. Maximum of 2.0 lbs ae/acre per application. Minimum of 30 days between applications. If grass is to be cut for

hay, Agricultural Use Requirements for the Worker Protection Standard are applicable. For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

Livestock Feeding Restrictions: Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application.

GRASS SEED CROPS

To control many emerged broadleaf weeds, apply 12.8 to 38.4 fl. oz. (.25 to .75 lb ae) of SAVANA per acre. Use on established stands of cool season grass seed crops, such as bluegrass, tall fescue and perennial ryegrass. Make applications in the spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedlings may be treated after the grasses have more than 5 true leaves. On established stands that have had the seed crop removed, perennial weed regrowth may be treated in the fall at up to 51.2 fl. oz. (1.0 lb ae) of SAVANA per acre.

Refer to "Plant Response" and "Livestock Feeding Restrictions" under GRASS PASTURES.

General Restrictions: Limited to 2 applications per year. Use a maximum of 2.0 lbs ae/acre per application. Wait a minimum of 21 days between applications.

SOD FARMS

General: For best results, do not mow turf 1 to 2 days before or after application. Turf watering should be delayed until the day after application. Do not apply SAVANA to newly seeded areas until grass is well established and has been mowed several times. A period of about 30 days after application is usually a sufficient interval before reseeding. Seeding a small area and observing response is recommended before large scale seeding.

Cool Season Grasses: To control many emerged broadleaf weeds in cool season turfgrasses such as tall fescue, bluegrass or perennial ryegrass, apply 12.8 to 38.4 fl. oz. (.25 to .75 lb ae) of SAVANA per acre. Apply when weeds are small and are actively growing under good moisture conditions. Not for use on centipede, carpetgrass, St. Augustine, bentgrass or Dichondra turf, or where desirable clovers are present.

Restrictions: Limited to 2 applications per year. Use a maximum of 2.0 lbs ae/acre per application. Wait a minimum of 21 days between applications.

RANGELAND PASTURES AND PERENNIAL GRASSLANDS NOT IN AGRICULTURAL PRODUCTION

Livestock Feeding Restrictions: Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 7 days after application. For government program grasslands, follow program grazing restrictions if more restrictive than those given above.

General: SAVANA can be used to control or suppress a number of susceptible broadleaf weeds in rangeland, or perennial grasslands that are set aside from agricultural use such as in the Conservation Reserve Program (CRP) or similar government programs. Consult program rules to determine whether grass and hay may be used. For best results, apply when broadleaf weeds are small. Adequate moisture is needed for best grass tolerance and weed control. Addition of a non-ionic surfactant such as LI-700, LIBERATE, Activator 90, or similar product usually improves weed control.

Plant Response: Injury to legumes, bentgrass, and other warm season grasses is likely to occur. Grasses may be discolored following treatment. Do not apply when grass is in boot to milk stage, or after heading begins, if grass seed production is desired.

New Stands: Preseeding applications should occur at least 30 days prior to seeding. Newly seeded stands should only be treated after they are well established (more than 5 true leaves) or injury may occur. Apply 12.8 to 25.6 fl. oz. (.25 to .5 lb ae) of SAVANA per acre when weeds are small and actively growing. Addition of a surfactant may increase the risk of injury to new stands.

Established Stands: For best results, weeds must be actively growing. Apply 25.6 to 38.4 fl. oz. (.5 to .75 lb ae) of SAVANA per acre for annual weeds and up to 51.2 fl. oz. (1.0 lb ae) per acre for biennial or perennial weeds. Treat biennial weeds when they are in the seedling to rosette stage and before flower stalks become apparent. Treat perennial weeds in the bud to bloom stage. For brush species in rangeland, apply up to 102.4 fl. oz. of SAVANA per acre in an oil-spray (see MIXING INSTRUCTIONS). Another option is to add 1 gallon of oil per acre to a SAVANA water spray (see MIXING INSTRUCTIONS). Repeat applications in the same or subsequent year may be needed to control brush species.

Postemergence Restrictions: For susceptible annual and biennial broadleaf weeds: Do not exceed 1.0 lbs ae/acre per application. For moderately susceptible biennial and perennial broadleaf weeds: Use 51.2 to 102.4 fl. oz. of SAVANA (1.0 to 2.0 lbs ae/acre) per application. For difficult to control weeds and woody plants: Use 2.0 lbs ae/acre per application.

Spot treatment: Use 2.0 lbs ae/acre. Do not exceed a maximum of two applications per year. Do not exceed a maximum of 4.0 lbs ae/acre per year. Wait a minimum of 30 days between applications. If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

RICE

Apply 18 fl. oz. to 72 fl. oz. (.35 to 1.4 lb ae) of SAVANA at late tillering, at the time of first joint development (first to second green ring), usually 6 to 9 weeks after emergence. Do not apply after panicle initiation, after rice internodes exceed 1/2 inch, at early seedling, early panicle, boot, flowering, or early heading growth stages. For difficult to control weeds, use the higher rate of SAVANA per acre. However, do not use unless possible crop injury is acceptable. Preharvest Interval: Do not apply within 60 days of harvest.

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Note: Some rice varieties under certain conditions can be injured by 2,4-D. Therefore, before spraying, consult your local Extension Service or University Specialists for appropriate rates and timing of 2,4-D sprays.

General Restrictions: The preharvest interval (PHI) is 60 days. Use a maximum of 1.5 lbs ae/acre per crop cycle.

Preplant: Limited to one preplant application per crop cycle. Use a maximum of 1.0 lbs ae/acre per preplant application.

Postemergence: Limited to one postemergence application per crop cycle. Use a maximum of 1.5 lbs ae/acre per postemergence application.

Wild Rice (For use in Minnesota only.)

The preharvest interval (PHI) is 60 days.

Postemergence: Use limited to 1 application per crop cycle. Use a maximum of 0.25 lb ae/acre per application.

SUGARCANE

General Restrictions: Do not harvest cane prior to crop maturity. Do not apply more than 4 lbs ae/acre per crop cycle.

Preemergence: Apply 36 fl. oz. to 48 fl. oz. (.7 to .9 lb ae) of SAVANA per acre as a preemergence application in the fall after harvest, or at planting, or in the spring before canes appear. Limited to one application per crop cycle using a maximum of 2.0 lbs ae/acre per application.

Postemergence: Apply 36 fl. oz. to 96 fl. oz. (.7 to 1.8 lb ae) of SAVANA per acre as a Postemergence application after cane emerges and through layby (a maximum of two applications before closing). Limited to one application per crop cycle using a maximum of 2.0 lbs ae/acre per application.

Postharvest: Apply 48 to 96 fl. oz. (.9 to 1.8 lb ae) per acre in the fall after harvest or at planting.

Do not make more than 4 applications of SAVANA per season in accordance with State recommendations.

STONE FRUIT, NUT AND PISTACHIO ORCHARDS

For broadleaf weed control in the orchard floor apply 48 to 72 fl. oz. (.9 to 1.4 lb ae) SAVANA in 20-50 gallons of water per acre with ground equipment, using coarse sprays and low pressure. For band or spot treatment, calculate rates according to the actual portion of an acre treated. Apply as a directed spray onto the weeds to the point of runoff when weeds are young and actively growing (pre-bud to early bud stage).

General Restrictions: Do not cut orchard floor forage for hay within 7 days of application. The preharvest interval (PHI) is 60 days (Pistachio and Nut crops), 40 days (Stone fruits), 45 days (Filberts).

Postemergence: Limited to 2 applications per year. Use a maximum of 2.0 lbs ae/acre per application. Wait a minimum of 30 days between applications.

APPLE AND PEAR ORCHARDS-NON-BEARING Trees (well established, one year or older) and Bearing Trees before and after bloom

Apply 72 fl. oz. (1.4 lb ae) of SAVANA in 20 to 50 gallons of water per acre with ground equipment, using coarse sprays and low pressure. For band or spot treatment, calculate

rates according to the actual portion of an acre treated. Apply as a directed spray onto the weeds to the point of runoff when weeds are young and actively growing (pre-bud to early bud stage). A maximum of 2 applications per season can be made with a minimum retreatment interval of 75 days. Do not harvest fruit within 14 days of last application.

NOTE: Do not use on Gala variety apple orchards. Not for use in desert valleys or on shallow or sandy soils.

IMPORTANT: PRECAUTIONS WHEN APPLYING 2, 4-D IN ORCHARDS

Apply only after irrigation and allow maximum time before the next irrigation. Do not apply around fruit trees or vines with a hand gun. Use only flood nozzles and low pressures-20 to 30 psi. Use a fixed boom applicator which can be calibrated and which will deposit the spray uniformly. Avoid contact with fruit, foliage, stems or lower limbs of trees or vines as injury may result. DO NOT spray bare ground. Apply precisely and uniformly to prevent damage to the trees or vines and to obtain satisfactory weed control. Do not apply during windy periods or extremely high temperatures. Trees must be at least 1 year old and in vigorous condition before application is made. Do not apply during bloom. Allow maximum time after application and before next irrigation. The preferred time of application is during late autumn after harvest and before frost.

General Restrictions: The preharvest interval (PHI) is 14 days. Do not cut orchard floor forage for hay within 7 days of application.

Postemergence: Limited to 2 applications per crop cycle. Do not exceed a maximum of 2.0 lbs ae/acre per application. Wait a minimum of 75 days between applications.

FOREST MANAGEMENT

Forest Site Preparation

General Restrictions: Broadcast application: Limited to 1 broadcast application per year. Maximum of 4.0 lbs ae/acre per broadcast application.

Basal spray, Cut Surface - Stumps, and Frill: Limit of one basal spray or cut surface application per year. Maximum of 8.0 lbs ae per 100 gallons of spray solution.

Injection: Limit to one injection application per year. Maximum of 2 ml of 4.0 lbs ae formulation per injection site.

Bud break Spray: For control of alder, susceptible broadleaf weeds, and susceptible woody plants before planting forest seedlings, apply up to 192 fl. oz. (3.7 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. Apply as an oil spray (see MIXING DIRECTIONS) after alder buds break, but before foliage is ¼ full size. A water spray including 2 to 4 quarts per acre of diesel oil, fuel oil, stove oil or crop oil concentrate may also be used.

Foliage Spray: To control alder and susceptible woody plants before planting forest seedlings, apply up to 192 fl. oz. (3.7 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. Apply as a water spray including, if desired, up to 1 quart of diesel oil, fuel oil, stove oil or crop oil concentrate per gallon of water (see MIXING INSTRUCTIONS). For best results, apply after alder foliage has reached full size.

Conifer Release

To control alder, susceptible broadleaf weeds, and susceptible woody plants in young conifer stands, apply up to 102.4 fl. oz. (2 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. This spring foliage treatment should be applied as a water spray when ¾ of the brush foliage has full size leaves and before new conifer growth reaches 2 inches in length. Such stages usually occur between early May and mid-June, but application timing should be based on growth stages of brush and conifers. Application may cause leader deformation or other conifer injury, but trees should overcome it during the next growing season.

To control Tan oak, madrone, ceanothus, canyon live oak, and manzanita, and to release Douglas fir, hemlock, Sitka spruce or grand fir, apply up to 153.6 fl. oz. (3 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. This spring foliage treatment should be applied as a water spray including, if desired, up to 1 quart of diesel oil, fuel oil, stove oil or crop oil concentrate per gallon of water (see MIXING INSTRUCTIONS). Make application before new growth on Douglas fir is 2 inches long. To release ponderosa pine from the same species, treat before new pine growth begins in the spring. Addition of oil or oil concentrate may cause unacceptable injury to pines.

For dormant applications in late winter or early spring for control of susceptible woody species such as alder, willow, poplars, cherry, vine maple, ceanothus, Tan oak, madrone, and manzanita, apply up to 153.6 fl. oz. (3 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. This dormant treatment should be applied in diesel oil, fuel oil, stove oil or other suitable diluent such as water plus crop oil concentrate (see MIXING INSTRUCTIONS). Do not use in plantations where pine and larch are among the desired crop species.

To control hazel brush in the Lake states, apply up to 102.4 fl. oz. (2 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. Apply as a water spray when new shoot growth of hazel is complete (usually mid-July). After conifer species such as white pine, ponderosa pine, jack pine, red pine, black spruce, white spruce, red spruce, and balsam fir cease growth and harden off and brush is still actively growing in late summer, apply up to 148 fl. oz. (2.8 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre.

Apply as a water spray to control certain competing hardwoods such as alder, aspen, birch, hazel and willow. Since this treatment may cause conifer injury, do not use if possible injury cannot be tolerated.

Forest Roadsides

To control susceptible broadleaf weeds and woody plants on forest roadsides, apply 51.2 to 153.6 fl. oz. (1 to 3 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. Apply as a water spray including, if desired, up to 3 quarts per acre of diesel oil, fuel oil, stove oil or crop oil concentrate (see MIXING INSTRUCTIONS). Apply when sufficient foliage is present for absorption of herbicide.

Established Conifers (Including Christmas Trees)

Directed Spray or Spot Spray

To control susceptible broadleaf weeds, mix up to 102.4 fl. oz. (2 lb ae) of SAVANA per 100 gallons of water and apply to emerged weeds in the spring with ground equipment. Avoid contacting conifer foliage with spray or drift as injury may result. For brush, mix 192 fl. oz. of SAVANA per 100 gallons of water. Thoroughly spray brush in full foliage, but avoid contacting conifer foliage with spray or drift. Do not apply more than the equivalent of 192 fl. oz. (3.75 lb ae) of SAVANA per acre.

Over-the-Top Broadcast Application

To control susceptible broadleaf weeds, apply 51.2 fl. oz. (1 lb ae) of SAVANA per acre in a minimum of 10 gallons spray mixture per acre. To decrease the potential for injury to firs, apply only before budbreak in the spring and/or after complete bud set and hardening in the late summer or fall. Avoid treatment during the year of intended harvest.

ROADSIDES; MEDIANS; HIGHWAY, RAILROAD, UTILITY, AND PIPELINE RIGHTS-OF-WAY; VACANT LOTS; AROUND UTILITY INSTALLATIONS, TRANSFORMERS, PUMP HOUSES, AND BUILDINGS; STORAGE AREAS; FENCES; GUARDRAILS; LUMBER YARDS; INDUSTRIAL SITES; AIRPORTS; TANK FARMS; FARMSTEADS; AND SIMILAR NONCROP AREAS

For control of many broadleaf weeds and small woody plants, apply 25.6 to 102.4 fl. oz. (.5 to 2 lb ae) of SAVANA per acre. Use the high rate for woody plants.

Applications may be as broadcast sprays, small area sprays or spot treatments. For small areas or spot spraying, use 6.4 fl. oz. of SAVANA per gallon of water and spray weeds to runoff. Regardless of the method of application, use adequate spray volume for full coverage of weeds. Preferred application timing is in the early spring when sufficient weeds have emerged, and when weeds are small and actively growing, but before weeds are too mature. Summer applications of SAVANA to older, drought stressed weeds are less effective. However, weeds are more susceptible again in the fall when cooler, wetter conditions support active growth before a killing frost. For fall treatment of mature weeds or perennial weed regrowth, use up to 51.2 fl. oz. of SAVANA per acre. Several seasons of spring plus fall treatments may be necessary to control certain perennials. Use of oil sprays or the addition of spray adjuvants improves weed control, but also increases risk of damage to desirable ground covers.

Plant Response: Bentgrass, other warm season or southern grasses, and alfalfa, clover or other legumes may be killed or injured. Do not apply when grass is in boot to milk stage, or after heading begins, if grass seed production is desired.

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Do not apply to newly seeded areas until grass is well established. Reseeding is not recommended for at least 30 days following SAVANA application.

LEAFY SPURGE CONTROL IN COLORADO, IDAHO, MINNESOTA, MONTANA, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA, WASHINGTON, AND WYOMING

SAVANA is recommended for use in combination with TORDON® or BANVEL® for the suppression/control of leafy spurge on industrial noncrop land sites in Colorado, Idaho, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Washington and Wyoming. Apply 48 to 96 fl. oz. (1.9 to 1.8 lb ae) of SAVANA in combination with 2 pints of Tordon or 96 fl. oz. of SAVANA plus 4 pints of Banvel, or 96 fl. oz. of SAVANA plus 1 pint of Tordon plus 2 pints of Banvel per acre. Apply with water at 5 to 10 gallons per acre with conventional equipment. Use nozzle systems capable of spraying correct gallonage. A nonionic surfactant such as LI-700®, LIBERATE, Activator 90, or similar product may be added at 0.25% by volume (1 quart per 100 gallons of solution) for improved weed control.

Important: Before using SAVANA, Tordon, and/or Banvel in these combinations, read and carefully observe all precautionary statements and other information appearing on the product labels.

Tordon® is a registered trademark of Dow AgroSciences LLC.
Banvel® is a registered trademark of BASF Corporation.
LI-700® is a registered trademark of Loveland Industries, Inc.

ORNAMENTAL AND RECREATIONAL TURFGRASSES, LAWNS, GOLF COURSES (Fairways, Aprons, Tees and Roughs), PARKS, CEMETERIES:

General: Refer to TURF USE REQUIREMENTS in the NON-AGRICULTURAL USE REQUIREMENTS section of this label. The maximum number of broadcast applications per treatment site is 2 per year. For best results, do not mow turf 1 to 2 days before or after application. Turf watering should be delayed for at least 1 hour after application. Avoid contacting desirable trees, shrubs, flowers, or vegetables as plant injury may result. Do not apply to newly seeded areas until grass is well established and has been mowed several times. A period of about 30 days after application is usually a sufficient interval before reseeding grasses (or other plants). Seeding a small area and observing response is recommended before large scale seeding.

Cool Season Grasses: To control many emerged broadleaf weeds in cool season turfgrasses such as tall fescue, bluegrass or perennial ryegrass, apply 25.6 to 38.4 fl. oz. (.5 to .7 lb ae) of SAVANA per acre (0.6 to 0.88 fl. oz. per 1000 square feet). Preferred application timing for broadcast treatment is in the early spring when small weeds have emerged and are actively growing under good moisture conditions. For very weedy turf, a followup broadcast or spot application may be warranted about 2 to 4 weeks later. Summer applications of SAVANA are typically spot treatments of individual weeds that have emerged after a spring broadcast treatment. In the fall when cooler, wetter conditions again favor active weed growth, broadcast application may be appropriate for very weedy turf, such as an area that had no spring broadcast treatment. Not for use on centipede, carpetgrass, St. Augustine, bentgrass or Dichondra turf, or where desirable clovers are present.

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Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

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