



AGRICULTURAL BULLETIN

DU PONT

HYVAR® X-L WEED KILLER
WEED CONTROL UNDER
SURFACING MATERIALS

SUPPLEMENTAL LABELING
EPA REG. NO. 352-346

HYVAR® X-L WEED KILLER
FOR WEED CONTROL UNDER ASPHALT, CONCRETE,
AND POND LINERS

DIRECTIONS FOR USE

ACCEPTED

AUG 18 1983

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

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

Du Pont Hyvar® X-L Weed Killer is recommended for weed control under asphalt, concrete, and pond liners to extend the useful life of the surfacing material by preventing weeds from emerging through it.

HOW TO USE

Remove vegetation and debris from the subgrade. Uniformly apply "Hyvar" X-L to the area to be surfaced, including the shoulder areas, at the following rates:

- 2.5 to 4 gallons per acre for control of annuals such as cheat, crabgrass, downy brome, foxtail, lambsquarters, puncturevine, ragweed, ryegrass, turkey mullein, and wild oats.
- 4 to 6 gallons per acre for control of perennials such as bahiagrass, broomsedge, dandelion, dogfennel, goldenrod, plantain, purpletop, quackgrass, redtop, smooth brome, and wild carrot.
- 10 to 12 gallons per acre for control of bermudagrass, bouncingbet, bracken fern, dallisgrass, dogbane, horsetail, johnsongrass, nutsedge, saltgrass, and vaseygrass.

For Herbicide Activation:

- On moist subsoils, apply "Hyvar" X-L after final grading and immediately before laying asphalt or liner surface. Apply uniformly using at least 100 gallons of water per acre.
- If moisture is not present, incorporation of "Hyvar" X-L is needed for activation. "Hyvar" X-L can be incorporated into the soil to a depth of 4-6 inches using a rototiller or disc. Rainfall or irrigation of 2 inches will also provide uniform incorporation. Do not allow treated soil to wash or move into untreated area.

11/3/81

BEST AVAILABLE COPY

NOTES:

"Hyvar" X-L is intended for use under asphalt, pond liners, and other pavement only in industrial sites or where the pavement has a suitable barrier along the perimeter that prevents encroachment of roots of desirable plants.

The product is not recommended for use under pavement in residential properties such as driveways or parking lots, nor is it recommended for use in recreational areas such as under jogging or bike paths, tennis courts, or golf cart paths, or where landscape plantings could be anticipated.

Injury or death of desirable plants may result if this product is applied where roots are present or where they may extend into treated area. Roots of trees and shrubs may extend a considerable distance beyond the branch extremities or so-called "dripline".

Where hard-to-control perennials such as peppervine, trumpetcreeper, field bindweed and Smilax spp. (greenbrier) are in the treated area, another suitable herbicide should be applied.

Do not use in California.

IMPORTANT

BEFORE USING "HYVAR" X-L, READ AND CAREFULLY OBSERVE THE CAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABEL.

This bulletin contains new or supplemental instructions for use of this product which may not appear on the package label. Follow the instructions carefully.

This labeling must be in possession of the user at the time of pesticide application.

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HOW TO USE

Remove vegetation and debris from the subgrade. Uniformly apply "Hyvar" X-L to the area to be surfaced, including the shoulder areas, at the following rates:

- 6 - 10 pounds per acre for control of annuals such as cheat, crabgrass, downy brome, foxtail, lambsquarters, puncturevine, ragweed, ryegrass, turkey mullein, and wild oats.
- 10 - 15 pounds per acre for control of perennials such as bahiagrass, broomsedge, dandelion, dogfennel, goldenrod, plantain, purpletop, quackgrass, redtop, smooth brome, and wild carrot.
- 25 - 30 pounds per acre for control of bermudagrass, bouncingbet, bracken fern, dallisgrass, dogbane, horsetail, johnsongrass, nutsedge, saltgrass, and vaseygrass.

For Herbicide Activation:

- On moist subsoils, apply "Hyvar" X-L after final grading and immediately before laying asphalt or liner surface. Apply uniformly using at least 100 gallons of water per acre.
- If moisture is not present, incorporation of "Hyvar" X-L is needed for activation. "Hyvar" X-L can be incorporated into the soil to a depth of 4-6 inches using a rototiller or disc. Rainfall or irrigation of 2 inches will also provide uniform incorporation. Do not allow treated soil to wash or move into untreated area.

ACCEPTED

AUG 18 1983

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NOTES:

"Hyvar" X-L is intended for use under asphalt and other pavement only in industrial sites or where the pavement has a suitable barrier along the perimeter that prevents encroachment of roots of desirable plants.

The product is not recommended for use under pavement in residential properties such as driveways or parking lots, nor is it recommended for use in recreational areas such as under jogging or bike paths, tennis courts, or golf cart paths, or in where landscape plantings could be anticipated.

Injury or death of desirable plants may result if this product is applied where roots are present or where they may extend. Roots of trees and shrubs may extend a considerable distance beyond the branch extremities or so-called "dripline".

Where hard-to-control perennials such as peppervine, trumpetcreeper, field bindweed and Smilax spp. (greenbrier) are in the treated area, another recommended herbicide such as picloram should also be applied.

Do not use in California.

IMPORTANT

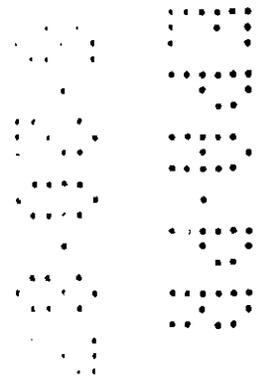
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WEED KILLER

WATER SOLUBLE LIQUID • 1 Gallon Contains 2 Pounds Bromacil

ACTIVE INGREDIENT:

• Lithium salt of bromacil (5-bromo-3-sec-butyl 6-methyluracil) 21.9%

INERT INGREDIENTS 78.1%

U.S. Pats. 3,352,862 & 7,192,336

EPA Est. # 905 AR 1

EPA Reg. No. 352-346

Keep out of reach of children.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS**

WARNING! HARMFUL OR FATAL IF SWALLOWED.

COMBUSTIBLE. CAUSES EYE IRRITATION; MAY IRRITATE NOSE, THROAT, AND SKIN.

Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing spray mist. Keep away from heat or open flame. Wash thoroughly after handling.

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.

ENVIRONMENTAL HAZARDS

Do not contaminate water by cleaning of equipment or disposal of wastes.

1 GALLON

Made in U.S.A.
Printed in U.S.A.

B 21750 0783

E. I. DU PONT DE NEMOURS & CO. (INC.) BIOCHEMICALS DEPARTMENT WILMINGTON, DELAWARE

NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. DU PONT MAKES NO WARRANTIES, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

GENERAL INFORMATION: Du Pont "Hyvar" X-L Weed Killer is an effective general herbicide for use on non-cropland areas for control of brush and annual and perennial weeds, and is particularly useful for control of perennials and 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 weeds. 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 effect and duration of effect will vary with the amount of chemical applied, soil conditions, 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.

DIRECTIONS FOR USE

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

"Hyvar" X-L Weed Killer 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.

CONTINUED ON BACK PAGE



Du Pont will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by Du Pont. User assumes all risks associated with such nonrecommended use.

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.

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 1½ 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 ½ 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, redtop, purpletop, quackgrass, broomsedge, aster, dandelion, dog fennel, goldenrod, plantain and wild carrot. In areas with low or seasonal rainfall, rates as low as 2 ½ 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, dog bane, 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 ¼ to 3 gals. "Hyvar" X-L per acre when annual weeds and grasses reappear on sites where weed growth has been controlled.

CONTINUED ON SIDE PANEL ▶

For Small Areas—Three fl. oz. of "Hyvar" X-L per 250 sq. ft. is approximately ½ 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 2½ 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 1½ 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 3" 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, do not 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.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

STORAGE AND DISPOSAL

STORAGE: Store product in original container only. **Stay away from fire, fumes, acids, fertilizer, food or feed.** Keep container closed when not in use.

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. 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.