

Precautionary Statements

HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)

DANGER

Corrosive. Causes eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Harmful if swallowed.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water.

Keep and wash PPE separately from other laundry.

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

User Safety Recommendations

Users should:

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

This pesticide is toxic to aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Environmental Hazards

Atrazine, which is present in this product, can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply Laddok 5L to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

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Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

General Information

Laddok® 5L herbicide is intended for the postemergence control of a broad spectrum of broadleaf weeds. Laddok 5L does not control grasses. Laddok 5L is effective mainly through contact action; therefore, weeds must be thoroughly covered with spray. Large crop-and-weed-leaf canopies shelter smaller weeds and prevent adequate spray coverage.

Corn and sorghum are tolerant to Laddok 5L at all stages of growth. Very slight leaf speckling of corn or sorghum may occur but plants generally outgrow this condition within 10 days.

Corn types included are field, sweet and popcorn and corn grown for seed or silage. Sorghum types include grain and forage. Always add UAN solution, oil concentrate, or Dash® spray adjuvant according to the section entitled **Additive Information**.

Timing of Applications

Apply Laddok 5L early postemergence when weeds are small and actively growing and before weeds reach the maximum size listed in the **Application Rate Table for Corn and Sorghum**. Such applications generally correspond to the crop growth stages of one to seven leaves.

Early application to weeds produces the most beneficial effect on weed control, allows use of the lower rate (depending

on weed species), and makes it easier to obtain thorough spray coverage. Delay in application which permits weeds to exceed the maximum size stated will result in inadequate control.

Do not cultivate within 5 days before or after application of Laddok 5L in the following states: AZ, CT, DE, IA, ID, IL, IN, KS, KY, ME, MA, MI, MN, MO, MT, NE, NH, NJ, NY, NC, ND, OH, OR, PA, RI, SD, UT, WA, WI, WV, WY. A cultivation 5 or more days after application may be necessary if all weeds are not controlled or if a second flush of weeds occurs.

Water Volume and Spray Pressure

Ground Equipment: Use a minimum of 10 gallons of water per broadcast acre and a minimum of 40 psi pressure (measured at the boom, not at the pump or in the line). When crop and weed foliage is dense use up to 50 gallons of water and up to 80 psi pressure. Use standard high pressure pesticide hollow cone or flat fan nozzles spaced 20 inches apart. DO not use flood or whirl chamber nozzles.

Air Equipment: Use a minimum of 5 gallons of water per acre and a maximum of 40 psi pressure. Use only diaphragm-type nozzles producing cone or fan spray patterns.

Aerial Application Special Directions

To obtain uniform coverage and to avoid drift hazards, the

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Following application equipment and practices should be used:

Nozzle Height: Maximum of 10 feet above crop.

Nozzle Orientation: Nozzles must be oriented so as to discharge straight back with the air stream (opposite the direction of travel of the aircraft) or at some angle between straight back and straight down.

Nozzles must be located no farther out than 3/4 the distance from the center of the aircraft to the end of the wing or rotor.

▶ **Water Volume and Spray Pressure:** See Air Equipment.

Do not apply Laddok 5L by aircraft when wind is blowing at a velocity above 10 mph. Coarse sprays (larger droplets) are less likely to drift.

Do not apply Laddok 5L by aircraft within 200 feet upwind of ornamental or sensitive nontarget crops such as soybeans, peanuts, cotton, sugar beets, sunflowers or okra.

» Applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

Special Information for Irrigated Areas

In irrigated areas, it may be necessary to irrigate prior to treatment with Laddok 5L to ensure weeds are growing

actively. Weeds growing under drought conditions usually are not satisfactorily controlled.

Additive Information

Nitrogen Solution: UAN (urea ammonium nitrate) solution or AMS (ammonium sulfate) may be added to Laddok 5L for improved control of velvetleaf. Improved control of cocklebur, wild sunflower, Pennsylvania smartweed, venice mallow and wild mustard may also be attained. Either nitrogen solution (UAN or AMS) should be added to Laddok 5L when velvetleaf is the primary target weed; however, oil concentrate should also be added when common lambsquarters or common ragweed is present. Consult the **Application Rate Table for Corn and Sorghum** for specific use recommendations.

UAN solution, commonly referred to as 28%, 30% or 32% nitrogen solution, is an agricultural grade fertilizer. Use only a high quality UAN solution suitable for application with herbicides.

AMS is a dry granular nitrogen source fertilizer. Several grades of AMS are currently available, however, only fine feed grade or spray grade AMS is recommended as an additive. Inferior grades of AMS do not dissolve adequately leading to plugging of spray nozzles. The use of AMS requires some preparation in mixing with Laddok 5L as compared to UAN. See section entitled **Mixing/Spraying** for AMS. Three quarts of liquid AMS (8-0-

0 analysis) may be substituted for 2.5 pounds granular AMS.

With the addition of a nitrogen solution to Laddok 5L on corn or sorghum, a slight leaf tip burn or yellowing and speckling may occur. New growth is normal and vigor is not reduced. Do not use brass or aluminum nozzles when spraying Laddok 5L with a nitrogen solution.

Rate of UAN Solution

Ground Application: 5% v/v (concentration); (1 gallon per acre maximum)

Air Application: 2 1/2% v/v (concentration) (1/2 gallon per acre maximum)

Rate of AMS

Ground Application: 2.5 pounds per acre

Air Application: AMS is not recommended due to potential precipitation problems in reduced water volumes. AMS can be used provided a minimum of 10 gpa of solution is applied. Use only if the source of AMS has been demonstrated to be successful in local experience.

Oil Concentrate of DASH: If a nitrogen solution is not used, a nonphytotoxic oil concentrate (commonly referred to as oil concentrate) or DASH should be added to the spray tank. Use oil concentrate if Canada thistle, yellow nutsedge or field bindweed are to be controlled. The oil concentrate must contain either a petroleum or

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vegetable oil base and must meet the following criteria: 1) be nonphytotoxic 2) contain only EPA-exempt ingredients, 3) provide good mixing quality in the jar test (see below), and 4) be successful in local experience.

The exact composition of suitable oil products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers which provide good mixing quality. For vegetable oil concentrates, it has been observed that highly refined vegetable oils are more satisfactory than unrefined vegetable oils. For additional information see Jar Test for Estimating Suitability of Mixes at the end of this section.

Rate of Oil Concentrate or Dash:

Ground Application: 1.25% v/v concentration (2 pints/acre maximum)

Air Application: 0.625% v/v concentration, (1 pint/acre maximum)

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Jar Test for Estimating Suitability of Oil Concentrate

1. **Water Supply:** Use only water from intended source and at the source temperature.

2. **Amount of Water in Jar:** For 20 gal/A spray volume use 3 1/2 cups (800 ml) of water.

For 10 gal/A spray volume use 1 3/4 cups (400 ml) of water.

For 5 gal/A spray volume use 3/4 cup (200 ml) of water.

For other spray volumes, adjust proportionately to above.

3. **Amount of herbicide and oil concentrate (or DASH) or UAN to add:** Add herbicide and oil concentrate or UAN solution at the rate of 1 teaspoon (5 ml) for each pint of recommended label rate.

4. **Add components in following sequence, gently mixing between component additions:**

- 1) Nitrogen solution (if used)
- 2) Laddok 5L
- 3) Other products (if used)
- 4) Oil concentrate or Dash (if used)

5. **Cap jar, invert 10 cycles, let stand for 15 minutes, evaluate.**

6. **Evaluation:** An ideal tank mix will be uniform; thus, the suitability of the oil concentrate is questionable if any of the following are observed:

Free oil at the surface - film or globules.

Flocculation - fine particles which may be suspended in the liquid or found as a precipitated layer at the bottom of the jar.

Clabbering - thickening texture (coagulated) resembling yogurt or a curd-like texture as with cottage cheese.

Application Rate Table for Corn and Sorghum

Weeds Controlled	Application Rates for Laddok 5L					
	1½ Pts/A*		1⅓ Pts/A*		2⅓ Pts/A*	
	Leaf Stage	Maximum Height (in)	Leaf Stage	Maximum Height (in)	Leaf Stage	Maximum Height (in)
Beggarticks	---	---	---	---	Up to 6	6
Bristly Starbur	---	---	---	---	Up to 4	2
Black Nightshade	---	---	2-4	1	2-4	1
Burcucumber	---	---	---	---	3	3
Cocklebur	2-4**	3	2-10**	8	2-10**	8
Common Groundsel	---	---	Up to 4	2	Up to 6	4
Common Lambsquarters	2-6	2	Up to 8	5	8-12	8
Common Ragweed	---	---	Up to 4	4	4-7	5
Davflower	---	---	---	---	Up to 6	4
Devilsclaw	---	---	---	---	Up to 6	3
Eastern Black Nightshade	---	---	2-4	1	2-4	1
Giant Ragweed	---	---	Up to 4	Up to 4	4-6	6
Jimsonweed	2-4	3	Up to 6	6	6-10	8
Kochia	---	---	---	4	---	4
Ladysthumb	2-6	4	Up to 10	10	10-14	12
Morningglory, Annual	---	---	Up to 4	4	4-6	6
Pennsylvania Smartweed	2-6	4	Up to 10	10	10-14	12
Prickly Sida or Teaweed	---	---	Up to 4	2	Up to 6	3
Redroot Pigweed	2-4	2	Up to 10	6	Up to 10	6
Smallflower Morningglory	---	---	Up to 4	4	4-6	6
Smooth Pigweed	2-4	2	Up to 10	6	Up to 10	6
Spurred Anoda	---	---	---	---	Up to 6	3
Tall Waterhemp	---	---	Up to 8	2	6-9	4
Velvetleaf	2-4	3	Up to 6	5	Up to 8	8
Velvetleaf***	2-4	3	Up to 8	8	8-10	10
Venice mallow	---	---	Up to 8	4	Up to 8	4
Wild Buckwheat	---	---	Up to 4	3	4-6	5
Wild Mustard	---	---	Up to 6	4	6-10	?
Wild Sunflower	---	---	Up to 5	6	4-6	8

Triazine Resistant Weeds See Special Directions Below
 Yellow Nutsedge See Special Directions Below
 Canada Thistle See Special Directions Below
 Field Bindweed See Special Directions Below

- * Always add UAN solution or oil concentrate or DASH to Laddok 5L. See section Additive Information
- ** Do not treat earlier than leaf stage shown and do not count cotyledon leaves.
- *** Always add nitrogen solution; see section entitled Additive Information.

Laddok 5L Application Rate Conversion Chart

The chart below may be used to calculate the amount of Laddok 5L required to treat the acreage listed. Select the rate of Laddok 5L required to control weeds according to the Application Rate Table. To calculate the number of gallons required to treat a specified acreage multiply the number of acres by the Multiplier listed below for the rate of Laddok 5L required for control.

Rate of Laddok 5L	Multiplier	6 Acres	10 Acres	50 Acres	100 Acres	Your Acreage
1½ pts/A	0.166	1.00	1.66	8.3	16.6	
1⅓ pts/A	0.225	1.35	2.25	11.25	22.5	
2⅓ pts/A	0.291	1.75	2.91	14.55	29.1	

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Mixing/Spraying

Fill tank of a thoroughly clean sprayer half to two-thirds full with clean water. Start agitation; add nitrogen solution then add **Laddok 5L**; allow to mix thoroughly. If used, add oil concentrate or **DASH** and remaining volume of water. Maintain constant agitation during application. Avoid allowing the mixture to stand overnight. Always clean sprayer thoroughly immediately after use by flushing the system with water and a strong detergent.

Do not allow cleaning water to contaminate wells, streams or ponds.

Ammonium Sulfate (AMS)

AMS may be added in place of UAN to the spray solution. Use AMS at 2 1/2 lbs/A. Use only fine feed grade or spray grade AMS. Fill sprayer tank two-thirds full with clean water. Begin agitation, slowly add required amount of AMS to the tank. Adding too quickly may clog outlet lines. Allow AMS crystals to dissolve completely. Complete mixing procedures by addition of **Laddok 5L** and remaining water. Maintain agitation during application to ensure complete mixing. Rinse equipment after use to minimize corrosive activity of AMS.

To determine AMS quality perform a jar test by adding 1/3 cup of AMS to 1 gallon of water and agitate 1 minute. If undissolved sediment is observed, predissolve AMS in water and filter prior to spray tank addition

Special Directions for Other Weed Problems

Postemergence application to corn and sorghum must be made before corn and sorghum reaches 12 inches in height.

Corn and Sorghum

- Canada Thistle
- Yellow Nutsedge
- Field Bindweed

For suppression of these weeds, apply 2 1/3 pints of **Laddok 5L** per acre when Canada thistle plants are from 8-10 inches tall. Add oil concentrate or **DASH** according to sections, **Additive Information**, and, **Mixing/Spraying**. For best results cultivate 7-14 days after application.

Triazine-Resistant Weeds

Triazine-resistant biotypes of *Amaranthus* (pigweeds), common lambsquarters, and common groundsel can be controlled with 1 1/5 - 2 1/3 pints/A of **Laddok 5L**. Apply according to weed sizes in

the **Application Rate Table** (Table 1).

Tank Mix of Laddok 5L plus Stinger® for Use in Field Corn

Canada thistle can be controlled by a tank mix of 1 1/5 - 2 1/3 pints/A of **Laddok 5L** plus 1/3 pint of **Stinger®** herbicide per acre. Apply when Canada thistle is at least 4 inches in diameter or height; when the majority of the basal leaves have emerged but before the bud stage.

Do not cultivate prior to application. Wait 14 to 20 days after application before cultivating. Refer to this label and the **STINGER** label for restrictions and limitations. The most restrictive labeling applies to tank mixes.

Mixing with Insecticides

It is permissible to tank mix an insecticide with **Laddok 5L** if the proper application timing of the insecticide coincides with the application timing for **Laddok 5L**. Insecticides that may be used are **Pounce®**, **Pydrin®**, **Furadan® 4F**, **Asana®**, dimethoate, malathion, and **Lorsban™ 4E**. The addition of an insecticide as a tank mix to **Laddok 5L** may increase



the potential for crop injury. Consult the respective labels for directions for use and restrictions and limitations of each product. The most restrictive labeling applies in tank mixes.

Before a tank mix of Laddok 5L plus an insecticide is mixed, a jar test should be conducted following the directions in the section, Jar Test for Estimating Suitability of Mixes.

Tank Mix of Laddok 5L Plus 2,4-D LVE for Use In Field and Silage Corn Only

A tank mix of Laddok 5L and 2,4-D LVE (low volatile ester) may be applied for postemergence control of the following troublesome broadleaf weeds; velvetleaf, tall waterhemp, sunflower, and the perennial weeds, Canada thistle, swamp smartweed and field bindweed. The tank mix should be applied to actively growing weeds. Refer to this label and the 2,4-D LVE label to define weeds controlled and conditions of best control. The most restrictive labeling applies to tank mix.

Time and Rate of Application

A tank mix of Laddok 5L plus 2,4-D LVE should be applied

after corn has fully emerged through the four-leaf stage of corn growth but before the fifth leaf is visible. Refer to the Recommended Rates for Postemergence Application of Laddok 5L plus 2,4-D for use rates.

Table 2
Recommended Rates for Postemergence Application of Laddok plus 2,4-D LVE for Broadleaf Weed Control

2,4-D LVE Rate*		
Rate of Laddok	4 lb/gal	6 lb/gal
1 1/2 pints/A	1/2 pint/A or 4 fluid oz/A	1/6 pint/A or 2.7 fluid oz/A

*Refer to the section Spray Additives

Spray Additives

UAN solution (commonly referred to as 28%, 30% or, 32% nitrogen solution) at 1 gallon per acre may be added to this tank mix to aid in the consistency of control of some broadleaf weeds such as velvetleaf. With the addition of UAN, a slight leaf tip burn or yellowing and speckling may occur. New growth is normal and vigor is not reduced.

Do not use brass or aluminum nozzles when UAN is used.

Do not use oil additives, surfactants or other additives

not recommended by each respective label.

Water Volume and Spray Pressure

Use a minimum of 10 gallons of total spray mixture per acre (broadcast basis) and 40 psi pressure with standard flat fan nozzles spaced 20 inches apart. Use only ground equipment to apply this tank mix.

Mixing

Fill tank of a thoroughly clean sprayer one-half to two-thirds full with clean water. Start agitation of UAN solution (if used) then add Laddok 5L; allow to mix thoroughly. While the agitator is running add 2,4-D LVE (refer to Jar Test for Estimating Suitability of Mixes), then add the remaining quantity of water.

Restrictions and Limitations for Laddok 5L Plus 2,4-D LVE Tank Mix (partial list)

Refer to each respective label for restrictions and limitations. The most restrictive labeling applies to tank mixes.

For use in field and silage corn only.

Do not apply on sorghum, popcorn, sweet corn, or corn



grown for seed.

Crop varieties vary in response to 2,4-D and some are injured. Apply this tank mix only to varieties known to be tolerant to 2,4-D.

Do not apply this treatment under cold, wet weather conditions or to corn growing under stress caused by weather, insects, disease, etc. Yellowing of the corn may result from this treatment, particularly if cold adverse growing conditions occur after application. Extended or extreme cold and wet conditions may reduce stands. Thoroughly clean sprayer immediately after spraying.

Tank Mix of Laddok 5L Plus Bladex 90 DF Herbicide for Use in Field and Silage Corn Only

General Information

A Laddok 5L plus Bladex® herbicide tank mix may be applied postemergence to field and silage corn for control of major troublesome broadleaf weeds and small annual grasses, and to reduce the potential triazine carryover into rotational crops. The tank mix should be applied to actively growing weeds. Annual

grasses controlled by a Laddok 5L plus Bladex 90 DF tank mix include; crabgrass, fall panicum, giant foxtail, goosegrass, green foxtail, stinkgrass (Indian lovegrass), witchgrass and yellow foxtail. Refer to Table 1 for broadleaf weed control. Refer to the label for Bladex 90 DF for defined conditions of best annual grass control. The most restrictive labeling applies to tank mixes.

Time and Rate of Application

A tank mix of Laddok 5L plus Bladex 90 DF should be applied after corn has fully emerged but before the fifth leaf is visible. Annual grasses must not exceed 1½" in height for adequate control. Refer to Table 1 for rate and timing for broadleaf weed control. Use Bladex 90 DF at a rate of 1½ lb/A.

Table 3

Laddok 5L Plus Bladex 90 DF Tank Mix Rate for Use in Field and Silage Corn

Laddok	Bladex 90 DF
1½ pts/A	1½ lb/A
1 ¹ / ₆ pts/A	1½ lb/A
2½ pts/A	1½ lb/A

Spray Additives

Under dry, arid conditions of low humidity and the

absence of dew formation at night, add the recommended rate of a surfactant such as X-77 spreader, or an emulsifiable vegetable (EV) oil suitable for use on growing corn. Do not use petroleum-based crop oils. Addition of a surfactant or EV oil is not recommended under moist, rainy conditions and when dew forms at night because injury may occur.

Water Volume and Spray Pressure

Use a minimum of 10 gallons of total spray mixture per acre (broadcast basis) and 40-50 psi pressure with standard high pressure hollow cone or flat fan nozzles spaced 20 inches apart. Use only ground equipment to apply this tank mix.

Mixing

Fill the spray tank half full with water and add the recommended amount of Laddok 5L, BLADEX 90 DF and additive, if used, while the agitator is running. Then add the remaining quantity of water.

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Restrictions and Limitations for Laddok 5L plus Bladex 90 DF Tank Mix (Partial List)

Refer to each respective label for restrictions and limitations. The most restrictive labeling applies to tank mixes.

Do not use this tank mix on sand, loamy sand or sandy loam soils that have 1% or less organic matter.

Do not apply to corn if the fifth leaf is visible.

Do not apply this treatment under cold, wet weather conditions or to corn growing under stress caused by weather, insects, disease, etc. Yellowing of the corn may result from this treatment, particularly if cold adverse growing conditions occur after application. Extended or extreme cold and wet conditions may reduce stands.

Plant only corn, peanuts, sorghum, or soybeans the year following use of this mixture. Small grains may be planted 15 months after application and all other crops may be planted after 18 months.

Do not apply on sorghum, popcorn, sweet corn, or corn grown for seed.

Do not use liquid fertilizer as a carrier for this tank mix; use water only.

Do not apply this tank mix by aerial equipment.

Restrictions and Limitations for Laddok 5L

Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

This product may not be mixed/loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sink holes.

This product may not be mixed or loaded within 50 feet of intermittent streams or rivers, natural or impounded lakes or reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams or rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or set-back from runoff points must be planted to crop or seeded with grass or other suitable crop.

Where there are state/local requirements regarding

atrazine use (including lower maximum rates and/or higher set-backs) which are different from the label, the more restrictive requirements apply.

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

For postemergence applications, if there has been no previous soil application, the maximum rate of atrazine from all sources is 2 pounds ai/A. If there has been a previous soil application to that crop, do not exceed a total of 2.5 pounds ai/A per calendar year.

Postemergence application to corn and sorghum must be made before corn and sorghum reach 12 inches in height.

Do not make more than one application of Laddok 5L per season.

Do not use Laddok 5L when crop is under stress from prolonged cold, wet weather, poor fertility, or other factors or when crop is wet and succulent from recent rainfall, as crop injury may occur.

Do not apply Laddok 5L if crop shows injury (leaf phytotoxicity and/or plant stunting) produced by any other prior herbicide

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applications, because this injury may be enhanced and/or prolonged.

Do not apply Laddok 5L during prolonged periods of drought or during unseasonable cold weather, as unsatisfactory weed control may result.

Seed producers should consult the seed company regarding tolerance of seed population inbred lines to Laddok 5L.

Do not apply to sorghum that is heading out or blooming.

Do not graze treated area or feed treated forage to livestock for 21 days following application.

Rainfall or overhead irrigation soon after application may reduce the effectiveness of Laddok 5L.

Do not mix or apply Laddok 5L with any other fertilizer except as specifically recommended on this labeling.

Do not plant sugar beets or sunflower the season following application.

Do not plant oats the season following the application of Laddok 5L in soil having a calcareous surface layer.

In the intermountain region of the United States, do not plant any other crop the year following the application of Laddok 5L except corn or sorghum.

Storage and Disposal

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

Storage

Store above 15°F.

Pesticide Disposal

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

Container Disposal

Triple-rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by

burning. If burned, stay out of smoke.

Bulk / Mini-Bulk Containers

Refillable/reusable containers should be returned to the point of purchase for cleaning and refilling. Refillable/reusable containers must be thoroughly cleaned before refilling.

In Case of Emergency

In case of large-scale spillage regarding this product: avoid contact, isolate area and keep out animals and unprotected persons. Confine spill and call:

CHEMTREC 800-424-9300
BASF CORP 800-832-HELP

In case of medical emergency regarding this product, call:

1. Your local doctor for immediate treatment,
2. Your local poison control center (hospital),
3. BASF 800-832-HELP.

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Appendix

Common Name	Scientific Name
Beggerticks	<i>Bidens frondosa</i>
Black Nightshade	<i>Solanum nigrum</i>
Bristly Starbur	<i>Sicyos angulatus</i>
Burcucumber	<i>Acanthospermum hispidum</i>
Canada Thistle	<i>Cirsium arvense</i>
Cocklebur	<i>Xanthium strumarium</i>
Common Lambsquarters	<i>Chenopodium album</i>
Common Ragweed	<i>Ambrosia artemisiifolia</i>
Dayflower	<i>Commelina spp.</i>
Devilsclaw	<i>Proboscidea louisianica</i>
Eastern Black Nightshade	<i>Solanum ptycanthum</i>
Field Bindweed	<i>Convolvulus arvensis</i>
Giant Ragweed	<i>Ambrosia trifida</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Morningglory, Annual	<i>Ipomoea spp.</i>
Pennsylvania Smartweed	<i>Polygonum pennsylvanicum</i>
Prickly Side or Teaweed	<i>Sida spinosa</i>
Redroot Pigweed	<i>Amaranthus retroflexus</i>
Smallflower Morningglory	<i>Jacquemontia tamnifolia</i>
Smooth Pigweed	<i>Amaranthus hybridus</i>
Spurred Anoda	<i>Anoda cristata</i>
Tall Waterhemp	<i>Amaranthus tuberculatus</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Wild Buckwheat	<i>Polygonum convolvulus</i>
Wild Mustard	<i>Sinapis arvensis</i>
Wild Sunflower	<i>Helianthus annuus</i>
Yellow Nutsedge	<i>Cyperus esculentus</i>

the chemical description on the label and is reasonably fit for the purposes referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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Dash is a registered trademark of BASF Corporation.

Asana, Pydrin and Bladex are registered trademarks of E.I DuPont Nemours and Co., Inc.

Lorsban is a registered trademark of the Dow Chemical Company.

Stinger is a registered trademark of the DowElanco Chemical Company.

Furadan and Pounce are registered trademarks of FMC Corporation.

X-77 is a registered trademark of Chevron Chemical Company.

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Conditions of Sale and Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of **BASF Corporation ("BASF")** or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to

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Reg # 7969-100

PM-25

1924

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

JUL 19 1994

Edward G. Jordan, Ph.D.
Registration Scientist
BASF Corporation
Agricultural Products
P.O. Box 13528
Research Triangle Park, NC 27709-3528

Dear Dr. Jordan:

SUBJECT: Review of Amended Labeling for WPS
Review of Amended Labeling for Changes in Directions for
Use and Addition of a Tank Mix
Laddock® 5L Herbicide
EPA Reg. No. 7969-100
Your Letters Dated 05/25/94 and 05/27/94

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments listed below. One copy of the finished labeling must be submitted prior to releasing the product for shipment. The final label must incorporate both of the labeling amendments noted above.

1. Under the **Environmental Hazards** section, modify the last sentence to read "Do not contaminate water when disposing of equipment wash waters."
2. In the **Agricultural Use Requirements** box, the fourth sentence should be modified to read "It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry intervals."
3. Under the **Tank Mix With Atrazine** section, you may want to correct the word "my" to "may" in the first sentence under **Restrictions and Limitations for Laddock 5L**.

If you have any questions, then please contact Terri Stowe of my staff at (703) 305 - 6117.

Sincerely yours,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (7505C)

Enclosures

2724

RESTRICTED USE PESTICIDE

DUE TO GROUND AND SURFACE WATER CONCERNS

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.

BASF

Not intended for use in California.

Laddok® 5L

herbicide

Postemergence Flowable Herbicide

For selective postemergence broadleaf weed control in field corn, seed corn, silage corn, sweet corn and popcorn; and in sorghum.

Active Ingredients:

Sodium salt of bentazon* [3-(isopropyl)-1H-2,1,3-benzothiadiazin-4(3H)-one,2,2-dioxide]	27.6%
Atrazine* (2-chloro-4-ethylamino-6-isopropylamino-s-triazine)	25.0%
Inert Ingredients:	47.4%
TOTAL	100.0%

*Equivalent to 2.5 pounds per gallon each of bentazon and atrazine.

EPA Reg. No. 7969-100

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

PRECAUCION AL USUARIO; Si usted no lee ingles, no use este producto hasta que la eti queta haya sido explicada ampliamente.

Corrosive. Causes eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful if swallowed.

If in eyes, immediately flush eyes with plenty of water. Get medical attention. If on skin, immediately flush skin with plenty of water. Get medical attention if irritation persists. May cause allergic skin response.

Shake Well Before Using

Net Contents 2 1/2 gallons

BASF Corporation

PO Box 13528, Research Triangle Park, NC 27709-3528

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7969-100

Environmental Hazards

Atrazine, which is present in this product, can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply Laddok 5L to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

This pesticide is toxic to aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

Re-entry and Workers' Protection Statements

Users are required to wear long-sleeved shirts and long pants or equivalent, chemical resistant gloves, and boots (waterproofed). In addition, persons involved in mixing/loading operations are required to use heavy-duty chemical resistant gloves or neoprene gloves and a face shield or goggles.

Do not apply this product in such a manner as to directly or through drift, expose workers or other persons. The area being treated must be vacated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Directions for Use

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

General Information

Laddok® 5L herbicide is intended for the postemergence control of a broad spectrum of broadleaf weeds. Laddok 5L does not control grasses. Laddok 5L is effective mainly through contact action; therefore, weeds must be thoroughly covered with spray. Large crop-and-weed-leaf canopies shelter smaller weeds and prevent adequate spray coverage.

Corn and sorghum are tolerant to Laddok 5L at all stages of growth. Very slight leaf speckling of corn or sorghum may occur but plants generally outgrow this condition within 10 days.

Corn types included are field, sweet and popcorn and corn grown for seed or silage. Sorghum types include grain and forage. Always add UAN solution, oil concentrate, or

Dash® HC spray adjuvant according to the section entitled Additive Information.

Timing of Applications

Apply Laddok 5L early postemergence when weeds are small and actively growing and before weeds reach the maximum size listed in the Application Rate Table for Corn and Sorghum. Such applications generally correspond to the crop growth stages of one to seven leaves.

Early application to weeds produces the most beneficial effect on weed control, allows use of the lower rate (depending on weed species), and makes it easier to obtain thorough spray coverage. Delay in application which permits weeds to exceed the maximum size stated will result in inadequate control.

Do not cultivate within 5 days before or after application of Laddok 5L in the following states: AZ, CT, DE, IA, ID, IL, IN, KS, KY, ME, MA, MI, MN, MO, MT, NE, NH, NJ, NY, NC, ND, OH, OR, PA, RI, SD, UT, WA, WI, WV, WY. A cultivation 5 or more days after application may be necessary if all weeds are not controlled or if a second flush of weeds occurs.

Water Volume and Spray Pressure

Ground Equipment: Use a minimum of 10 gallons of water per broadcast acre and a minimum of 40 psi pressure (measured at the boom, not at the pump or in the line). When crop and weed foliage is dense use up to 50 gallons of water

and up to 80 psi pressure. Use standard high pressure pesticide hollow cone or flat fan nozzles spaced 20 inches apart. Do not use flood or whirl chamber nozzles.

Air Equipment: Use a minimum of 5 gallons of water per acre and a maximum of 40 psi pressure. Use only diaphragm-type nozzles producing cone or fan spray patterns.

Aerial Application Special Directions

To obtain uniform coverage and to avoid drift hazards, the following application equipment and practices should be used:

Nozzle Height: Maximum of 10 feet above crop.

Nozzle Orientation: Nozzles must be oriented so as to discharge straight back with the air stream (opposite the direction of travel of the aircraft) or at some angle between straight back and straight down.

Nozzles must be located no farther out than 3/4 the distance from the center of the aircraft to the end of the wing or rotor.

Water Volume and Spray Pressure: See Air Equipment.

Do not apply Laddok 5L by aircraft when wind is blowing at a velocity above 10 mph. Coarse sprays (larger droplets) are less likely to drift.

Do not apply Laddok 5L by aircraft within 200 feet upwind of ornamental or sensitive

nontarget crops such as soybeans, peanuts, cotton, sugar beets, sunflowers or okra.

Applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

Special Information for Irrigated Areas

In irrigated areas, it may be necessary to irrigate prior to treatment with Laddok 5L to ensure weeds are growing actively. Weeds growing under drought conditions usually are not satisfactorily controlled.

Additive Information

Nitrogen Solution: UAN (urea ammonium nitrate) solution or AMS (ammonium sulfate) may be added to Laddok 5L for improved control of velvetleaf. Improved control of cocklebur, wild sunflower, Pennsylvania smartweed, venice mallow and wild mustard may also be attained. Either nitrogen solution (UAN or AMS) should be added to Laddok 5L when velvetleaf is the primary target weed; however, oil concentrate should also be added when common lambsquarters or common ragweed is present. Consult the Application Rate Table for Corn and Sorghum for specific use recommendations.

UAN solution, commonly referred to as 28%, 30% or, 32% nitrogen solution, is an agricultural grade fertilizer. Use only a high quality UAN solution suitable for application with herbicides.

AMS is a dry granular nitrogen source fertilizer. Several grades of AMS are currently available, however, only fine feed grade or spray grade AMS is recommended as an additive. Inferior grades of AMS do not dissolve adequately leading to plugging of spray nozzles. The use of AMS requires some preparation in mixing with Laddok 5L as compared to UAN. See section entitled Mixing/Spraying for AMS. Three quarts of liquid AMS (8-0-0 analysis) may be substituted for 2.5 pounds granular AMS.

With the addition of a nitrogen solution to Laddok 5L on corn or sorghum, a slight leaf tip burn or yellowing and speckling may occur. New growth is normal and vigor is not reduced. Do not use brass or aluminum nozzles when spraying Laddok 5L with a nitrogen solution.

Rate of UAN Solution

Ground Application: 5% v/v (concentration); (1 gallon per acre maximum).

Air Application: 2 1/2% v/v (concentration) (1/2 gallon per acre maximum).

Rate of AMS

Ground Application: 2.5 pounds per acre.

Air Application: AMS is not recommended due to potential precipitation problems in reduced water volumes. AMS can be used provided a minimum of 10 gpa of solution is applied. Use only if the source of AMS has been demonstrated to be successful

in local experience.

Oil Concentrate or Dash HC: If a nitrogen solution is not used, a nonphytotoxic oil concentrate (commonly referred to as oil concentrate) or Dash HC should be added to the spray tank. Use oil concentrate if Canada thistle, yellow nutsedge or field bindweed are to be controlled. The oil concentrate must contain either a petroleum or vegetable oil base and must meet the following criteria: 1) be nonphytotoxic 2) contain only EPA-exempt ingredients, 3) provide good mixing quality in the jar test (see below), and 4) be successful in local experience.

The exact composition of suitable oil products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers which provide good mixing quality. For vegetable oil concentrates, it has been observed that highly refined vegetable oils are more satisfactory than unrefined vegetable oils. For additional information see Jar Test for Estimating Suitability of Mixes at the end of this section.

Rate of Oil Concentrate

Ground Application: 1.25% v/v concentration (2 pints/A maximum).

Air Application: 0.625% v/v concentration. (1 pint/A maximum).

Rate of Dash HC:

Ground Application: 0.625% v/v concentration (1 pint/A maximum).

Air Application: 0.31% v/v concentration (1/2 pint/A maximum).

Jar Test for Estimating Suitability of Oil Concentrate

1. **Water Supply:** Use only water from intended source and at the source temperature.

2. **Amount of Water in Jar:** For 20 gal/A spray volume use 3 1/2 cups (800 ml) of water.

For 10 gal/A spray volume use 1 3/4 cups (400 ml) of water.

For 5 gal/A spray volume use 5/8 cup (200 ml) of water.

For other spray volumes, adjust proportionately to above.

3. **Amount of herbicide and oil concentrate (or Dash HC) or UAN to add:** Add herbicide and oil concentrate or UAN solution at the rate of 1 teaspoon (5 ml) for each pint of recommended label rate.

4. **Add components in following sequence,** gently mixing between component additions:

- 1) Nitrogen solution (if used)
- 2) Laddok 5L
- 3) Other products (if used)
- 4) Oil concentrate or Dash HC (if used)

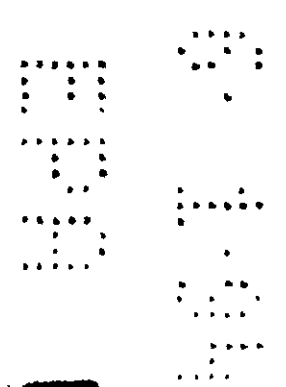
5. **Cap jar, invert 10 cycles,** let stand for 15 minutes, evaluate.

6. **Evaluation:** An ideal tank mix will be uniform; thus, the suitability of the oil concentrate is questionable if any of the following are observed:

Free oil at the surface - film or globules.

Flocculation - fine particles which may be suspended in the liquid or found as a precipitated layer at the bottom of the jar.

Clabbering - thickening texture (coagulated) resembling yogurt or a curd-like texture as with cottage cheese.



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Table 1
Application Rate Table for Corn and Sorghum

Weeds Controlled	Application Rates for Laddok 5L					
	1½ Pints/A*		1¾ Pints/A*		2½ Pints/A*	
	Leaf Stage	Maximum Height (in)	Leaf Stage	Maximum Height (in)	Leaf Stage	Maximum Height (in)
Beggarticks	---	---	---	---	Up to 6	6
Bristly Starbur	---	---	---	---	Up to 4	2
Black Nightshade	---	---	2-4	1	2-4	1
Burcucumber	---	---	---	---	3	3
Cocklebur	2-4**	3	2-10**	8	2-10**	8
Common Groundsel	---	---	Up to 4	2	Up to 6	4
Common Lambsquarters	2-6	2	Up to 8	5	8-12	8
Common Ragweed	---	---	Up to 4	4	4-7	5
Dayflower	---	---	---	---	Up to 6	4
Devilsclaw	---	---	---	---	Up to 6	3
Eastern Black Nightshade	---	---	2-4	1	2-4	1
Giant Ragweed	---	---	Up to 4	4	4-6	6
Jimsonweed	2-4	3	Up to 6	6	6-10	8
Kochia	---	---	---	4	---	4
Ladysthumb	2-6	4	Up to 10	10	10-14	12
Morningglory, Annual	---	---	Up to 4	4	4-6	6
Pennsylvania Smartweed	2-6	4	Up to 10	10	10-14	12
Prickly Sida or Teaweed	---	---	Up to 4	2	Up to 6	3
Redroot Pigweed	2-4	2	Up to 10	6	Up to 10	6
Smallflower Morningglory	---	---	Up to 4	4	4-6	6
Smooth Pigweed	2-4	2	Up to 10	6	Up to 10	6
Spurred Anoda	---	---	---	---	Up to 6	3
Tall Waterhemp	---	---	Up to 8	2	6-9	4
Velvetleaf***	2-4	3	Up to 6	5	Up to 8	8
Venice mallow	---	---	Up to 8	4	Up to 8	4
Wild Buckwheat	---	---	Up to 4	3	4-6	5
Wild Mustard	---	---	Up to 6	4	6-10	8
Wild Sunflower	---	---	Up to 5	6	4-6	8
Triazine Resistant Weeds	See Special Directions Below					
Yellow Nutsedge	See Special Directions Below					
Canada Thistle	See Special Directions Below					
Field Bindweed	See Special Directions Below					
<ul style="list-style-type: none"> * Always add UAN solution or oil concentrate or Dash HC to Laddok 5L. See section Additive Information. ** Do not treat earlier than leaf stage shown and do not count cotyledon leaves. *** Addition of UAN or AMS will allow control of velvetleaf at the 8-leaf stage or 8 inch maximum height using 1¾ pints/A; or at the 10-leaf stage or 10 inch maximum height using 2½ pints/A. 						

Laddok 5L Application Rate Conversion Chart

The chart below may be used to calculate the amount of Laddok 5L required to treat the acreage listed. Select the rate of Laddok 5L required to control weeds according to the Application Rate Table. To calculate the number of gallons required to treat a specified acreage multiply the number of acres by the Multiplier listed below for the rate of Laddok 5L required for control.

Rate of Laddok 5L	Multiplier	6 Acres	10 Acres	50 Acres	100 Acres	Other Acreage
		Gallons of Laddok 5L				
1½ pts/A	0.166	1.00	1.66	8.3	16.6	
1¾ pts/A	0.208	1.25	2.08	10.40	20.8	
2½ pts/A	0.291	1.75	2.91	14.55	29.1	

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Mixing/Spraying

Fill tank of a thoroughly clean sprayer half to two-thirds full with clean water. Start agitation; add nitrogen solution then add **Laddok 5L**; allow to mix thoroughly. If used, add oil concentrate or **Dash HC** and remaining volume of water. Maintain constant agitation during application. Avoid allowing the mixture to stand overnight. Always clean sprayer thoroughly immediately after use by flushing the system with water and a strong detergent. Do not allow cleaning water to contaminate wells, streams or ponds.

Ammonium Sulfate (AMS)

AMS may be added in place of UAN to the spray solution. Use AMS at 2½ lbs/A. Use only fine feed grade or spray grade AMS. Fill sprayer tank two-thirds full with clean water. Begin agitation, slowly add required amount of AMS to the tank. Adding too quickly may clog outlet lines. Allow AMS crystals to dissolve completely. Complete mixing procedures by addition of **Laddok 5L** and remaining water. Maintain agitation during application to ensure complete mixing. Rinse equipment after use to minimize corrosive activity of AMS.

To determine AMS quality perform a jar test by adding ¼ cup of AMS to 1 gallon of water and agitate 1 minute. If undissolved sediment is observed, predissolve AMS in water and filter prior to spray tank addition.

Special Directions for Other Weed Problems

Postemergence application to corn and sorghum must be made before corn and sorghum reaches 12 inches in height.

Corn and Sorghum

Canada Thistle
Yellow Nutsedge
Field Bindweed

For suppression of these weeds, apply 2½ pints of **Laddok 5L** per acre when Canada thistle plants are from 8-10 inches tall up to the bud stage, field bindweed vines are 8 to 10 inches long, or yellow nutsedge is 1 to 4 inches tall. Add oil concentrate or **Dash HC** according to sections, **Additive Information**, and, **Mixing/Spraying**. For best results cultivate 7-14 days after application.

Triazine-Resistant Weeds

Triazine-resistant biotypes of *Amaranthus* (pigweeds), common lambsquarters, and common groundsel can be controlled with 1½ to 2½ pints/A of **Laddok 5L**. Apply according to weed sizes in the **Application Rate Table** (Table 1).

Tank Mix of Laddok 5L plus Stinger® for Use in Field Corn

Canada thistle can be controlled by a tank mix of 1½ to 2½ pints/A of **Laddok 5L** plus ½ pint of **Stinger** herbicide per acre. Apply when Canada thistle is at least 4 inches in diameter or height; when the majority of the

basal leaves have emerged but before the bud stage.

Do not cultivate prior to application. Wait 14 to 20 days after application before cultivating. Refer to this label and the **Stinger** label for restrictions and limitations. The most restrictive labeling applies to tank mixes.

Mixing with Insecticides

It is permissible to tank mix an insecticide with **Laddok 5L** if the proper application timing of the insecticide coincides with the application timing for **Laddok 5L**. Insecticides that may be used are **Pounce®**, **Pydrin®**, **Furadan® 4F**, **Asana®**, dimethoate, malathion, and **Lorsban™ 4E**. The addition of an insecticide as a tank mix to **Laddok 5L** may increase the potential for crop injury. Consult the respective labels for directions for use and restrictions and limitations of each product. The most restrictive labeling applies in tank mixes.

Before a tank mix of **Laddok 5L** plus an insecticide is mixed, a jar test should be conducted following the directions in the section, **Jar Test for Estimating Suitability of Mixes**.

Tank Mix of Laddok 5L Plus 2,4-D LVE for Use in Field and Silage Corn Only

A tank mix of **Laddok 5L** and 2,4-D LVE (low volatile ester) may be applied for postemergence control of the

following troublesome broadleaf weeds: velvetleaf, tall waterhemp, sunflower and the perennial weeds, Canada thistle, swamp smartweed and field bindweed. The tank mix should be applied to actively growing weeds. Refer to this label and the 2,4-D LVE label to define weeds controlled and conditions of best control. The most restrictive labeling applies to tank mixes.

Time and Rate of Application

A tank mix of Laddok 5L plus 2,4-D LVE should be applied after corn has fully emerged through the four-leaf stage of corn growth but before the fifth leaf is visible. Refer to the Recommended Rates for Postemergence Application of Laddok 5L plus 2,4-D for use rates.

Table 2
Recommended Rates for Postemergence Application of Laddok 5L Plus 2,4-D LVE for Broadleaf Weed Control

2,4-D LVE Rate*		
Rate of Laddok 5L	4 lbs/ Gallon	6 lbs/ Gallon
1½, 1¾, or 2½ pints/A	¼ pint/A or 4 fluid oz/A	1/6 pint/A or 2.7 fluid oz/A
*Refer to the section Spray Additives		

Spray Additives

UAN solution (commonly referred to as 28%, 30% or, 32% nitrogen solution) at 1 gallon per acre may be added to this tank mix to aid in the

consistency of control of some broadleaf weeds such as velvetleaf. With the addition of UAN, a slight leaf tip burn or yellowing and speckling may occur. New growth is normal and vigor is not reduced.

Do not use brass or aluminum nozzles when UAN is used.

Do not use oil additives, surfactants or other additives not recommended by each respective label.

Water Volume and Spray Pressure

Use a minimum of 10 gallons of total spray mixture per acre (broadcast basis) and 40 psi pressure with standard flat fan nozzles spaced 20 inches apart. Use only ground equipment to apply this tank mix.

Mixing

Fill tank of a thoroughly clean sprayer one-half to two-thirds full with clean water. Start agitation of UAN solution (if used) then add Laddok 5L; allow to mix thoroughly. While the agitator is running add 2,4-D LVE (refer to Jar Test for Estimating Suitability of Mixes), then add the remaining quantity of water.

Restrictions and Limitations for Laddok 5L Plus 2,4-D LVE Tank Mix (Partial List)

Refer to each respective label for restrictions and limitations. The most restrictive labeling applies to tank mixes.

For use in field and silage corn

only.

Do not apply on sorghum, popcorn, sweet corn, or corn grown for seed.

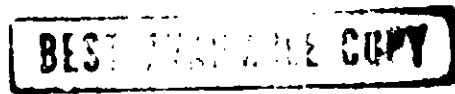
Crop varieties vary in response to 2,4-D and some are injured. Apply this tank mix only to varieties known to be tolerant to 2,4-D.

Do not apply this treatment under cold, wet weather conditions or to corn growing under stress caused by weather, insects, disease, etc. Yellowing of the corn may result from this treatment, particularly if cold adverse growing conditions occur after application. Extended or extreme cold and wet conditions may reduce stands. Thoroughly clean sprayer immediately after spraying.

Tank Mix of Laddok 5L Plus Bladex 90 DF Herbicide for Use in Field and Silage Corn Only

General Information

A Laddok 5L plus Bladex® herbicide tank mix may be applied postemergence to field and silage corn for control of major troublesome broadleaf weeds and small annual grasses, and to reduce the potential triazine carryover into rotational crops. The tank mix should be applied to actively growing weeds. Annual grasses controlled by a Laddok 5L plus Bladex 90 DF tank mix include; crabgrass, fall panicum, giant



foxtail, goosegrass, green foxtail, stinkgrass (Indian lovegrass), witchgrass and yellow foxtail. Refer to Table 1 for broadleaf weed control. Refer to the label for **Bladex 90 DF** for defined conditions of best annual grass control. The most restrictive labeling applies to tank mixes.

Time and Rate of Application

A tank mix of **Laddok 5L** plus **Bladex 90 DF** should be applied after corn has fully emerged but before the fifth leaf is visible. Annual grasses must not exceed 1 1/2" in height for adequate control. Refer to Table 1 for rate and timing for broadleaf weed control. Use **Bladex 90 DF** at a rate of 1 1/2 lbs/A.

Table 3

Laddok 5L Plus Bladex 90 DF Tank Mix Rate for Use in Field and Silage Corn

Laddok 5L	Bladex 90 DF
1 1/2 pts/A	1 1/2 lbs/A
1 3/4 pts/A	1 1/2 lbs/A
2 1/2 pts/A	1 1/2 lbs/A

Spray Additives

Under dry, arid conditions of low humidity and the absence of dew formation at night, add the recommended rate of a surfactant such as **X-77**® spreader, or an emulsifiable vegetable (EV) oil suitable for use on growing corn. **Do not use petroleum-based crop oils.** Addition of a surfactant or EV oil is not recommended under moist, rainy conditions and

when dew forms at night because injury may occur.

Water Volume and Spray Pressure

Use a minimum of 10 gallons of total spray mixture per acre (broadcast basis) and 40-50 psi pressure with standard high pressure hollow cone or flat fan nozzles spaced 20 inches apart. Use only ground equipment to apply this tank mix.

Mixing

Fill the spray tank half full with water and add the recommended amount of **Laddok 5L**, **Bladex 90 DF** and additive, if used, while the agitator is running. Then add the remaining quantity of water.

Restrictions and Limitations for Laddok 5L Plus Bladex 90 DF Tank Mix (Partial list)

Refer to each respective label for restrictions and limitations. The most restrictive labeling applies to tank mixes.

Do not use this tank mix on sand, loamy sand or sandy loam soils that have 1% or less organic matter.

Do not apply to corn if the fifth leaf is visible.

Do not apply this treatment under cold, wet weather conditions or to corn growing under stress caused by weather, insects, disease, etc. Yellowing of the corn may

result from this treatment, particularly if cold adverse growing conditions occur after application. Extended or extreme cold and wet conditions may reduce stands.

Plant only corn, peanuts, sorghum, or soybeans the year following use of this mixture. Small grains may be planted 15 months after application and all other crops may be planted after 18 months.

Do not apply on sorghum, popcorn, sweet corn, or corn grown for seed.

Do not use liquid fertilizer as a carrier for this tank mix; use water only.

Do not apply this tank mix by aerial equipment.

Tank Mix With Atrazine

For postemergence use in corn and sorghum.

General Information

The tank mix of **Laddok 5L** herbicide plus atrazine herbicide may be applied for postemergence control of broadleaf weeds at the proper growth stage for treatment as specified on this label. The addition of atrazine will provide residual weed control and provide suppression of giant, green and yellow foxtail.

This tank mix is effective through contact action. Therefore, weeds must be thoroughly covered with spray. Large crop and weed canopies shelter smaller weeds and

prevent adequate spray coverage.

Atrazine products compatible with Laddok 5L include AAtrex® 4L and AAtrex® Nine-O herbicides as well as other similar generic formulations containing atrazine. Refer to the respective atrazine labels for additional directions and limitations.

Time and Rate of Application

Apply the tank mix of Laddok 5L plus atrazine early postemergence when weeds are small and actively growing but before weeds reach the maximum size listed on the Laddok 5L label. Apply the recommended amount of Laddok 5L according to the Application Rate Chart for Laddok 5L herbicide plus atrazine.

Application Rate Chart for Laddok 5L Plus Atrazine

Laddok 5L	Atrazine*	Oil Concentrate**
1½ pts/A	1 lb/A	1.25% v/v
1½ pts/A	1 lb/A	1.25% v/v
2½ pts/A	0.75 lb/A	1.25% v/v
* See Restrictions and Limitations for maximum amounts of atrazine allowable per season ** 1.25% v/v = 1 pt/10 gals water or 1.25 gal/100 gals of spray solution		

Water Volume and Spray Pressure

Apply recommended rates of this tank mix as follows:

Ground equipment only: Use a minimum of 10 gallons of water per acre on a broadcast basis. Use a minimum of 40 psi pressure (measured at the boom, not at the pump or in the line) with standard flat fan nozzles spaced 20 inches apart.

Spray Additives

A nonphytotoxic oil concentrate (commonly referred to as oil concentrate) or Dash HC spray additive should be added to the spray tank. A nitrogen solution may be substituted for oil concentrate. Nitrogen solutions which may be used are UAN or AMS. Apply UAN at a rate of 5% v/v (5 gal/100 gal of spray solution or AMS at rate of 2½ lbs/A).

Restrictions and Limitations for Laddok 5L Plus Atrazine (Partial List)

Refer to each respective label for restrictions and limitations. The most restrictive labeling applies when using a tank mix.

Use only on field corn and grain sorghum.

Restrictions and Limitations for Laddok 5L
Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

This product may not be mixed/loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sink holes.

This product may not be mixed

or loaded within 50 feet of intermittent streams or rivers, natural or impounded lakes or reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams or rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or set-back from runoff points must be planted to crop or seeded with grass or other suitable crop.

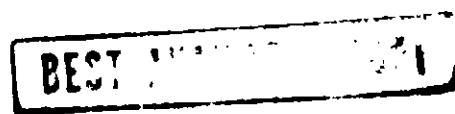
Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs) which are different from the label, the more restrictive requirements apply.

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

For postemergence applications, if there has been no previous soil application, the maximum rate of atrazine from all sources is 2 pounds ai/A. If there has been a previous soil application to that crop, do not exceed a total of 2.5 pounds ai/A per calendar year.

Postemergence application to corn and sorghum must be made before corn and sorghum reach 12 inches in height.

Do not make more than one application of Laddok 5L per season.



Do not use **Laddok 5L** when crop is under stress from prolonged cold, wet weather, poor fertility, or other factors or when crop is wet and succulent from recent rainfall, as crop injury may occur.

Do not apply **Laddok 5L** if crop shows injury (leaf phytotoxicity and/or plant stunting) produced by any other prior herbicide applications, because this injury may be enhanced and/or prolonged.

Do not apply **Laddok 5L** during prolonged periods of drought or during unseasonably cold weather, as unsatisfactory weed control may result.

Seed producers should consult the seed company regarding tolerance of seed population inbred lines to **Laddok 5L**.

Do not apply to sorghum that is heading out or blooming.

Do not graze treated area or feed treated forage to livestock for 21 days following application.

Rainfall or overhead irrigation soon after application may reduce the effectiveness of **Laddok 5L**.

Do not mix or apply **Laddok 5L** with any other fertilizer except as specifically recommended on this labeling.

Do not plant sugar beets or sunflower the season following application.

Do not plant oats the season following the application of **Laddok 5L** in soil having a calcareous surface layer.

In the Intermountain Region of the United States, do not plant any other crop the year following the application of **Laddok 5L** except corn or sorghum.

Storage and Disposal

Store above 15°F.

Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Triple-rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by

incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Bulk/Mini-Bulk Containers

Refillable/reusable containers should be returned to the point of purchase for cleaning and refilling. Refillable/reusable containers must be thoroughly cleaned before refilling.

In Case of Emergency

In case of large-scale spillage regarding this product: avoid contact, isolate area and keep out animals and unprotected persons. Confine spill and call: **CHEMTREC 800-424-9300**
BASF CORP 800-832-HELP

In case of medical emergency regarding this product, call:

1. Your local doctor for immediate treatment,
2. Your local poison control center (hospital),
3. BASF 800-832-HELP.

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Conditions of Sale and Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently

associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control

of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer.

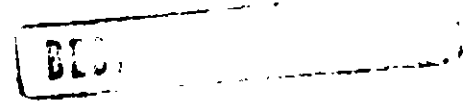
BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the inherent risks referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Appendix

Common Name	Scientific Name
Beggarticks	<i>Bidens frondosa</i>
Black Nightshade	<i>Solanum nigrum</i>
Bristly Starbur	<i>Acanthospermum hispidum</i>
Burcucumber	<i>Sicyos angulatus</i>
Canada Thistle	<i>Cirsium arvense</i>
Cocklebur	<i>Xanthium strumarium</i>
Common Lambsquarters	<i>Chenopodium album</i>
Common Ragweed	<i>Ambrosia artemisiifolia</i>
Dayflower	<i>Commelina spp.</i>
Devilsclaw	<i>Proboscidea louisianica</i>
Eastern Black Nightshade	<i>Solanum ptycanthum</i>
Field Bindweed	<i>Convolvulus arvensis</i>
Giant Ragweed	<i>Ambrosia trifida</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Morningglory, Annual	<i>Ipomea spp.</i>
Pennsylvania Smartweed	<i>Polygonum pennsylvanicum</i>
Prickly Sida or Teaweed	<i>Sida spinosa</i>
Redroot Pigweed	<i>Amaranthus retroflexus</i>
Smallflower Morningglory	<i>Jacquemontia tamnifolia</i>
Smooth Pigweed	<i>Amaranthus hybridis</i>
Spurred Anoda	<i>Anoda cristata</i>
Tall Waterhemp	<i>Amaranthus tuberculatus</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Wild Buckwheat	<i>Polygonum convolvulus</i>
Wild Mustard	<i>Sinapis arvensis</i>
Wild Sunflower	<i>Helianthus annuus</i>
Yellow Nutsedge	<i>Cyperus esculentus</i>

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Not intended for use in California.

BASF

Laddok® 5L

herbicide

Postemergence Flowable Herbicide

For selective postemergence broadleaf weed control in field corn, seed corn, silage corn, sweet corn and popcorn; and in sorghum.

RESTRICTED USE PESTICIDE (Ground and Surface Water Concerns)

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.

Active Ingredients:

- Sodium salt of bentazon* [3-(isopropyl)-1H-2,1,3-benzothiadiazin-4(3H)-one,2,2-dioxide] 27.6%
- Atrazine* (2-chloro-4-ethylamino-6-isopropylamino-s-triazine) 25.0%

Inert Ingredients: 47.4%
TOTAL **100.0%**

*Equivalent to 2.5 pounds per gallon each of bentazon and atrazine

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUL 19 1994

Under the Federal Insecticide, Fungicide, and Rodenticide Act, this pesticide has been registered under EPA Reg. No. 7969-100.

EPA Reg. No. 7969-100

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.)

Corrosive. Causes eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Harmful if swallowed.

Statement of Practical Treatment

If in eyes: Immediately flush eyes with plenty of water. Get medical attention. If on skin: Immediately flush skin with plenty of water. Get medical attention if irritation persists. May cause allergic skin response.

See inside booklet for complete Precautionary Statements, Directions for Use, and Conditions of Sale and Warranty.

Agricultural Use Requirements

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

Shake well before using.

Net Contents 2 1/2 gallons

BASF Corporation
PO Box 13528, Research Triangle Park, NC 27709-3528

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Specimen Label