Column 1 Amount Lawn Weed Killer to use: (Fl. Oz.)	Column 2 Fill Bottle to: (Gallons)	Column 3 Area to Treat: (Sq. Ft.)
5	5	1,250
10	10	2,500
15	15	3,750
20	20 (Full)	5,000

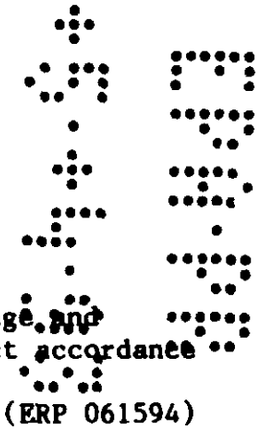
PRESSURE SPRAYER INSTRUCTIONS:
Measure indicated amount of Lawn Weed Killer into tank and dilute with water according to the following chart. Use a spray pattern which gives small droplets without any fine mist and cover the area indicated.

Amount Lawn Weed Killer to Use: (Fl. Oz.)	Amount of Water in Sprayer (Gallons)	Area to be Sprayed: (Sq. Ft.)
1	1	250
2	2	500
3	3	750
4	4	1,000

DISPOSABLE SPRAYER AND BOTTLE INSTRUCTIONS
Determine area to be sprayed. Apply at a rate of 32 oz. (1 quart) per 8,000 sq. ft. for Cool Season grasses or 16,000 sq. ft. for Warm Season grasses. Connect spray nozzle to hose. Remove bottle cap and screw bottle into nozzle. While holding sprayer at waist level, point in direction away from face and body. Turn on the water at the tap. Place finger over hole on right side of nozzle (or turn on/off lever to the "ON" position) and the Lawn Weed Killer will mix automatically at the proper ratio. Walk back and forth at steady pace.

Cool Season		Warm Season
2000	Sq. Ft.	4000
4000	Sq. Ft.	8000
6000	Sq. Ft.	12000
8000	Sq. Ft.	16000

(Marks on left for 1 qt. disposable bottle. Not to scale.)



NOTICE

Buyer assumes all risks of use, storage and handling of this product not in strict accordance with directions given herewith.

(ERP 061594)

PM23 228-238

Riverdale
CHEMICAL COMPANY

TELEPHONE (800) 345-3330
(708) 754-3330
FAX (708) 754-0314

OFFICE: 425 WEST 194th STREET, GLENWOOD, IL 60425-1584
PLANT: 220 EAST 17th STREET, CHICAGO HEIGHTS, IL 60411-3699

April 30, 1993

Ms. Joanne I. Miller
Product Manager (23)
Registration Division - H7505C
U.S. Environmental Protection Agency
Crystal Mall Bldg. #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Dear Ms. Miller:

Subject: 2,4-D Exposure Reduction Program Label Revisions Due 3/1/93
Label Corrections

Following the submission of approximately sixty (60) labels, we conducted an audit and found, for more reasons than we care to go in to, it became necessary to correct the majority of the labels previously submitted.

We have made two copies of each corrected label. We respectfully request that they be entered in to our registration file as replacements. We apologize for any inconvenience this may cause the Agency.

Sincerely yours,

RIVERDALE CHEMICAL COMPANY

By Russell F. Sawyer
Regulatory Affairs Manager

RFS:ls

Enc.

CPDA Chemical Producers and Distributors Association

PLCAA

RIVERDALE

1D AMINE

A SELECTIVE WEED KILLER

For Control of Many Broadleaf Weeds in both Non-Crop and Certain Crop Areas, Lawns, Ponds, Drainage Ditchbanks, Pastures and Rangelands. Also for Control of Trees by Injection.

ACTIVE INGREDIENT:	
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid*	11.84%
INERT INGREDIENTS:	88.16%
TOTAL	100.00%

*2,4-Dichlorophenoxyacetic Acid Equivalent: ..... 9.83%, 0.85 lbs./gal.
Isomer Specific by AOAC Method

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND STATEMENT OF PRACTICAL TREATMENT

NET CONTENTS GALS.

EPA REG. NO. 228-238 EPA EST. NO. 228-IL-1

MANUFACTURED BY

RIVERDALE CHEMICAL COMPANY

GLENWOOD, ILLINOIS 60425-1584

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING - AVISO

Do not get in eyes. Causes substantial but temporary eye injury. Harmful if swallowed. Avoid contact with skin or clothing. Avoid breathing vapors or spray mist. Remove saturated clothing as soon as possible and shower.

Revised A/O 1/14/93 Corr.

If this container is over one gallon and less than five gallons, then persons engaged in open pouring of this product must also wear coveralls or a chemical resistant apron. If this container is five gallons or more in capacity, then a mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

Please see additional Precautionary Statements in Directions For Use instructions.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Drink promptly a large quantity of milk, egg white, gelatin solution, or, if theses are not available, large quantities of water. Avoid alcohol.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.
IF ON SKIN: Wash skin with soap and water.
IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply to water except as specified on label. Do not contaminate water when disposing of equipment washwaters. Do not apply this product through any type of irrigation system. Do not contaminate water used for irrigation or domestic purposes. Use care to avoid spray contact or drift to 2,4-D susceptible plants such as cotton, tomatoes, flowers, grapes, fruit trees and ornamentals. Excessive amounts of this product in soil may temporarily inhibit seed germination and plant growth. Do not permit spray mist containing this product to drift onto them. Do not spray when the wind is blowing towards susceptible crops or ornamental plants. Use coarse sprays to minimize drift. Spray drift can be lessened by keeping the spray boom as low as possible, by spraying when wind velocity is low, and by stopping all spraying when wind exceeds 6 to 7 miles per hour. Do not use the same spray equipment for applying other materials to 2,4-D susceptible crops as injury may result. It is best to use a separate sprayer for application of insecticides and fungicides.

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

When using on Pastures and Rangeland Grasses there is a (1) 7 day pre-grazing interval for dairy cattle; (2) 30 day preharvest interval

for grass cut for hay; and (3) 3 day pre-slaughter interval for meat animals.

Do not forage or graze treated fields within 2 weeks after treatment with 2,4-D.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. READ ENTIRE LABEL DIRECTIONS BEFORE USING.

RE-ENTRY STATEMENT

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.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Warnings should state: "Do not enter treated areas unless wearing chemical resistant full body clothing including NIOSH approved respirator, goggles and gloves until sprays have dried". When oral warnings are give, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information:

WARNING: Area treated with 2,4-D Amine Salt on date of application. Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, follow precautionary statements on label.

ADDITIONAL PRECAUTIONARY STATEMENTS FOR AGRICULTURAL CROP USES (Including Sod Farms and Forestry workers engaged in the commercial production of wood fiber or timber products including forestry site preparation) ALSO INDUSTRIAL/AQUATIC APPLICATIONS

When mixing, loading or applying this product or repairing or cleaning equipment used with this product, wear eye protection (face shield or safety glasses), chemical resistant gloves, long-sleeved shirt, long pants, socks and shoes. It is recommended that safety glasses include front, brow and temple protection. For aerial applications in an enclosed cockpit and applicators applying this product from a tractor that has been a completely enclosed cab, eye protection is not required. Wash hands, face and arms with soap and water as soon as possible after mixing, loading or applying this product. Wash hands, face and arms with soap and water before eating, smoking or drinking. Wash hands and arms before using toilet. After work, remove all clothing and shower using soap and water. Do not reuse clothing worn during the previous day's mixing and loading or application of this product without cleaning first. Clothing must be kept and washed separately from other household laundry. The rates of applications for pastures and rangelands are per

5y 10

acre per application site. Do not enter or allow worker entry into treated areas during the restricted-entry interval of 24 hours. There isn't any reentry restriction for Industrial/Aquatic applications, nor non-crop uses of pastures, rangelands and forests.

RIVERDALE 1D AMINE will kill or control the following weeds in addition to many other noxious plants susceptible to 2,4-D.

Alders
American lotus
Arrowhead
Artichoke
Aster
Austrian fieldcress
Beggarsticks
Biden
Bindweed
Bitterweeds
Bitter winter cress
Blessed thistle
Blue lettuce
Box elder
Broomweed
Buckhorn
Bull thistle
Bulrush
Burdock
Bur ragweed
Buttercup
Canada thistle
Carpetweed
Catnip
Chickweed
Chicory
Cockle
Cocklebur
Coffee bean
Coffeeweed
Common sowthistle
Creeping jenny
Croton
Curly indigo
Dandelion
Docks
Dogbane
Duckweed
Elderberry
Fleabane (daisy)
Flixweed
Florida pusley
Frenchweed
Galinsoga
Goatsbeard
Goldenrod
Ground ivy
Gumweed
Healall
Hemp
Henbit
Hoary cress
Honeysuckle
Horsetail
Indigo
Indiana mallow
Ironweed
Jewelweed
Jimsonweed
Kochia
Knotweed
Lambsquarters
Locoweed
Lupines
Mallow
Marshelder
Mexican weed
Morningglory
Musk thistle
Mustards
Nettles
Nutgrass
Orange hawkweed
Parrotfeather
Parsnip
Pennycress
Pennywort
Peppergrass
Pepperweed
Pigweed
Plantains
Poison hemlock
Poison ivy
Pokeweed
Poorjoe
Povertyweed
Prickly lettuce
Primrose
Puncturevine
Purslane
Ragweeds
Rush
Russian thistle
Sagebrush
St. Johnswort
Shepherdspurse
Sicklepod
Smartweed
Sneezeweed
Southern wild rose
Sowthistle
Spanishneedles
Spatterdock
Stinging nettles
Stinkweed
Sumac
Sunflower
Sweet clover
Tarweed
Thistles
Toadflax
Tumbleweed
Velvetleaf
Vervain
Vetch
Virginia creeper
Water hyacinth
Water lily
Water plantain
Water primrose
Watershield
Wild carrot
Wild garlic
Wild lettuce
Wild onion
Wild radish
Wild rape
Wild strawberry
Wild sweet potato
Willow
Witchweed
Wormseed
Yellow rocket

Generally the lower dosages given will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. Apply 1D Amine during warm weather when weeds are young and growing actively. Use enough spray volume for uniform coverage by ground or air application. If only bands or rows are treated, leaving middles unsprayed, the dosage per crop per acre is reduced proportionately. Do not apply when temperature exceeds 90°F.

TO PREPARE THE SPRAY: Mix 1D Amine only with water. Add about half the water to the mixing tank, then add the 1D amine with agitation, and finally the rest of the water with continuing agitation. Note: Adding oil, wetting agent, or other surfactant to the spray may increase effectiveness on weeds but also may reduce selectivity to crops resulting in crop damage.

CORN (Field and Sweet): Pre-emergence (For annual grasses and broadleaf weeds) - Apply to soil anytime after planting but before corn emerges. Do not use on light sandy soil, or where soil moisture is low. Use 1 to 2 gallons in 15-30 gallons of water per acre.
Emergence - Apply 2 quarts in 15-30 gallons of water per acre just as corn plants are breaking ground.
Post-emergence - (For broadleaf weeds) - Apply 1 to 2 quarts in 8-15 gallons of water per acre, when most weeds have germinated. Spray after corn emerges and until 8" tall. Use low rates on inbreds. Corn is susceptible to injury shortly after emergence and after unfolding of leaves. Do not spray during this period nor after first tassels appear. When corn is over 8" tall, use drop nozzle to keep spray off corn foliage. Spray must strike tops of weeds but should not drench corn plants. Do not apply from tasseling to dough stage. Injury to corn is most likely to occur if 1D Amine is applied when corn is growing rapidly under high temperatures and high soil moisture conditions. In such conditions. use the low rate. For resistant weeds, use up to 1 gallon per acre though corn injury may result. Do not use higher rates unless possible crop injury will be acceptable. After application, delay cultivation for 8-10 days to allow the corn to overcome any temporary brittleness.
Pre-harvest: After the hard dough or denting stage, apply by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf, and vines that interfere with harvesting. Use 1/2 to 1 gallon in 30 to 50 gallons of water per acre.

WITH LIQUID NITROGEN SOLUTIONS: For late season control of your smartweed, cocklebur, annual morningglory and other annual broadleaf weeds less than 1 inch high. Field should be as clean as possible and corn 20 to 30 inches tall. Apply 1/2 gallon with 80 to 120 lbs. Nitrogen per acre; the spray must be prepared by first adding the required amount of liquid nitrogen solution to spray tank. Next dilute 1/2 gallon Riverdale 1D Amine with 2 quarts clean water for each acre to be treated with one tankful. Start the tank agitator and (slowly) add the diluted 2,4-D solution. Spray immediately, maintaining continuous agitation until spray tank is empty. Direct the spray to lower 3" to 4" of corn stalk. Use spray equipment designated to handle corrosive liquid nitrogen solutions. After spraying, remove any remaining solution and rinse rig thoroughly with water. Mix only one tank at a time. Do not spray during or immediately following cold weather.

SORGHUM: Post-emergence - Apply 2-2/3 to 4 pints in 6-10 gallons of water per acre when sorghum is 6" - 8" tall. Use 4 pints when sorghum is 8" - 15" tall. Treat only

7d.10

after the sorghum is 6" high and preferably before it is 15" high. Do not treat during the boot, tasseling, or early dough stages. Reduce spray drift by keeping the boom and spray nozzle as low as possible. If crop is taller than 8", use drop nozzle to keep the spray off the leaves. Temporary spray injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply 1D Amine under these conditions, use no more than 2-2/3 pints per acre.
NOTE: Corn & Sorghum Hybrids vary in tolerance to 2,4-D. Some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service weed specialist for this information.

BARLEY, WHEAT, OATS AND RYE: Spring Post-emergence - In spring grown grains, spray after grain begins tillering and before the boot stage (usually 4"-8" tall) and weeds are small. Apply 1 to 2 quarts of 1D Amine in 5-10 gallons of water per acre. Oats are more sensitive to 2,4-D than other grains and should be sprayed in the spring when well established and tillered and before jointing after crop has reached the dough stage. In winter grains, use 2-4 quarts of 1D Amine to control large weeds that will interfere with harvest or to suppress perennial weeds, pre-harvest treatment can be applied when the grain is in the dough stage. Best results will be obtained when soil moisture is adequate for plant growth and weeds are growing well.
NOTE: Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment. Do not feed treated straw to livestock.

SUGARCANE: Pre-emergence - Use 2 gallons in 15-20 gallons of water per acre as a blanket spray through layby, to aid in control of Johnsongrass seedlings and susceptible broadleaf weeds.
Post-emergence - Use 3/4-1 gallon in 10-30 gallons of water. Apply when can is 1'-2' tall.

RICE: Use 3/4 to 1-1/4 gallon of 1D Amine in 5-10 gallons of water per acre to control curly indigo and other broadleaf weeds. Apply in the late tillering stage of rice development, at the time of first joint development (first to second green ring), usually 6 to 9 weeks after emergence. Do not apply after panicle initiation, after rice internodes exceed 1/2" at early seeding, early panicle, boot, flowering or early heading growth stages.
NOTE: Some rice varieties under certain conditions can be injured by 2,4-D. Therefore before spraying, consult local Extension Service or University specialist for appropriate rates and timing of 2,4-D sprays.

ON FALLOW LAND: Use 1 to 2 gallons of 1D Amine per acre on annual broadleaf weeds and up to 3 quarts per acre on established perennial species, such as Canada thistle and field bindweed. Apply to weeds actively growing. Do not plant any crop for 3 months after treatment or until chemical has disappeared from soil.

GRASSES: In established pastures and rangelands, use 1-2 gallons Riverdale 1D Amine in 15 to 30 gallons of water per acre. Use the light rate on more easily injured grasses. For small areas, use 3 to 4 fluid ounces (6 to 8 Tablespoons) per 1,000 square feet; mix 1 to 3 gallons of water and apply uniformly over the area. Apply preferably when weeds are small and growing actively before bud stage. Fall or spring is the best time to treat. Repeated treatments may be needed for less susceptible weeds. Treatment will kill or injure alfalfa, sweet clover and other legumes. White clover (including Ladino) may be injured by light application but recovers; repeated treatments will kill it. In some areas dichondra, bent, carpet, buffalo, and St.

Augustine grasses may be injured. Usually colonial bents are more tolerant than creeping types; velvets are most easily injure. Where bentgrass predominates, make 1 applications of 1/2 gallon per acre at 3 week intervals. Do not graze dairy animals within 7 days after application.

GRASS SEED CROPS: Use 1/2 to 2 gallons in 15-30 gallons of water per acre in Spring or Fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to the milk stage. Spray seeding grass only after the five leaf stage, using 3 to 4 pints per acre to control small seeding weeds. After the grass is well established higher rates of up to 2 gallons can be used to control hard-to-kill annual or perennial weeds. For best results, do not use on bentgrass unless grass injury can be tolerated. Do not graze dairy animals nor cut forage for hay within 7 days after application.

CONTROL OF SOUTHERN WILD ROSE: On roadsides and fencerows, use 4 gallons of 1D Amine plus 4 to 8 ounces of an agricultural surfactant per 100 gallons of water and spray thoroughly as soon as foliage is well developed. Two or more treatments may be required. On rangeland, apply a maximum of 2.4 gallons of 1D Amine per acre per application per site. Do not graze dairy animals on treated areas within 7 days of application.

ADDITIONAL PRECAUTIONARY STATEMENTS FOR TURF CONTROL

When using this product, wear long-sleeved shirt, long pants, socks, shoes, rubber gloves and eye protection. It is recommended that safety glasses include front, brow and temple protection. In addition to the clothing and eye protection commercial mixers/loaders/applicators must wear chemical resistant in place of rubber gloves except when the product is to be applied to a golf course. After using this product, rinse gloves before removing, remove clothing and launder separately before reuse, and promptly and thoroughly wash hands and exposed skin with soap and water. The maximum number of broadcast applications per treatment site is 2 per year. Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried.

BROADLEAF WEED CONTROL IN NON-CROPLAND GRASS AREAS SUCH AS LAWN, GOLF COURSES, CEMETERIES AND PARKS, AIRFIELDS, RIGHTS-OF-WAY, FENCEROWS, ROADSIDES, VACANT LOTS, DRAINAGE DITCHBANKS AND SIMILAR PLACES: Use 2 to 4 gallons of this product in 15 to 50 gallons of water per acre. Treat when weeds are young and growing well. Do not use on dichondra or other herbaceous ground covers. Do not use on creeping grasses such as bent except for spot treatment nor on freshly seeded turf until grass is well established. Reseeding of lawns should be delayed following treatment. With spring application, reseed in the fall. With fall application, reseed in spring. Legumes are usually damaged or killed. Thoroughly wet weeds when applying this mixture. Bindweed, Whitetop, Perennial sow thistle, Blue lettuce, Bur ragweed, Canada thistle, and other noxious perennials somewhat resistant to 2,4-D will require repeated treatments to kill.

To control small areas of woody plants, such Willows, Honeysuckle, Virginia creeper, Alders and other susceptible to 2,4-D use 2 to 4 gallons in 100 gallons water; spray to thoroughly wet plants when in full leaf. Re-treat as necessary for control of regrowth and seedlings. In general, it is better to cut tall woody growth and spray suckers when 2 to 4 feet high.

SPOT TREATMENT IN NON-CROP AREAS: To control broadleaf weeds in small areas with a hand sprayer, use 1 pint of 1D Amine in 3 gallons of water and spray to thoroughly wet all foliage.

TREE INJECTIONS (Pine Release): To control hardwoods, such as Oaks, Hickory, Maple, Pecan, Elm, Sumac, Sweetgum and Hawthorn in forest and other non-crop area, apply undiluted 1D Amine in a concentrate tree injector calibrated to apply 3 ml. per injection. Space injections 2" apart, edge to edge, completely around the tree and close to the base. The injector bit must penetrate the inner bark. On hard-to-kill species such as Hickory, Dogwood, Red maple, Blue beech and Ash make injections 1" to 1-1/2" apart, edge to edge. Treatment may be made at any time of the year. For best results, injections should be made during growing season, May 15 - October 15.

ADDITIONAL PRECAUTIONARY STATEMENTS FOR BRUSH CONTROL

The maximum application rate for forestry site preparation is 1 gallon 6 ounces per acre per application per site. There isn't any restrictions on the annual maximum number of applications for brush control. No re-entry restriction for non-agricultural uses.

WEEDS AND BRUSH ON IRRIGATION CANAL DITCHBANKS - SEVENTEEN WESTERN STATES: Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington and Wyoming.
For control of annual and perennial broadleaf weeds, apply 1 to 2 gallons of 1D Amine per acre in approximately 20 to 100 gallons of water per acre. Treat when weeds are young and actively growing before the bud of early bloom stage. For harder-to-control weeds, a repeat spray after 3 to 4 weeks using the same rates may be needed for maximum results. Apply no more than two treatments per season.
For woody brush and patches of perennial broadleaf weeds, mix 4 gallons of 1D Amine in 150 gallons of water. Wet foliage thoroughly using about 1 gallon of solution per square rod.

SPRAYING INSTRUCTIONS: Apply with low pressure (10 to 40 psi) power spray equipment mounted on truck, tractor or boat. Apply while traveling upstream to avoid accidental concentration of chemical into water. Spray when the air is fairly calm; 5 mph or less. Do not use on small canals (less than 10 cfs) where water will be used for drinking purposes. Boom spraying onto water surfaces must be held to a minimum and no cross-stream spraying to opposite banks should be permitted. When spraying shoreline weeds, allow no more than two-foot over-spray onto water with an average of less than one-foot over-spray to prevent introduction of greater than negligible amounts of chemical into the water.
Do not allow dairy animals to graze on treated area for at least 7 days after spraying. Water within treated banks should not be fished.

FOR AQUATIC WEEDS IN STILL LAKES, PONDS, DRAINAGE DITCHES AND MARSHES:
Aerial Application - Use 9-1/2 quarts of 1D Amine in 5 to 15 gallons of water to cover one surface acre.
Boat Application - Use 9-1/2 quarts of 1D Amine in 50 to 100 gallons of water per acre. Uniform coverage is essential. Avoid submerging plants after treatment. Application should be made when leaves are fully developed above water line and plants are actively growing. Consult your State Game and Fish Department or Water Control Agency prior to