

New Proposed Label PM 25 352-346 highlighted 10/4



# Hyvar® X-L

## herbicide

### Water Soluble Liquid

Active Ingredient	By Weight
*Lithium salt of bromacil (5-bromo-3-sec-butyl-6-methyluracil)	21.9%
Inert Ingredients	78.1%
TOTAL	100%

\* Equivalent to 21.4% Bromacil. 1 Gallon  
Contains 2 Pounds Bromacil

EPA Reg. No. 352-346

**KEEP OUT OF REACH OF CHILDREN**

## WARNING

### STATEMENT OF PRACTICAL TREATMENT

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

For medical emergencies involving this product, call toll free 1-800-441-3637.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING! HARMFUL OR FATAL IF SWALLOWED. CAUSES EYE IRRITATION. MAY IRRITATE NOSE, THROAT, AND SKIN.

Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling.

#### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes.

#### PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. Keep container closed when not in use.

REC'D EPA/OPP/DPD1

**ACCEPTED**

SEP 26 1996

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, the pesticide registered under EPA Reg. No. 352-346

AUG 12 1996

REC'D EPA/OPP/DPD1

### GENERAL INFORMATION

Du Pont "Hyvar" X-L Herbicide is an effective general herbicide for use on non-cropland areas for control of brush and many annual and perennial weeds, and is particularly useful for control of perennial grasses. It is a water soluble liquid to be mixed in water and applied as a spray; "Hyvar" X-L may also be applied undiluted for basal (soil) treatment of brush. Effects are slow to appear and may not become apparent until the chemical has been carried into the root zone of the weeds by moisture. The degree of control and duration of effect will vary with the amount of chemical applied, soil type, rainfall, and other conditions.

"Hyvar" X-L, after mixing in water, is non-volatile, non-flammable, and non-corrosive to metals except aluminum. Do not use with aluminum spray nozzles.

### RESISTANCE MANAGEMENT

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When herbicides with the same mode of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant weed biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. These resistant weed biotypes may not be adequately controlled. Cultural practices such as tillage, preventing weed escapes from going to seed, and using herbicides with different modes of action within and between crop seasons can aid in delaying the proliferation and possible dominance of herbicide resistant weed biotypes.

### INTEGRATED PEST MANAGEMENT

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DuPont recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

### DIRECTIONS FOR USE

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

"Hyvar" X-L Herbicide should be used only in accordance with recommendations on this label, or in separate published Du Pont recommendations available through local dealers. Do not use on any crop in Kern County, California.

Apply "Hyvar" X-L before or during the period of active growth of plants to be controlled when rainfall can be expected for soil activation. If dense growth is present, results will be improved if vegetation is removed before treatment. Do not apply when ground is frozen.

Before spraying, calibrate equipment to determine quantity of water necessary to uniformly cover measured area to be treated. Measure the proper amount of "Hyvar" X-L and mix into the necessary volume of water. After "Hyvar" X-L has been thoroughly mixed in the spray tank, agitation of the spray solution is not required.

Use a fixed-boom power sprayer properly calibrated to a constant speed and rate of delivery. For application with a hand-gun sprayer, use at least 200 gals. spray per acre. For treating small areas a tank type hand sprayer or sprinkling can may be used. For basal (soil) treatment of brush, "Hyvar" X-L may be applied undiluted with an exact delivery hand gun applicator.

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

### WEED CONTROL

To control most weeds for an extended period of time on non-cropland areas such as RAILROAD, HIGHWAY and PIPE-LINE RIGHT OF WAYS, PETROLEUM TANK FARMS, LUMBERYARDS, STORAGE AREAS, and INDUSTRIAL PLANT SITES:

Apply 1 1/2 to 3 gals. "Hyvar" X-L per acre to control ANNUAL WEEDS and GRASSES such as foxtail, ryegrass, wild oats, crabgrass, cheatgrass, brome grass, ragweed, lambsquarters, puncturevine, orchardgrass and turkey mullein. When applied just prior to or after emergence of annuals, rates as low as 3/4 gal. per acre control many annual weeds and grasses in low rainfall areas and give short term control in higher rainfall areas.

Apply 3 to 6 gals. "Hyvar" X-L per acre to control PERENNIAL WEEDS and GRASSES such as smooth brome, bahiagrass, bluegrass, reedtop, purpletop, quackgrass, broomsedge, aster, dandelion, dog fennel, goldenrod, plantain and wild carrot. In areas with low or seasonal rainfall, rates as low as 2 1/4 gals. per acre control many perennial weeds and grasses.

Apply 6 to 12 gals. "Hyvar" X-L per acre to control JOHNSONGRASS; use at the same rate for OTHER HARD-TO-KILL PERENNIAL WEEDS and GRASSES such as bermudagrass, dallisgrass, nutsedge, vaseygrass, saltgrass, bouncingbet, dogbane, bracken fern and horsetail. Where limited rainfall (usually less than 4 inches) occurs during the active growth period, such as some areas of the West, "Hyvar" X-L will not provide satisfactory control of hard-to-kill, deep-rooted perennial weeds such as johnsongrass.

Use the higher levels of the dosage ranges on adsorptive soils (usually those high in organic matter or carbon).

Retreatment--Apply 3/4 to 3 gals. "Hyvar" X-L per acre when annual weeds and grasses reappear on sites where weed growth has been controlled.

For Small Areas--Three fl. oz. of "Hyvar" X-L per 250 sq. ft. is approximately 4 gals. per acre.

### BRUSH CONTROL

To control undesirable woody plants on non-cropland areas such as RAILROAD RIGHT OF WAYS, STORAGE AREAS, INDUSTRIAL PLANT SITES and DRAINAGE DITCHES:

Apply as a broadcast or basal (soil) treatment; for use on drainage ditches, apply as a basal (soil) treatment only.

Note: For effective brush control and prevention of damage to desirable vegetation: do not apply to brush standing in water; do not use water from treated ditches for irrigation; do not use in irrigation ditches nor on right of ways or other sites where marketable timber or other desirable trees or shrubs are immediately adjacent to the treated areas.

**Broadcast Treatment**--Apply 2 1/4 to 5 gals. per acre to control oak, willow, sweet gum, and pine; apply 6 to 12 gals. per acre to control brush such as American elm, winged elm, hackberry, sumac, and cottonwood. Use the higher levels of the dosage ranges on adsorptive soils (those high in organic matter or carbon).

**Basal (Soil) Treatment**--Controls woody plants such as cottonwood, hackberry, maple, oak, poplar, red bud, sweet gum, wild cherry, willow, winged elm, American elm and sumac.

**Diluted**--Mix 1 gal. "Hyvar" X-L in 5 gals. of water and apply at the rate of 1 to 2 fl. oz. per stem 2" to 4" in basal diameter; wet base of stem to run-off.

**Undiluted**--Apply "Hyvar" X-L undiluted with an exact delivery hand gun applicator; this equipment delivers a thin stream of a predetermined volume when triggered. Apply at the rate of 5 to 10 milliliters per stem 2" to 4" in basal diameter; direct the treatment to a spot at the base of the brush (root collar area). When treating large stems and more than one delivery of solution is needed per stem, apply on the opposite side of the stem. Note: "Hyvar" X-L is a combustible product. Do not smoke while applying the undiluted product, and keep away from heat and open flame.

## SPRAY DRIFT MANAGEMENT ← ADDED

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

### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (greater than 150-200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions! See the Wind, Temperature and Humidity, and Temperature Inversions sections below.

### CONTROLLING DROPLET SIZE - GENERAL TECHNIQUES

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use a higher-capacity nozzle instead of increasing pressure.
- 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.

## CONTROLLING DROPLET SIZE - AIRCRAFT

- Number of Nozzles - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- Nozzle Type - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Boom Length - The boom length should not exceed 3/4 of the wing or rotor length. Longer booms increase drift potential.
- Application Height - Application more than 10 ft above the canopy increases the potential for spray drift.

### BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) that provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop, and have minimal bounce.

### WIND

Drift potential increases at wind speeds less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given wind speed. Avoid application in gusty and windless conditions.

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 hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

### TEMPERATURE INVERSIONS

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

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift, and not interfering with uniform deposition of the product.

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### SPRAY TANK CLEANOUT

Thoroughly clean all traces of VELPAR DF from application equipment immediately after use. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Dispose of the equipment wash water by applying it to a use-site listed on this label.

### STORAGE AND DISPOSAL

**STORAGE:** Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Keep container closed when not in use.

**PRODUCT DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (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.

### LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read This Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product; crop injury, or; injury to non-target crops or plants.

DuPont does not agree to be an insurer of these risks. **WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.**

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

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DuPont or its Authorized Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Authorized Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

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