

264-860

05-12-2011

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Nang-Ly Chow
Registration Manager
Bayer CropScience
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

MAY 12 2011

Subject: Label Amendment: Revising Rotational Guidelines; Adding Burndown Language
Product Name: Laudis Herbicide
EPA Registration Number 264-860
Decision Number: 445398
Submission Date: February 9, 2011

The label amendments referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable.

Products shipped after 18 months from the date on this notice or the next printing of the master label whichever occurs first, must bear the new label language. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of this product constitutes acceptance of these conditions. As required, you must submit one copy of the final printed label before the product is released for shipment. If you have any questions please contact Michael Walsh by phone at (703) 308-2972 or via email at "walsh.michael@epa.gov"

Sincerely,

A handwritten signature in black ink that reads "Kathryn V. Montague".

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

Enclosure

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GROUP 27 HERBICIDE

LAUDIS[®] Herbicide

A Herbicide for control of annual broadleaf and grass weeds in field and silage corn, seed corn, sweet corn, and popcorn and for postharvest burndown weed control.

ACTIVE INGREDIENTS:

Tembotrione: 2-[2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy)methyl]benzoyl]-1,3-cyclohexanedione * **34.5%**

INERT INGREDIENTS: **65.5%**

TOTAL: 100.0%

Contains 3.5 lb of active ingredient per gallon

*(CAS Number 335104-84-2)

EPA Reg No. 264-860

E.P.A. Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

**For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)**

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF 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.

For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577

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

ACCEPTED

MAY 12 2011

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. **264-860**

PRECAUTIONARY STATEMENTS

CAUTION HAZARD TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

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 A on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear: Long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves made of any waterproof material.

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

Engineering control statement:

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

User Safety Recommendations

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to non-target plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This product may contaminate water through drift of spray in wind. Follow precautions for use to avoid wind spray drift.

This product has a high potential for runoff after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

DIRECTIONS FOR USE

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

Read entire label before using this product.

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 same area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticides.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE that is required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil or water, is coveralls over long-sleeved shirt and long pants, socks and shoes and chemical-resistant gloves made of any waterproof material.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Keep container tightly closed when not in use. Avoid cross contamination with other pesticides.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. For questions about proper disposal, contact your state pesticide and environmental control agency.

CONTAINER DISPOSAL

Rigid, Non-refillable containers less than 5 gallons

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. 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. After triple rinsing procedure dispose of container in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)

Non-refillable containers - Do not reuse or refill this container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows.

Bottom Discharge IBC (e.g. – Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g.– Snyder 120 Next Gen, Bonar B120, Drums, Kegs).

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times. Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

Rigid, Refillable containers less than 5 gallons

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning 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. Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned stay out of smoke.

Refillable Containers with capacities greater than 5 gallons or 50 lbs

Refillable container – Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows. Refill this container with pesticide only. Do not reuse this container for any other purpose. Contact your Ag retailer or Bayer CropScience for container return, disposal and recycling information.

Bottom Discharge IBC (e.g. – Schuetz Caged IBC or Snyder Square Stackable)

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 pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g.– Snyder 120 Next Gen, Bonar B120, Drums, Kegs).

Triple 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 triple rinse the containers before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

PRODUCT INFORMATION

LAUDIS® Herbicide is intended for postemergence application in field corn (including silage corn, seed corn), sweet corn, and popcorn for the control of annual broadleaf and grass weeds and for postharvest burndown weed control. Weed growth ceases within hours after LAUDIS® Herbicide is applied. Symptoms on susceptible weed species progress from yellowing and bleaching to necrosis resulting in eventual plant death generally within 7 to 14 days after application.

PRODUCTS IN REFILLABLE CONTAINERS

End users are authorized to remove tamper evident cables as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. If this is the case, end users are not authorized to remove tamper evident cables, one way valves or clean container. See Container Disposal instructions under the Storage and Disposal section.

WEEDS CONTROLLED RECOMMENDATIONS

LAUDIS Herbicide effectively controls a broad array of important grass and broadleaf weeds, including biotypes resistant to glyphosate-, triazine-, phenoxy-, benzoic-, and ALS-inhibiting herbicides, when applied at 3 fl oz/A along with the recommended adjuvant system (Tables 1 and 2). Best control of broadleaf weeds is achieved when weeds are less than 6" in height and actively growing. The best control of grass weeds is achieved prior to tillering and when grasses are actively growing. In corn, the addition of atrazine at a minimum 0.5 lb ai/A will improve control of broadleaf weeds larger than 6 " in height and increase the speed, spectrum, and consistency of grass control.

Table 1. Broadleaf Weeds Controlled

Broadleaf Weeds Common Name	Scientific Name	LAUDIS Alone 3 fl oz/A	LAUDIS 3 fl oz/A + atrazine min. 0.5 lb ai/A
		For All Labelled Uses	For Use on Corn Only
Control of weeds <6" tall			
Amaranth, palmer	<i>Amaranthus palmeri</i>	C	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C	C
Amaranth, spiny	<i>Amaranthus spinosus</i>	C	C
Amaranth, tumbleweed	<i>Amaranthus albus</i>	C	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	PC	C
Buffalobur	<i>Solanum rostratum</i>	C	C
Burcucumber	<i>Sicyos angulatus</i>	PC	PC
Canada thistle	<i>Cirsium arvensis</i>	PC	C
Carpetweed	<i>Mullugo verticillata</i>	C	C
Chickweed, common	<i>Stellaria media</i>	C	C
Cocklebur, common	<i>Xanthium strumarium</i>	C	C
Dandelion	<i>Taraxacum officinale</i>	PC	PC
Deadnettle, purple	<i>Lamium purpureum</i>	C	C
Dock, curly	<i>Rumex crispus</i>	PC	PC
Galinsoga	<i>Galinsoga parviflora</i>	C	C
Hemp	<i>Cannabis sativa</i>	C	C
Henbit	<i>Lamium amplexicaule</i>	C	C
Jimsonweed	<i>Datura stramonium</i>	C	C
Knotweed, prostrate	<i>Polygonum aviculare</i>	PC	PC
Kochia	<i>Kochia scoparia</i>	C	C
Ladysthumb	<i>Polygonum persicaria</i>	C	C
Lambsquarters, common	<i>Chenopodium album</i>	C	C
Mallow, venice	<i>Hibiscus trionum</i>	C	C
Marestail/Horseweed	<i>Conyza canadensis</i>	PC	C

Broadleaf Weeds Common Name	Scientific Name	LAUDIS Alone 3 fl oz/A	LAUDIS 3 fl oz/A + atrazine min. 0.5 lb ai/A
		For All Labelled Uses	For Use on Corn Only
		Control of weeds <6" tall	
Morningglory, cotton	<i>Ipomoea trichocarpa</i>	PC	C
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	PC	C
Morningglory, pitted	<i>Ipomoea lacunosa</i>	PC	C
Mustard, wild	<i>Sinapis arvensis</i>	C	C
Nightshade, black	<i>Solanum nigrum</i>	C	C
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	C
Pokeweed, common	<i>Phytolacca americana</i>	PC	PC
Potato, volunteer	<i>Solanum spp.</i>	C	C
Purslane, common	<i>Portulaca oleracea</i>	NC	C
Pusley, Florida	<i>Richardia scabra</i>	C ¹	C ¹
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	C
Ragweed, giant	<i>Ambrosia trifida</i>	C	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	C
Sicklepod	<i>Cassia tora</i>	PC	C
Sida, prickly (teaweed)	<i>Sida spinosa</i>	NC	C
Smartweed, pale	<i>Polygonum lapathifolium</i>	C	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C	C
Sunflower, common	<i>Helianthus annuus</i>	C	C
Thistle, Russian	<i>Salsola kali</i>	C	C
Velvetleaf	<i>Abutilon theophrasti</i>	C	C
Waterhemp, common	<i>Amaranthus rudis</i>	C	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C	C

¹Apply before weed exceeds 2 inches in height.

C= Control

PC=Partial Control*

NC= Not controlled

*Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas; performance may not be commercially acceptable. The degree of weed control will vary with weed size, density, spray coverage, and/or growing conditions.

Table 2. Grass Weeds Controlled

Grass Weeds	Scientific Name	LAUDIS 3 fl oz/A		LAUDIS 3 fl oz/A + atrazine min. 0.5 lb ai/A	
		For All Labelled Uses		For Use on Corn Only	
		Maximum Weed Height (inches)	Performance	Maximum Weed Height (inches)	Performance
Barnyardgrass	<i>Echinochloa crus-galli</i>	5	C	6	C
Crabgrass, large	<i>Digitaria sanguinalis</i>	3	C	4	C
Crabgrass, smooth	<i>Digitaria ischaemum</i>	2	PC	2	PC
Cupgrass, woolly	<i>Eriochloa villosa</i>	3	C	4	C
Foxtail, giant	<i>Setaria faberi</i>	3	C	4	C
Foxtail, green	<i>Setaria viridis</i>	2	PC	2	PC
Foxtail, yellow	<i>Setaria pumila</i>	3	C	4	C
Goosegrass	<i>Eleusine indica</i>	3	C	4	C
Johnsongrass, seeding	<i>Sorghum halepense</i>	5	C	6	C
Junglerice	<i>Echinochloa colonum</i>	4	C	5	C
Millet, wild proso	<i>Panicum miliaceum</i>	4	C	5	C
Panicum, Texas	<i>Panicum texanum</i>	3	C	4	C
Sandbur, field	<i>Cenchrus incertus</i>	2	PC	2	PC
Shattercané / vol. sorghum	<i>Sorghum bicolor</i>	6	C	8	C
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	4	C	5	C

C= Control PC= Partial control*

*Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas; performance may not be commercially acceptable. The degree of weed control will vary with weed size, density, spray coverage, and/or growing conditions.

Cultivation

Cultivation can help remove suppressed weeds or multiple flushing weeds. However, cultivation should not be performed within 7 days of an application of LAUDIS Herbicide as this could decrease the effectiveness of weed control due to disruption of herbicide translocation in the plant.

RESISTANCE MANAGEMENT

Laudis Herbicide is a **Group 27** herbicide containing tembotrione as the active ingredient.

Naturally occurring biotypes of certain weed species with resistance to various herbicide modes of action are known to exist. Performance of LAUDIS Herbicide is not affected by the presence of biotypes resistant to glyphosate-, triazines-, ALS-inhibiting, growth regulant-, or other herbicide modes of action.

To manage the development and spread of resistant weed populations, use herbicides with different modes of action in tank mixture, sequence or rotation, or in conjunction with alternate cultural practices. Additionally, rotate use of herbicide-tolerant traits in crops where possible.

Integrated Pest (Weed) Management

LAUDIS Herbicide may be integrated into an overall weed and pest management strategy whenever the use of a herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

ROTATIONAL GUIDELINES

If a corn crop has been destroyed by hail or other means soon after a LAUDIS Herbicide application, field corn, sweet corn, or popcorn can be replanted immediately after a LAUDIS Herbicide application. See chart below for rotational interval to all other crops after a LAUDIS Herbicide application. Planting at shorter than recommended intervals may result in injury to the rotational crop.

Table 3. Rotational Crop Guidelines

Immediate	4 months	8 months	10 months	18 months
Field corn Sweet corn Popcorn	Cereal grains (except corn and sorghum) Sugarcane Grass grown for seed Timothy	Soybean	Sorghum Peas Rice Tobacco Peanuts Cotton Potatoes Canola Alfalfa Tomato Snapbeans Sugar beets ^{1,2} Dry beans ¹ (types and varieties for commercial production except those listed under 18 months)	Cucurbits Dry beans (red kidney, cranberry bean, non-commercial "garden" types and varieties) Sunflowers All other crops

¹ Cumulative precipitation between application of LAUDIS Herbicide and replanting to sugar beets or dry beans must total 20 inches. Furrow or flood irrigation cannot be included in the total. The amount of cumulative precipitation required before planting a rotational crop is in addition to the required rotational interval given in months.

² Through tillage should follow the crop in which LAUDIS Herbicide was used and precede the rotation to sugar beets.

OTHER CROPS

All other crops may be seeded only after the completion of a successful field bioassay after a LAUDIS Herbicide application. Refer to the "Field Bioassay" section.

FIELD BIOASSAY

A field bioassay must be completed before rotating to crops other than those specified in the Rotational Guidelines section of this label. To conduct an effective field bioassay, grow strips of the crop you intend to grow in the following season in a field previously treated with LAUDIS Herbicide. The test strip should include low areas and knolls, and include variations in soil such as type and pH. Crop response to the bioassay will determine if the crop(s) grown in the test strips can be grown safely in the areas previously treated with LAUDIS Herbicide.

SPRAY DRIFT MANAGEMENT

Spray drift may result in injury to non target crops or vegetation. To avoid spray drift, do not apply when wind speed is greater than 10 MPH or during periods of temperature inversions. Do not apply when weather conditions, wind speed or wind direction may cause spray drift to non-target areas. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

Sensitive Areas

Only apply this product when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non target crops) is minimal (e.g. when wind is 10 MPH or less and is blowing away from sensitive areas).

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

Do not apply under circumstances where possible drift to unprotected persons, or to food, forage, or other plantings that might be damaged, as crops thereof may be rendered unfit for sale, use or consumption.

Information on droplet size:

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

Uniform, thorough spray coverage is important to achieve consistent weed control. Select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. Nozzles that deliver **COARSE** spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of weeds.

Controlling Droplet Size:

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Application Height:

For ground boom applications, apply with nozzle height no more than 15 inches above the ground or crop canopy.

Wind:

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity:

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. Avoid spraying during conditions of low humidity and/or high temperatures.

Temperature Inversion:

- Do not make applications into areas of temperature inversion. Temperature inversion restricts vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversion. Temperature inversion is characterized by an increasing temperature with altitude and is common on nights with limited cloud cover and light to no wind. It begins to form as the sun sets and often continues into the morning. Its presence can be indicated by ground fog; however, if fog is not present, inversion can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

APPLICATION INFORMATION

LAUDIS Herbicide may be applied by ground application only. Uniform, thorough spray coverage is important to achieve consistent weed control. Select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. Nozzles that deliver **COARSE** spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of weeds. Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage.

- Do not use nozzles that produce **FINE** (e.g. - Cone) or **EXTRA COARSE** (e.g. - Flood jet) spray droplets.

GROUND APPLICATION

LAUDIS Herbicide can be applied broadcast in a minimum of 10 gallons of water per acre (unless a higher volume is specified for a tank-mix partner). For weed control in dense weed populations or under adverse growing conditions, 15 to 20 gallons of water per acre is recommended. Good coverage is essential to achieve optimum weed control.

Typically, flat-fan nozzles operated at 30-60 PSI will deliver MEDIUM spray droplets, providing optimum spray coverage and canopy penetration. Lower pressure operation and/or higher volume flat fan nozzles typically deliver COARSE sprays. Refer to nozzle manufacturer catalogs.

- Boom height should be based on the height of the crop – at least 15 inches above the crop canopy.
- Air induction nozzles should be used at or near 80 psi to produce a medium droplet size.
- Proper agitation should be maintained within the tank to keep the product dispersed.
- See the Spray Drift Management section of this label for additional information on proper application of LAUDIS Herbicide.

COMPATIBILITY

If LAUDIS Herbicide is to be tank mixed with other pesticides, compatibility must be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1qt) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually occur within 5-15 minutes after mixing. If the mixture balls-up, forms flakes, sludges, gels, oily film or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

MIXING INSTRUCTIONS

LAUDIS Herbicide must be applied with clean and properly calibrated equipment. Prior to adding LAUDIS Herbicide, ensure that the spray tank, filters and nozzles have been thoroughly cleaned and that agitation system is properly working.

1. Fill spray tank with 50% of the required volume of water, and begin agitation.
2. Agitate the LAUDIS Herbicide product container thoroughly by shaking, circulating or stirring prior to adding the herbicide into the spray tank.
3. Add the appropriate amount of LAUDIS Herbicide slowly to the spray tank or mixing system and ensure complete dispersion. Maintain and ensure thorough dispersion and sufficient agitation during both mixing and spraying.
4. If tank mixing with another pesticide, add the tank mix product next (except in the case of glyphosate which should be added after the nitrogen fertilizer is dispersed).
5. Add nitrogen fertilizer.
6. Add the adjuvant.
7. Fill the spray tank with balance of water needed.

SPRAY ADDITIVES

LAUDIS Herbicide is a suspension concentrate that requires the use of an external surfactant and a nitrogen fertilizer source to achieve optimum weed control. For specific adjuvant recommendations with tank mixes, see the Tank Mix section of this label.

Surfactant

The use of a Methylated Seed Oil (MSO) is recommended when LAUDIS Herbicide is used or when alternative adjuvants are not otherwise specified on this label. MSO can improve control of weeds under stress, in high populations, in mixed grass and broadleaf weed populations, and under conditions of low humidity. Use MSO at 1 gallon per 100 gallons of water (1% v/v). MSO should contain at least 80% MSO and 10% emulsifier or greater. The use of adjuvants such as non-ionic surfactants or refined vegetable oils will result in unacceptable or erratic weed control.

As an alternative to traditional MSO surfactants, High Surfactant oil Concentrates (HSOC) at recommended rates may be used with LAUDIS Herbicide. An HSOC is an emulsifiable oil based product containing 25-50% surfactant (wt/wt) in a minimum of 50% oil (wt/wt). The oil concentrates in HSOC can be based on MSO or COC. MSO based products are preferred with LAUDIS Herbicide particularly when used alone or with atrazine.

Ammonium Nitrogen Fertilizer

Use 1.5 qt/A of a high-quality urea ammonium nitrate (UAN) or 1.5 lb/A (8.5 lb per 100 gallons) of a spray-grade ammonium sulfate (AMS). Use UAN under conditions of low relative humidity for greater weed control.

TANK CLEANOUT PROCEDURES

(Cleaning Equipment After LAUDIS Herbicide Application)

Special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much cleaning solution as needed.

1. Remove, dump and clean main sump and boom strainers in a standard commercial tank cleaner solution.
2. Disassemble nozzle bodies including screens, gaskets, and diaphragm caps and clean in a standard commercial tank cleaner solution.
3. Rinse walls of tank and all surfaces of tank to remove visible residue.
4. Reassemble nozzles and strainers.
5. Flush the system with clean water.
6. Add 25-50 gallons of water to spray tank. Add 1-2 gallons of household bleach to spray tank (1 gallon bleach for 25 gallons water). Start agitation in the sprayer and re-circulate the bleach-containing solution for 15 minutes.
7. Spray out the bleach-containing solution until the tank is empty.
8. Rinse machine with clean water.
9. Dispose of all rinsate in an appropriate manner.

PRECAUTIONS FOR USE

1. LAUDIS Herbicide is rainfast 1 hour after application to most weed species. Avoid application if rainfall is predicted during this period. Rainfall within 1 hour of application may necessitate retreatment with LAUDIS Herbicide or may result in reduced weed control.
2. Weed control may be reduced if the application is made when weeds are dust covered or in the presence of heavy dew, fog, and mist/rain or when weeds are under stress due to drought.
3. DO NOT apply when wind causes drift to off-site vegetation as injury may occur. LAUDIS Herbicide delivered via drift or tank contamination can cause severe damage to other crops. Careful management of spray drift and tank cleanout is required.
4. Field corn, sweet corn, or popcorn can be planted immediately after an application of LAUDIS Herbicide. DO NOT plant other rotational crops immediately following LAUDIS Herbicide application. For all other crops refer to the Rotational Guidelines section of this label.
5. DO NOT apply LAUDIS Herbicide with liquid fertilizers as the primary spray carrier. Only apply with water as the primary spray carrier plus recommended adjuvants. See spray adjuvants section.
6. DO NOT apply this product by air or through any type of irrigation system.
7. Apply LAUDIS Herbicide spray mixtures within 24 hours of mixing to avoid product degradation.
8. Avoid drift onto adjacent crops.
9. When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures control can be reduced or delayed because weeds are not actively growing. To obtain optimum weed control, apply LAUDIS Herbicide when weeds are actively growing.

SPECIFIC CROP USE DIRECTIONS

CORN (Field Corn, Popcorn, Seed Corn and Sweet Corn)

LAUDIS Herbicide can be applied postemergence on all types of corn. Best results are obtained when it is applied to young, actively growing weeds. LAUDIS Herbicide will affect weeds that are larger than the recommended height; however it may result in incomplete weed control.

- Apply LAUDIS Herbicide at 3 fl oz/A per application. Always add the appropriate adjuvants to the spray tank (see **SPRAY ADDITIVES** information in the **APPLICATION INFORMATION** section of this label).
- Applications of LAUDIS Herbicide at rates less than 3 fl oz/A postemergence may result in incomplete weed control and reduction in residual activity.
- Broadcast applications of LAUDIS Herbicide must be made to corn from emergence up to the V8 stage of growth for field corn or popcorn, or from emergence up to the V7 stage of growth for sweet corn.
- A second postemergence application may be made to field corn or popcorn. Applications of this product must be made a minimum of 7 days apart.

Late or Rescue Applications

Applications of LAUDIS Herbicide at 3 fl oz/A may be applied to escaped weeds beyond labeled weed heights. In these situations, only partial weed control and reduced weed competition can be expected. Apply up to the V9 stage of growth for field corn or popcorn, or up to the V7 stage of growth for sweet corn.

Crop-Specific Precautions and Restrictions

- DO NOT apply LAUDIS Herbicide to corn that exhibits injury from previous herbicides applications.
- Do NOT exceed a total of 6 fl oz/A of LAUDIS Herbicide per growing season on field corn or popcorn, or 3 fl oz/A per growing season on sweet corn.
- DO NOT apply more than two applications of LAUDIS Herbicide to field corn or popcorn, or more than one application to sweet corn, per growing season.
- If a second application of Laudis is made (field corn and popcorn only), the application must be made a minimum of 7 days after the first application.
- DO NOT graze livestock or harvest corn forage within 45 days of application.
- **Sweet Corn, Seed Corn and Popcorn Only-** Herbicide sensitivity in all hybrids and inbreds of seed corn, sweet corn and popcorn has not been tested. Consult with your seed provider, your local Bayer CropScience representative and/or other knowledgeable agricultural professionals for advice on hybrid/inbred tolerance before applying LAUDIS Herbicide. If the tolerance of a hybrid/inbred is not known, apply LAUDIS Herbicide to a small area to first determine if the hybrid/inbred is tolerant prior to spraying large acreages of that hybrid/inbred. As an example, do not use LAUDIS Herbicide on Merit or Shogun sweet corn varieties as unacceptable crop response will occur.

Tank Mix Recommendations

Certain tank mixes may aid in the performance of LAUDIS Herbicide. See Spray Adjuvant section of this label for use recommendations for use with all tank mix partners used in conjunction with LAUDIS Herbicide unless otherwise specified in the following tank mix directions. When using LAUDIS Herbicide in tank mix combinations, refer to individual product labels for precautionary statements, restrictions, rates, approved used and a list of weeds controlled and follow the directions of the most restrictive label.

- **Atrazine**

An application of LAUDIS Herbicide at 3 fl oz/A in combination with atrazine at 0.5 lb ai/A will increase the speed of control, weed spectrum and consistency of control. Do not use atrazine if corn is greater than 12 inches tall.

- **Ignite[®] 280 SL**

LAUDIS Herbicide at 2 to 3 fl oz/A can be tank mixed with Ignite[®] 280 SL Herbicide at 22 fl oz/A. Ignite[®] 280 SL Herbicide can only be used on corn seed designated as LibertyLink[®]. Apply in a minimum of 15 gallons of water per acre. Do not use MSO/ESO or COC adjuvants in this mixture, only add AMS at 8.5 lbs/100 gallons (1.5 lb/A).

- **Define[™] SC**

LAUDIS Herbicide at 3 fl oz/A can be tank mixed with Define[™] SC at 7 to 15 fl oz/A for additional residual weed control on corn up to the 5 leaf stage.

- **Glyphosate (including Roundup and Touchdown branded products)**

LAUDIS Herbicide at 2 to 3 fl oz/A can be tank mixed with glyphosate for use on glyphosate-tolerant corn. LAUDIS Herbicide will enhance control of broadleaf and glyphosate-resistant weeds, and will reduce glyphosate induced weed shifts. LAUDIS Herbicide should be added to the water in the tank and dispersed first prior to adding ammonium sulfate, glyphosate or any other pesticide or adjuvant. Follow all other directions on the glyphosate label regarding adjuvants and mixing instructions with loaded (adjuvant-containing) formulations of glyphosate. When tankmixing LAUDIS Herbicide with full use rates of a loaded glyphosate formulation, the addition of a glyphosate-compatible surfactant is recommended. When tankmixing LAUDIS Herbicide with full use rates of a low loaded or unloaded glyphosate formulations, the addition of a glyphosate-compatible surfactant is required. Glyphosate-compatible oil-based surfactants such as HSOC's will optimize the performance of LAUDIS Herbicide in the combinations. Only glyphosate-compatible oil-based surfactant (such as HSOC) may be used when mixing LAUDIS Herbicide plus reduced rates of glyphosate (loaded or unloaded formulations), or when applying tank mixtures of LAUDIS Herbicide plus glyphosate (loaded or unloaded formulations) under arid climatic conditions.

- **Accent[®], Option[®], Stout[™], or Steadfast[®]**

LAUDIS Herbicide at a rate of 3 fl. oz/A can be tank mixed with Accent, Option, Stout, or Steadfast.

- **Buctril[®] and equivalent bromoxynil products**

To aid in the control of certain broadleaf weeds (e.g. ragweeds), LAUDIS Herbicide at a rate of 3 fl. oz/A can be tank mixed with Buctril at a rate up to 6 fl. oz/A. Buctril can be used in place of atrazine in corn that is greater than 12 inches tall, which is the corn height limit for the use of atrazine. The use of crop oil concentration (COC) or MSO at 1% v/v + UAN at 1.5 qt/A or AMS at 8.5 lb/100 gal is recommended with tank mixture of LAUDIS Herbicide and Buctril.

• **Tank Mixtures for Insect Control**

To provide weed and insect control in corn, LAUDIS Herbicide may be mixed with foliar insecticides including the following:

Ambush®
Asana® XL
Baythroid® XL
Capture®

Decis®
Lorsban®
Mustang®
Pounce® 3.2EC

Sevin® XLR
Warrior™
Oberon®

• **Tank Mixtures for Disease Control**

To provide weed and disease control in corn, LAUDIS Herbicide may be mixed with foliar fungicides including the following:

Headline®
Headline AMP™

Quilt®
Quilt Xcel™

Stratego® YLD

POST HARVEST BURNDOWN APPLICATION

LAUDIS Herbicide may be used as a postharvest burndown treatment to control broadleaf weeds at any time of the year following harvest of corn or before planting of the next rotational crop. Laudis Herbicide will be especially effective against broadleaf weed biotypes which have developed resistance to glyphosate-, triazine-, ALS-inhibiting, growth regulant- and other herbicide modes of action. Specific rotational crop intervals must be observed between the postharvest application of Laudis Herbicide and planting of the next rotated crop. Refer to the **ROTATIONAL GUIDELINES** found in the **GENERAL INFORMATION** section of this label for specific crop rotation intervals.

Application Rates and Timings

Apply LAUDIS Herbicide as a broadcast postemergence spray at 2-3 fl oz/a plus recommended adjuvant system (refer to the **SPRAY ADDITIVES** information in the **APPLICATION INFORMATION** section of this label. Best weed control will be achieved when applications are made to young, actively weeds (refer to the **WEED CONTROL TABLES 1** in the **GENERAL INFORMATION** section for a complete listing of weeds controlled)

Crop-Specific Restrictions and Precautions

- DO NOT exceed a maximum seasonal cumulative amount of 6 fl oz/A of LAUDIS Herbicide per growing season on field corn or popcorn, or 3.0 fl oz/A per growing season on sweet corn.
- If applying LAUDIS Herbicide postharvest, only corn (field, sweet and pop) may be planted immediately. Refer to the **ROTATIONAL GUIDELINES** for specific crop rotation intervals.
- DO NOT graze livestock or harvest corn forage within 45 days of application.

Tank Mixture Recommendations

Certain tank mixtures may aid in the performance of LAUDIS Herbicide as a postharvest spray application. LAUDIS Herbicide at 2 to 3 fl oz/A may be tank mixed with the following herbicides at their labeled use rates:

2,4-D
Clarity® herbicide

Dicamba
Distinct® herbicide

glyphosate
Ignite® 280 SL

When using LAUDIS Herbicide in tank mix combinations, refer to individual product labels for precautionary statements, restrictions, rates weed controlled and approved uses and follow the directions of the most restrictive label.

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WARRANTY AND DISCLAIMER

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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