

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION*(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)***NAME OF PESTICIDE PRODUCT**Helena Copper-Z 4/4
Algicide/Herbicide**NAME AND ADDRESS OF REGISTRANT (Include ZIP code)**

Helena Chemical Company
 Suite 3200-Clark Tower
 5100 Poplar Ave
 Memphis, Tennessee-0050

*Waiting data before sending to the
with missing information*

in the
the
 PM 23
 5905-486
 pg 1 of 9

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an endorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Add the phrase, "EPA Registration No. 5905-486" to your label before you release the product for shipment.
3. Submit five (5) copies of your final printed labeling before you release the product for shipment.

Please complete the label changes stated in our letter dated November 11, 1989 before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Joanne I. Miller
 Acting Product Manager (23)
 Fungicide-Herbicide Branch
 Registration Division (H7505C)

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

Joanne I. Miller

DATE

2/21/90

**COPPER-Z 4/4
Algicide/Herbicide**

ACTIVE INGREDIENTS:	BY WT.
Copper Sulfate Anhydrous	10.00%
INERT INGREDIENTS:	<u>90.00%</u>
TOTAL	100.00%

Copper (Cu) as metallic 4%
One gallon contains 0.42 lbs. of elemental copper and .42 lbs. of elemental zinc.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que le etiqueta haya sido explicado ampliamente.

SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelid open and flush with a steady, gentle stream of water for 15 minutes.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

IF INHALED: Remove victim to fresh air. Get medical attention.

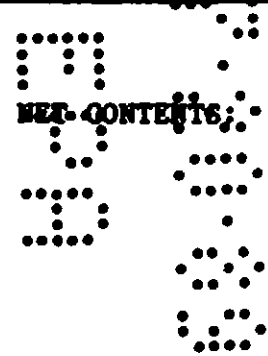
IF SWALLOWED: Drink immediately a large quantity of either milk, egg whites or gelatin solution. If these are not available drink a large quantity of water. Avoid alcohol. Get medical attention. (NOTE TO PHYSICIAN: Probably mucosal damage may contraindicate use of gastric lavage.)

EPA REG. NO.
EPA EST. NO.

ACCEPTED

Feb. 23, 1990

Under the Federal Insecticide,
Fungicide and Rodenticide Act,
and the Pesticide Control Act,
EPA Reg. No. **3905-486**



**MANUFACTURED BY
HELENA CHEMICAL COMPANY
MEMPHIS, TN. 38137**

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

DANGER:

Corrosive. Causes eye damage. Harmful or fatal if swallowed. Do not get in eyes or on clothing. Wear goggles or face shield when handling this product. Avoid contact with skin. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelid open and flush with a steady, gentle stream of water for 15 minutes.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

IF INHALED: Remove victim to fresh air. Get medical attention.

IF SWALLOWED: Drink immediately a large quantity of either milk, egg whites or gelatin solution. If these are not available drink a large quantity of water. Avoid alcohol. Get medical attention. (NOTE TO PHYSICIAN: Probably mucosal damage may contraindicate use of gastric lavage.)

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water except as directed under the specific instructions section. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Direct application of copper sulfate to water may cause a significant reduction in populations of aquatic invertebrates, plants and fish. Do not treat more than one-half of lake or pond at one time in order to avoid depletion of oxygen levels from decaying vegetation. Allow 1 to 2 weeks between treatment for oxygen levels to recover. 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.

Trout and other species of fish may be killed at application rates recommended on this label, especially in soft or acid waters. However, fish toxicity generally decreases when the hardness of water increases. Do not contaminate water by cleaning of equipment or disposal of wastes. Consult your State Fish and Game Agency before applying this product to public waters. Permits may be required before treating such waters.

PHYSICAL AND CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

DIRECTIONS FOR USE

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

CHEMIGATION PROHIBITION

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

REENTRY STATEMENT

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 until spray has dried unless protective clothing is worn.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

STORAGE AND DISPOSAL

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. Store in a cool, dry place in the original container. Do not store in a manner where cross contamination with other pesticides, fertilizers, food or feed could occur.

CONTAINER DISPOSAL:

Metal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Helena Copper Z 4/4 can be used to control Algae in impounded waters, lakes, ponds and reservoirs, for algae and potamogeton pond weed control in potable water or irrigation conveyance systems and for fungicidal control of specific diseases on crops.

GENERAL DIRECTIONS

This liquid copper sulfate product is easy and ready to use to control algae in potable or irrigation water including reservoirs, ponds, lakes, irrigation or potable water conveyance systems.

Copper Z 4/4 effectively controls many species of both filamentous (mat forming green algae) and planktonic (single cell blue-green) algae. The rate of copper sulfate and control are affected by algae species, water hardness, water temperature, amount of algae present, as well as whether water is clear, turbid, flowing, or static. Preferably water should be clear and above 60° F, with treatment made in the late morning on a sunny day. Static water usually requires less copper sulfate than flowing water. The harder the water, the higher the required rate of copper sulfate. When mats of filamentous algae are floating, the surface of these mats should be sprayed. Algae will absorb the copper sulfate within hours after treatment, and death should be evident within 3 to 5 days. If there is some doubt about the concentration to apply, it is generally best to begin with a lower rate and increase the rate until the algae are killed. (A few algae species are resistant to copper sulfate treatment and may not be killed.) Repeat treatments may be needed to keep algae under control to the desired levels.

Treatment of algae can result in oxygen loss from the water caused by the decay of dead algae. This loss can cause fish suffocation. To minimize this hazard, treat 1/3 to 1/2 of the water area in a single operation and wait 10 to 14 days between treatments. Begin treatments along the shore and proceed outwards in bands to allow fish to move into untreated water. Trout and other species of fish may be killed at application rates recommended on this label, especially in soft and acid waters.

1. For Algae Control in Reservoirs, Lakes, Ponds, Impounded Waters:

When to Apply: Early treatment is essential for most satisfactory algae control at the lowest rate levels. Early growth is usually confined to shallower shore areas. Begin treatment when not over 5 to 10% of the water surface area is covered with algae growths which is usually nearest the shoreline. Delaying treatment until heavy algae growths are present usually requires a higher rate and may result in fish distress or death since rapid decomposition of heavy growths greatly reduce the oxygen content of the water. Several repeat treatments are usually necessary to control algae each season.

Rates to Control Algae: First, accurately determine the surface acres of water to be treated at one time and multiply this by the average depth in feet of this water area to determine the acre feet of water to be treated. [One acre foot = one surface acre (43,560 sq. ft.) x one foot depth.]

Each acre foot of water contains 326,000 gallons, or 2,720,000 pounds of water. Since recommended concentrations are normally given in parts per million (ppm), it will first be necessary to convert the value in parts per million to a decimal equivalent. For example, 2 ppm is the same as 0.000002 when used in this calculation. Therefore, to calculate the amount of Copper Sulfate Pentahydrate to treat 1 acre-foot of water with 2 ppm Copper Sulfate, the calculation would be as follows:

0.000002 x 2,720,000 = 5.44 lbs. Copper Sulfate Pentahydrate
 To obtain the correct amount of Helena Copper Z 4/4 divide
 5.44 lbs. by 1.677 lbs. which equals 3.2 gallons of Copper Z
 4/4. The rates of Copper Z 4/4 per acre foot of water to
 control specific algae species are given later in the label.

Secondly, if the problem algae genera is know, use the table below and its equivalence to determine the approximate rate of this product needed to control that genera. If the genera of either filamentous or planktonic algae is not know, apply 6.2 - 9.3 quarts of this product per acre foot of water, using the lower rate in soft water and the higher rate to hard water. For control of bottom-attached algae Chara and Nitetella use 9.3 - 12.8 quarts per acre foot of water to be treated. If control is not achieved or in very adverse waters, a higher rate may be needed, but consider the fish species.

COPPER SULFATE REQUIRED FOR TREATMENT OF DIFFERENT GENERA OF ALGAE

The genera of algae listed below are commonly found in waters of the United States. Use the lower recommended rate in soft waters (less than 50 ppm methyl orange alkalinity) and the higher concentration in hard water (above 50 ppm alkalinity). Always consult State Fish and Game Agency before applying this product in municipal water.

PPM EQUIVALENT OF COPPER Z 4/4 PER ACRE FOOT OF WATER

	1.6-3.3 qt.	3.3-6.2 qt.	6.2-9.3 qt.	9.3-12.8 qt.
ORGANISM	1/2 to 1/2 ppm*	1/2 to 1 ppm*	1 to 1 1/2 ppm*	1 1/2 to 2 ppm*
Cyanophyceae (Blue-green)	Anabaena Anacytis Aphanizomenon Gloeotrichia Gomphosphaeria Polycyathus Rivularia	Cylindrocapsa Oscillatoria Plectonema	Nostoc Phormidium	Calothrix Symptoca
Chlorophyceae (Green)	Closterium Hydrodictyon Spirogyra Ulothrix	Botryococcus Cladophora Coelastrum Draparnaldia Enteromorpha Gloeocystis Microspora Tribonema Zygnema	Chlorella Crucigenia Desmidiium Golenkinia Oocystis Palmella Pithophora Staurastrum Tetraedron	Ankistrodesmus Chara Nitetella Scenedesmus
Diatomaceae (Diatoms)	Asterionella Fragilaria Melosira Navicula	Gomphonema Nitzschia Stephanodiscus Synedra Tabellaria	Achnanthes Cymbella Naidium	
Protozoa (Flagellates)	Dinobryon Synura Uroglena Volvox	Caratum Cryptomonas Euglena Glennodium Mallomonas	Chlamydomonas Hawmatococcus Peritritium	Eudorina Pandorina

How to Apply Copper Z 4/4: Dilute the recommended amount of this product in sufficient water to thoroughly and uniformly spray the water surface including any floating algae mats.

2. **Algae Control and the potamogeton Pond Weeds, Leafy and Sago, in irrigation and Potable Water Conveyance Systems:** Accurately determine the water flow rate in Cubic Feet per Second (C.F.S.) or gallons per minute (Gal/Min). One CFS equals 450 Gal/Min. The calculation of water flow in ditches, streams and irrigation device can be found by means of a weir or other measuring device. Treatment can be made by either the Continuous or Slug application method. Copper sulfate becomes less effective as the bicarbonate alkalinity increases and is significantly reduced when the bicarbonate alkalinity exceeds about 150 ppm as CaCO_3 regardless if applied by either of the following methods. For Potable Water Systems, the amount of Copper Sulfate Pentahydrate applied should not exceed 4 ppm, which is an equivalent copper concentration of 1 ppm in the treated water.

For Algae Control by the Continuous Application Method, begin treatment when water is first turned into the system and continue until water flow is stopped, applying 7.9 to 15.8 fl oz. (.32 - .65 fl oz/hr/CFS) per CFS of water during each 24 hours. For Leafy and Sago Pondweed Control continuously apply 6.9 to 9.6 pints per CFS (4.6 - 6.4 fl oz/hr/CFS) of water during each 24 hours. Should copper sulfate fail to control pondweeds satisfactorily, it may be necessary to treat the ditch with either a suitable approved herbicide or use mechanical means to remove the excess growth. In either case resume copper sulfate addition as soon as possible.

For Algae Control using the Slug Application Method, apply 1.4 - 9.6 pints per CFS of water per treatment. Repeat about every 2 weeks as needed. A slug is usually necessary every 5 to 30 miles depending on water hardness, alkalinity, and algae concentration.

3. **Algae Control in Rice Fields:** Apply 6.3 to 9.1 gallons Copper Z 4/4 liquid per acre to the water surface as a surface spray. Application should be made when the algae has formed on the soil surface but prior to rising to the water surface. Apply higher rate (9.1 gallons) in water of 6 inches or greater.
4. **Tadpole Shrimp Control in Rice Fields:** Apply 3.1 to 6.3 gallons of Copper Z 4/4 liquid per acre to the flooded field at any time the pest appears between planting time and until the seedlings are rooted and have emerged through the water surface. The lower rate should be used when the water depth and flow rate are minimal and higher rate should be used when the water depth and flow are at a maximum.

FOR FUNGICIDE USE

Use as directed below. Depending on the equipment used and the specific crop, the volume applied per acre will differ. For high volume sprays, use from 25 to 100 gallons per acre (GPA). For concentrate ground sprays, apply from 20 to 50 GPA. For aerial spraying, 3 to 15 GPA are commonly used.

SPECIFIC INSTRUCTIONS

BEANS; Bacterial Blight (Halo & Common). Use 31 to 72 fl. oz. per acre. Make first application when plants are 3 to 5 inches high before disease symptoms appear. Continue application on a 7-10 day schedule, depending on local conditions.

CANTALOUPE; HONEYDEWS, MUSKMELON, WATERMELON, Downy Mildew, Powder Mildew, *Alternaria* & Angular Leaf Spot, Scar. Apply at 31 to 72 fl. oz. per acre when plants begin to vine. Continue applications on a weekly basis. In areas where Angular Leaf Spot is a problem, applications should be made on a 5-7 day schedule.

CELERY; Early, Late & Bacterial Blight. Apply 31 to 72 fl. oz. per acre. Begin applications when plants are first established, then every 7 days, depending on disease conditions.

CUCUMBERS; Alternaria & Angular Leaf Spot, Powdery Mildew. Apply at 31 to 72 fl. oz. per acre when plants begin to vine. Continue applications on a weekly basis. In areas where Angular Leaf Spot is a problem, applications should be made on a 5-7 day schedule.

PEANUTS; Cercospora Leaf Spot. Begin spraying at 31 to 72 fl. oz. per acre at first sign of disease and every 10-14 days thereafter.

POTATOES; Early and Late Blight, Apply at 31 to 72 fl. oz. per acre. Begin applications when plants are 3-4 inches high and continue at 7-10 day intervals.

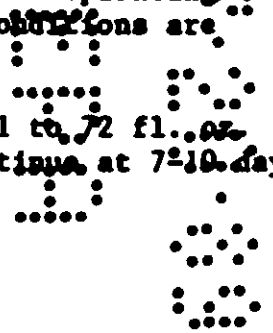
SOYBEANS; Bacterial Blight (Halo & Common). Use 45 to 58 fl. oz. per acre. Make first application when plants are 3-5 inches high before disease symptoms appear. Continue applications on a 7-10 day schedule, depending on local conditions.

SQUASH; (summer & winter), Alternaria & Angular Leaf Spot, Powdery Mildew. Use 31 to 72 fl. oz. per acre when plants begin to vine. Continue applications on a weekly basis. In areas where Angular Leaf Spot is a problem, applications should be made on a 5-7 day schedule.

SUGAR BEETS; Cercospora Leaf Spot. Use 31 to 72 fl. oz. per acre. Begin when plants are 3-4 inches high and continue on a 10-14 day interval or more frequently if disease conditions are severe.

TOMATO; Bacterial Spot, Early Blight. Use 31 to 72 fl. oz. per acre. In seed beds, begin application when seedlings emerge and repeat at 4-5 day intervals. In field, begin applications immediately after transplanting and continue on 7 day intervals or more frequently if disease conditions are severe.

PEPPERS; Bacterial Spot, Cercospora Leaf Spot. Apply at 31 to 72 fl. oz. per acre. Begin application before disease appears and continue at 7-10 day intervals.

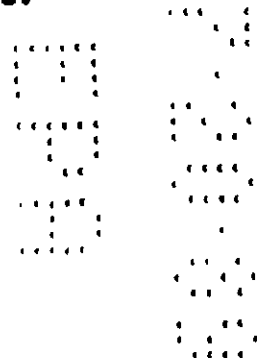


**CONDITIONS OF SALE - LIMITED WARRANTY
AND LIMITATIONS OF LIABILITY AND REMEDIES**

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. Helena warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of Helena. Helena makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against Helena for any cause of action relating to the handling or use of this product is a claim for damage and in no event shall damages or any other recovery of any kind against Helena exceed the price of the product which causes the alleged loss, damage, injury, or other claim. Helena shall not be liable and any and all claims against Helena are waived, for special, indirect, incidental, or consequential damages or expense, of any nature including, but not limited to, loss of profits or income, whether or not based on Helena negligence, breach of warranty, strict liability in tort or any other cause of action.

Helena and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.



NOT REVISITED

In Accordance with PR Notice 87
Based on Draft Labeling Dated

5/24/89

**"EXTRAZINE" II 4L HERBICIDE
EPA REG. NO. 352-500**

**SUPPLEMENTAL LABELING
"EXTRAZINE" II 4L HERBICIDE
FOR AERIAL APPLICATION USING CLOSED LOADING SYSTEMS
IN ALL STATES FOR ALL LABELED CROPS**

DIRECTIONS FOR USE

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

"Extrazine" II 4L is a RESTRICTED USE PESTICIDE 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.

Do not apply "Extrazine" II 4L through any type of irrigation system.

HOW TO USE

Du Pont "Extrazine" II 4L Herbicide, applied alone or in labeled tank mix
combinations, is recommended for aerial application when product is
measured, mixed and loaded using an approved closed mixing and loading
system designed to avoid mixer/loader exposure to pesticides. Current
federal labeling otherwise prohibits aerial application of all
"Extrazine" II formulations.

Closed mixing and loading systems may include: (1) systems designed for
direct, closed transfer of "Extrazine" II 4L and container rinsate from
2 1/2 gallon plastic containers to mix tank or aircraft hopper, or
2) approved bulk or mini-bulk herbicide handling systems which allow
direct transfer of herbicide to mix tank or aircraft hopper. Systems
must be designed to protect mixer/loader personnel from exposure to
undiluted or diluted "Extrazine" II 4L.

All federal label guidelines for protective clothing must be followed.

This use is registered in all states.

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 the possession of the user at the time of pesticide mixing, loading and application.

[1] Registered trademark of E. I. du Pont de Nemours & Co. (Inc.)

E. I. du Pont de Nemours and Company
Agricultural Products Department
Wilmington, DE 19880-0038

050488

5/24/89

3/12

NOT REVIEWED

In Accordance with PR Notice 82-2.

Based on Draft Labeling Dated

SPECIMEN LABEL

5/24/87

H-13152

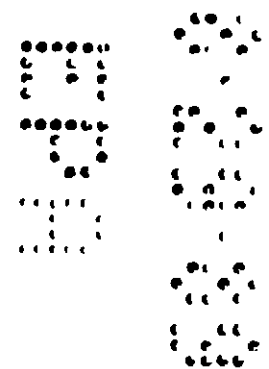


Extrazine II 4L

HERBICIDE



TRADEMARK



4/12

RESTRICTED USE PESTICIDE

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. See Precautionary Statements for reasons this product is classified Restricted Use.

REGISTRATION CODE 0549-000

PACKAGE SIZE
2 - 2 1/2 GALLON JUGS/CARTON
BULK



EXTRAZINE® II 4L

Herbicide

This product contains 4 pounds active ingredients per gallon.

LIQUID

ACTIVE INGREDIENTS	BY WEIGHT
Cyanazine: 2-[[4-chloro-6-(ethylamino)-s-triazin-2-ylamino]-2-methylpropionitrile.....	32.0%
Atrazine: 2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine.....	10.4%
Related compounds.....	0.6%
INERT INGREDIENTS.....	57.0%
	TOTAL 100.0%

EPA Reg. No. 352-500

KEEP OUT OF REACH OF CHILDREN WARNING

AVISO PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicada ampliamente.

STATEMENT OF PRACTICAL TREATMENT

- IF SWALLOWED:** Call a physician or poison control center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.
- IF IN EYES:** Flush with plenty of water. Call a physician.
- IF ON SKIN:** Wash immediately with plenty of soap and water.
- IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention. For medical emergencies involving this product, call 1-800-441-3837.

PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

WARNING: May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Causes temporary eye injury.

This product may be hazardous to your health. This product has been classified "Restricted Use" because, at doses which caused serious maternal illness in laboratory animals, birth defects were present. Use of protective clothing and equipment and following the precautions below can reduce risk.

Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Do not get in eyes or on clothing. Wear a face shield when mixing and loading. Wash thoroughly with soap and water after handling and before eating or smoking.

Wear long trousers and long-sleeved clothing when applying this product. Wear chemical resistant gloves extending above the wrist, long trousers, a chemical resistant apron, and long-sleeved clothing when mixing or loading or when adjusting, repairing or cleaning equipment. Protective gloves must be washed with soap and water after use and before removing from the hands. Remove contaminated clothing and wash before reuse. Contaminated clothing should be laundered separately from household laundry to prevent cross-contamination of other laundry. Heavily contaminated or soiled clothing and protective equipment must be discarded or destroyed in accordance with State and local regulations.

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.

Keep out of reach of domestic animals, particularly cattle. Consumption of this product, spray solutions or water contaminated with product can result in serious illness or possible death of bovines.

ENVIRONMENTAL HAZARDS

Cyanazine and Atrazine, the active ingredients of EXTRAZINE II, are pesticides which can move (seep or travel) through soil and can contaminate groundwater which may be used as drinking water. Cyanazine and Atrazine have been found in groundwater as a result of agricultural use. Users are advised not to apply EXTRAZINE II where the water table (groundwater) is close to the surface and where the soils are very permeable (e.g. well-drained soils such as loamy sands). Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Atrazine is toxic to aquatic invertebrates. Do not apply directly to water or wetlands. 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. In case of significant spill, call CHEMTREC 1-800-424-9300.

DIRECTIONS FOR USE

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

GENERAL INFORMATION

EXTRAZINE II 4L Herbicide is a selective herbicide for the control of annual grasses and broadleaf weeds in field corn, popcorn, and sweet corn.

Consult your local Agricultural Extension Agent for help in determining soil type, organic matter content, and the most appropriate herbicide rate for local conditions.

Do not apply this product in irrigation water with any kind of irrigation system.

Do not apply this product with aerial application equipment.

EXTRAZINE II 4L is not effective when used preemergence on peat or muck soils. Do not use EXTRAZINE II 4L on sands or loamy sands (soils consisting of more than 70% sand) containing less than 1% organic matter.

Weather Effects: As a preemergence herbicide, EXTRAZINE II 4L is active mainly through the roots, and, therefore, its effect on weeds is dependent on adequate rainfall to move the herbicide into the root zone. Moisture should be sufficient to thoroughly wet the soil throughout the zone where weed seeds may germinate and enough to make the soil too wet to cultivate. Rotary hoeing or shallow cultivation is recommended for those applications which are not incorporated at the time of treatment, if adequate rainfall or sprinkler irrigation has not occurred within about ten days after application of EXTRAZINE II 4L.

Heavy rainfall between planting and crop emergence may cause crop injury or stand loss. Rainfall tends to cause excessive concentrations of herbicide in the seed furrow, resulting in possible crop injury. Level deep planter marks or seed furrows before application.

Under conditions which delay weed germination, such as low temperatures, lack of soil surface moisture, or when germination extends over a long period, the effectiveness of the herbicide may be impaired. Rotary hoeing, shallow cultivation or a postemergence herbicide treatment may be of benefit under these circumstances.

If the crop is cultivated, tillage should be shallow to minimize herbicide dilution in the soil. Should the crop stand be lost due to adverse weather conditions, insects, etc., the field can be replanted the same season to corn or sorghum.

To enhance weed control in areas of less than 25 inches of rainfall or where long dry periods are common, these treatments may require shallow incorporation with a tool such as a field cultivator operated from 5-7 mph. Incorporation should not be more than three inches deep to keep from burying the herbicide. A spike-toothed harrow, deep tillage disk or rolling basket device is not recommended for incorporating EXTRAZINE II 4L.

When applied as a post-emergence herbicide, EXTRAZINE II 4L is also active through tillage as well as through the roots. Yellowing and/or stunting of the crop may result from this treatment, particularly if cold, adverse growing conditions occur after application. Extended or extreme cold and wet conditions may reduce stands. Do not apply EXTRAZINE II 4L postemergence to a crop that is damaged or growing under stress.

OBSERVE ALL CAUTIONS AND LIMITATIONS ON LABELING OF ALL PRODUCTS USED IN MIXTURES.

Rotational crops: (1) Plant only corn, sorghum, or soybeans the year following the use of this mixture. (2) If soybeans are to be planted, injury may occur. (3) If applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur. (4) In the high plains and inter-mountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to be planted the following year, or a crop of corn or sorghum not treated with this mixture or atrazine is to precede other rotational crops. (5) Small grains may be planted 15 months following treatment. (6) All other crops may be planted 18 months after application.

Triazine Resistant Weeds: In fields where triazine resistant biotypes of weeds have been identified, EXTRAZINE II 4L should be used in combination with or in sequence with other registered non-triazine herbicides. (Triazine resistant biotypes of Kochia and Pigweed have been identified in some fields in the Western Great Plains and triazine resistant biotypes of Pigweed and Lambquarters have been identified in some fields in various states.) Consult with appropriate state agricultural extension service representatives for specific recommendations.

APPLICATION DIRECTIONS

GENERAL MIXING AND SPRAYING DIRECTIONS

This product may not be applied by means of chemigation or aerial application.

Use sufficient agitation to ensure that the EXTRAZINE II 4L is completely dispersed and in uniform suspension prior to application or tank mixing with other formulations.

The following general mixing instructions are recommended:

I. General

1. Unless otherwise specified, use at least 7.5 gallons of water per acre for soil applications and at least 15 gallons of water per acre for foliar applications for all applications with ground equipment.
NOTE: Sufficient carrier must be used to assure uniform application. Follow label requirements of all products used in tank mix combinations.
2. A nitrogen solution or complete liquid fertilizer may replace all or part of the water as a carrier for preemergence or preplant application on corn. Do not apply fertilizer mixtures after crop emerges, as injury may occur.
3. Always check the tank mix compatibility (TMC) of this or any other formulation before mixing with liquid fertilizer carriers or other formulations. A simple but generally reliable TMC evaluation procedure has been provided for your use in Step II of these mixing instructions.
4. Start with thoroughly clean equipment. (See the labels of the previous compounds used for cleaning instructions.)
5. Fill the tank at least 1/2 full with carrier. Start and maintain consistent agitation through all mixing and spraying procedures. Make sure the agitation system is working properly and creates a rippling or rolling action on the liquid surface.
6. Add the recommended amount of EXTRAZINE II 4L to the tank.
7. Fill the tank to 75 percent capacity with carrier. Filling and bypass lines should be kept below liquid surface. Increase tank agitation if necessary to maintain surface action.
8. When desired, appropriate emulsible crop oil, crop oil concentrate, or other tank mix formulations should be added at this time. Pre-slurry these added ingredients before addition, if the compatibility test shows it to be necessary.
9. Complete filling tank, maintaining sufficient agitation at all times to ensure surface action. This applies to both spray and nurse tanks.
10. Tank mixtures should always be applied immediately after preparation. If, for any reason, this is not possible, assure that sufficient agitation has been provided to re-mix all products and check for complete re-suspension prior to application.

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11. Empty tank as completely as possible before refilling to prevent buildup of oil or emulsible concentrate residues when tank mixing with these formulations. Always maintain agitation to avoid separation.
12. If an oil or emulsible concentrate film starts to build up after using these formulations, drain and clean the tank with strong detergent solution or appropriate solvent.
13. It is recommended that the sprayer be thoroughly cleaned by flushing with a detergent solution at the end of each work day when any emulsible crop oil, crop oil concentrate, or other emulsible formulation has been used either alone or in tank mix combinations with other pesticide formulations. This precaution will ensure a clean sprayer and continued trouble-free operation.

E. Tank Mix Compatibility Evaluation Procedure

1. Add 1 pint of carrier liquid to each of 2 one-quart jars. Mark 1 quart jar "with" and the other "without."
2. Add 1/4 teaspoon of a suitable compatibility agent (1/4 teaspoon/pint = 2 pints/100 gallons of carrier) to the jar marked "with"; cap the jar and shake gently for 5 to 10 seconds to mix.
3. Add the appropriate amount of herbicide to both jars, cap each jar and shake gently for 5 to 10 seconds to mix. If problems are encountered in mixing wettable powder or dry flowable formulations into a liquid fertilizer, pre-slurry these formulations in water prior to their addition to the liquid fertilizer and proceed with the test. The following chart has been provided to assist in selecting the approximate EXTRAZINE II 4L use rate for this evaluation.

JAR TEST FOR "EXTRAZINE" II 4L COMPATIBILITY						
Gallons of Liquid Carrier	4	7.5	15	20	25	30
Teaspoons of EXTRAZINE II 4L per pint of Liquid Carrier	6.0	3.2	1.6	1.2	1.0	0.8

This chart is based on 1 quart of EXTRAZINE II 4L (1.0 pound active ingredient) per acre in the indicated carrier volumes. Intended field use rates are achieved by varying the amount of EXTRAZINE II 4L. (e.g., for a field use rate of 3 quarts of EXTRAZINE II 4L in 15 gallons of carrier per acre, add 4.8 teaspoons of EXTRAZINE II 4L to the quart jar containing 1 pint of carrier. Calculation: 3 quarts of EXTRAZINE II 4L/15 gallons of carrier per acre = 3 X 1.6 = 4.8 teaspoons of EXTRAZINE II 4L per pint of carrier.)

4. Let each jar stand one-half hour and make observations. If any separation, agglomeration, or precipitation has occurred, shake the jar again for 10 to 15 seconds, and note whether any of the following occur:
 - a. Separated phases do not re-mix uniformly.
 - b. Screennozzles plugging lamps do not dispense.
 - c. Precipitate does not re-suspend readily.
 - d. Precipitate sticks tenaciously to the glass.
5. If none of the above problems occur in either jar, the herbicide can, in most cases, be safely used in that carrier without a compatibility agent.
6. If problem 4.a or 4.b occurs in the jar marked "without" but does not occur in the jar marked "with", the compatibility agent should be used.
7. If problem 4.a or 4.b is seen in both jars, then the herbicide and carrier are incompatible and should not be used in the same spray tank. Alternatively, a different tank mix compatibility agent can be evaluated.

8. If problem 4.c or 4.d occurs in the jar marked "without" but does not occur in the jar marked "with", the compatibility agent should be used unless constant, thorough agitation can be established and immediate clean-out of the spray system is performed.
9. If problem 4.c or 4.d is seen in the jar marked "with", the user proceeds with mixing and application at his own risk should the agitation in the system be insufficient or curtailed.
10. Those mixtures defined as compatible in this test should then be mixed for use as indicated in Steps 1 through 12 of the general mixing instructions listed above.

If a test such as outlined indicates that components of a proposed mix are compatible, the applicator still has the responsibility of combining materials in sequence to the spray tank in accordance with directions prescribed on the label of the herbicides or pesticides involved.

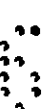
Tests have indicated that compatibility agents, noted below by the various tank mix combinations, may give improved compatibility in liquid fertilizers.

Tank Mix Combination	Compatibility Agents
"EXTRAZINE" II 4L / CLASSO [®] (Liquid Fertilizer Grade)	Probably not needed in 28-0-0, 10-34-0. "Comper" may help in others.
"EXTRAZINE" II 4L / SEVATE PLUS [®] / SUTAN [®] 6.7E	Probably not needed in 28-0-0. Incompatible in 10-34-0. "Urbic", "Spray-...ale", "Kam-Link", may help in others.
"EXTRAZINE" II 4L / DUAL [®] 8E	Probably not needed in 28-0-0. "Urbic", "Spray-Male", "Tory Liquid" may help in others.

III. Application Equipment

1. Use application equipment fitted with nozzles that provide accurate and uniform coverage. Be certain that nozzles are uniformly spaced and the same size. Calibrate sprayer before use and re-check frequently during use whenever possible.
2. Use a pump with capacity to:
 - a. Maintain 35 to 40 psi at the nozzle.
 - b. Provide sufficient agitation in tank to keep mixture in suspension.
 - c. Provide a minimum of 20 percent bypass at all times.
3. Use centrifugal pumps which provide sufficient geyser action for dispersing and mixing the product. The pump should provide a minimum of 10 gallons/minute/100-gallon tank size circulated through the jets of a correctly-positioned spray bar.
4. Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 10 to 16 mesh. Do not place a screen if the manufacturer's. Use a 40- to 50-mesh screen between the pump and B&B[®] and, where required, 50-mesh screens at the nozzles. Check your equipment manufacturer's literature for specific recommendations.

FERTILIZER IMPREGNATION



EXTRAZINE II 4L Herbicide may be applied when coated on or impregnated in dry granular fertilizer for early preplant, preemergence or preplant incorporated weed control in field corn. All recommendations, cautions and special precautions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling.

General Blending Directions

EXTRAZINE II 4L may be coated on or impregnated in dry bulk fertilizers using tower blenders, rotary drum blenders or blending augurs or conveyors. DO NOT impregnate EXTRAZINE II 4L or tank mixes containing EXTRAZINE II 4L on or in fertilizers containing Ammonium Nitrate, Potassium Nitrate, or Sodium Nitrate. Do not use on straight limestone since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated when using EXTRAZINE II 4L alone. Use a minimum of 200 lbs. and a maximum of 450 lbs. per acre of dry fertilizer.

Use equipment that will give a uniform distribution of the herbicide throughout each batch of impregnated fertilizer. Non-uniform impregnation can cause crop injury or unsatisfactory performance.

A. EXTRAZINE II 4L may be used as the only herbicide for impregnation.

1. Add EXTRAZINE II 4L to the total fertilizer volume required and mix thoroughly.

2. Add Ag-Sorb or MP-79 drying agent (or a suitable amount of another effective drying agent) as needed to insure a spreadable herbicide/fertilizer mixture. The need for a drying agent is determined by the wetness of the fertilizer batch. Wetness can change with humidity, nitrogen content, fertilizer types, fertilizer rates and herbicide rates.

B. EXTRAZINE II 4L may be used in tank mixes with other herbicides registered for this use. The amount of drying agent needed will vary depending on whether the product is a dry or liquid formulation. EXTRAZINE II 4L and SUTAN+, ERADICANE, DUAL or LASSO can be mixed together in the proper use ratio for simultaneous impregnation. If there is a mixing compatibility problem then add the EXTRAZINE II 4L first as follows:

1. While fertilizer is blending, add the EXTRAZINE II 4L.

2. Spray in the EC herbicide and mix thoroughly for at least 3 minutes.

3. Add drying agent to insure a spreadable herbicide/fertilizer mixture. Generally less than 2% by weight of drying agent will be needed.

(For more information on Drying Agents, Application Equipment, Calibration Guide and variations of these methods, see Du Pont Bulletin on "Fertilizer Impregnation").

CLEAN OUT:

Equipment used to impregnate or apply fertilizer impregnated with EXTRAZINE II 4L or combinations including EXTRAZINE II 4L must be cleaned out by running at least 1,000 lbs. of fertilizer not impregnated with EXTRAZINE II 4L through the impregnation equipment and application equipment, if the next batch of material is to be applied to a crop for which EXTRAZINE II 4L or a combination herbicide is not registered.

APPLICATION:

Uniform application of EXTRAZINE II 4L which has been impregnated in or coated on dry fertilizer is essential for satisfactory weed control and crop safety. Accurate calibration of the fertilizer applicator is necessary. Applying while turning at the ends of the fields may result in excessive application rates causing crop injury. Do not double apply across the ends or sides of the field.

Crop injury and/or poor weed control may occur where the impregnated fertilizer is not uniformly applied. Air flow or augur metered application equipment is preferred (one pass application). If other equipment is used, the recommended method of application is to apply 1/2 the recommended rate and overlap 50 percent to double apply by splitting the middles to obtain the best distribution pattern.

Apply immediately after impregnation. Impregnated fertilizer may become lumpy and difficult to spread if stored.

RATES AND TIMING:

Use the application rates and timing shown in the appropriate sections of this label. Follow the precautions on the labels of all products used.

CORN

Weeds Controlled by EXTRAZINE II 4L Alone and in Combination with Other Herbicides on Corn

Grasses

Annual bluegrass
Annual leecue
Annual (Italian) ryegrass
Barnyardgrass(1)
Bulgrass

Crabgrass
Fall panicum
Giant foxtail
Goosegrass
Green foxtail

Junglerice
Stinkgrass (Indian
lovegrass)
Witchgrass
Yellow foxtail

Broadleaves

Annual groundcherry
Annual morningglory
Annual sedge
Black mustard
Buffalobur
Buttercup (annual)
Carpetweed
Common chickweed
Cocklebur(2)
Common groundsel
Common mallow
Common purslane
Corn spurry
Curly dock (seedling)
Fiddleneck

Florida pusley
(Florida purslane)
Hedge mustard
Jimsonweed(1)
Kochia
Ladysthumb
Lambaquarters
Mayweed
Nightshade (annual)
Pigweed(1)
Pineappleweed
Plantain
Poojoe
Prickly sida (leafweed)
Prostrate knotweed
Prostrate spurge

Ragweed (Common)
Russian Thistle
Shepherdspurse
Smallflower galinsoga
Smartweed
(Pennsylvania)
Spiny sida
Sunflower(2) (wild,
annual, common)
Tarweed cuphea
(Gumweed)
Velvetleaf(1)
Wild buckwheat
Wild mustard
Wild radish
Wild turnip

(1) Under conditions such as low temperatures, lack of soil surface moisture, or other factors that may cause delay in germination of the seeds, the effectiveness of EXTRAZINE II 4L may be impaired against these weeds.

(2) The degree of control will be reduced if soil moisture and temperature conditions cause deep germination of the seed.

PREEMERGENCE-PREPLANT INCORPORATED

Apply EXTRAZINE II 4L treatments just before, at, or after planting but before crop has emerged. Avoid removal of treated soil from seedrow prior to or during the planting operation.

EXTRAZINE II 4L may also be applied early prior to planting or in a split application if pre-season weed control is desired. For split applications, do not exceed the total amount of EXTRAZINE II 4L for the soil texture and organic matter shown in Table 1. If EXTRAZINE II 4L is applied early, more than 15 days before planting, a split application of EXTRAZINE II 4L or some other herbicide treatment may be necessary at or after planting to provide additional length of weed control. For further information, see "Early Preplant" recommendations in the Conservation Tillage section of label.

Rotary hoeing is recommended for preemergence applications which do not receive adequate rainfall or sprinkler irrigation to wet the top 2 inches of soil or depth of germinating weeds within about 10 days after application.

EXTRAZINE II 4L alone or in tank mix combinations should not be incorporated more than three inches deep to keep from burying the herbicide. Single or two pass incorporation with a tool such as a field cultivator operated at 5-7 mph is acceptable. A spike-toothed harrow, deep tillage disk or rolling basket device is not recommended for incorporating EXTRAZINE II 4L.

See the Rotational Crops statement in the General Information section of the label.

**TABLE 1
PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR "EXTRAZINE" II 4L
APPLIED ALONE ON CORN**

Soil Texture Description	Quarts of "EXTRAZINE" II 4L Percent Organic Matter in Soil*				
	Less Than 1%	1%	2%	3%	4% & Over
Sand, Loamy sand	DO NOT USE	1.25	1.5	2.0	2.5
Sandy loam	1.25	1.5	2.0	2.5	3.25
Loam, Silty loam, SA	1.5	2.0	2.75	3.25	4.0
Sandy Clay loam, Clay loam, Silty clay loam	2.0	2.75	3.25	4.0	4.5
Sandy clay, Silty clay, Clay	2.75	3.25	4.0	4.5	4.75
Peat or Muck	NOT RECOMMENDED				

* For organic matter content between those listed, adjust the rate proportionately.

EXTRAZINE II 4L Applied Alone
Use at the proper rate for soil texture and organic matter indicated in Table 1.

EXTRAZINE II 4L COMBINATIONS

EXTRAZINE II 4L plus LASSO etc
Use EXTRAZINE II 4L at the proper rate for the soil texture and organic matter shown in Table 2 plus 2 quarts per acre of LASSO (Use 2.5 quarts LASSO on dry soils containing 5 percent organic matter and over).

EXTRAZINE II 4L plus SUTAN+ & TEGENATE PLUS or ERADICANE & TE
Use EXTRAZINE II 4L at the proper rate for the soil texture and organic matter shown in Table 2 plus 1.8 quarts per acre of SUTAN+GENATE PLUS or ERADICANE for control of many annual grasses and broadleaf weeds. (Use 2.4 quarts of SUTAN+GENATE PLUS or ERADICANE on loam soils containing 5 percent or more organic matter.) Do not use on sands and heavy sands or less than 1 percent organic matter in the light sandy soils of eastern coastal states. Do not use on corn seed stock.

Apply before planting. Incorporate the mixture immediately upon application using power-driven cultivation equipment set for 2 to 3 inch depth, or a tandem disc set to cut to a depth of about 4 inches while operating at 4 to 6 mph. For thorough mixing, disc in two directions (cross disc), and follow with a harrow, drag, or other leveling device. Prior to the second discing, readjust the disc to prevent cutting deeper than 4 inches. EXTRAZINE II 4L may be applied preemergence as an overlay over previous incorporated SUTAN+GENATE PLUS or ERADICANE if desired.

Existing stands of quackgrass, purple and yellow nutsedge must be turned under and thoroughly chopped up prior to chemical treatments.

Additional weeds controlled by SUTAN+GENATE PLUS or ERADICANE combinations:

- | | |
|----------------------------|-----------------------------------|
| Grasses | |
| Sandbar | Shallcress (WRD Carex)* |
| Toxic Pericium | Quackgrass (ERADICANE only) |
| | WRD Proso Millet (ERADICANE only) |
| Perennial Weeds | |
| Yellow Nutsedge (nutgrass) | Purple Nutsedge (nutgrass) |

* Suppression only -- refer to SUTAN+GENATE PLUS or ERADICANE label for appropriate supplement cultural and tillage practices.

For fields with moderate to heavy infestations of these weeds, refer to the SUTAN+GENATE PLUS or ERADICANE labels for appropriate higher rates.

EXTRAZINE II 4L plus DUAL GE
Use EXTRAZINE II 4L at the proper rate for soil texture and organic matter shown in Table 2. Use DUAL as follows:

SOIL TEXTURE	BROADCAST RATE PER ACRE FOR DUAL GE
Coarse Sand, Loamy sand, Sandy loam	1.25 - 1.5 pints
Medium Loam, Silty loam, SA	1.5 - 2.0 pints
Fine Sandy clay loam, Silty clay loam, Clay loam, Sandy clay, Silty clay, Clay	1.5 - 2.5 pints

The low end of the rate range should be used for lowest organic matter soils and the rate increased as organic matter increases to a point that soils containing 4 percent organic matter or more require the highest rate shown for that soil texture. Refer to the DUAL label for additional precautions on rotational crops.

CONSERVATION TILLAGE/WEED CONTROL

Early Preplant (EPP)
EXTRAZINE II 4L may be used for Early Preplant or Preemergence weed control for land going into the production of corn under conservation tillage programs. Complete any planned early spring tillage prior to application. Apply herbicide treatment before 1000° germinate or before weed seedlings are more than 3 inches tall. Tillage after application may reduce the effectiveness of the herbicide treatment. A nitrogen solution or complete fertilizer solution may replace all or part of the spray as a carrier. The spray gallonage and spray boom design must be adequate to give thorough uniform coverage of the weed foliage. Follow label requirements of all products used in tank mix combinations.

EXTRAZINE II 4L alone: Apply 15 to 30 days prior to planting. Use the proper rate for soil texture and organic matter indicated in Table 1. Where heavy crop residues exist, the rates shown in Table 1 should be increased by 25 percent.

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**TABLE 2
PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR "EXTRAZINE" II 4L USED IN TANK MIX COMBINATIONS WITH "LASSO", "SUTAN", "GENATE PLUS", "ERADICANE", OR "DUAL" ON CORN**

Soil Texture Description	Quarts of EXTRAZINE II 4L					
	Percent Organic Matter in Soil*					
	Less Than 1%	1%	2%	3%	4%	5% & Over
Sand, Loamy sand	0.6**	0.75	1.25	1.5	1.75	2.0
Sandy loam	0.75	1.25	1.5	1.75	2.0	2.25
Loam, Sil loam, Sil Sandy clay loam,	1.25	1.5	1.75	2.0	2.25	2.5
Clay loam, Silty clay loam	1.5	1.75	2.0	2.25	2.5	2.75
Sandy clay, Silty clay, Clay	1.75	2.0	2.25	2.5	2.75	3.0
Peat or Muck	NOT RECOMMENDED					

* For organic matter content between those listed, adjust the rate proportionately.
** Do not use on the light sandy soils of the Atlantic Coastal Plain.

EXTRAZINE II 4L plus PRINCEP 4L or EXTRAZINE II 4L plus PRINCEP CALIBER 90: Apply 30 days or more prior to planting. Use the proper rate of EXTRAZINE II 4L for the soil texture and organic matter indicated in Table 1 and add 1 quart/acre of PRINCEP 4L or 1.11 pounds/acre of PRINCEP CALIBER 90.

Burndown of Existing Weeds:
Combinations with 2,4-D: When broadcast weeds are present at the time of application, add 2,4-D LV Ester at 1-1/3 - 2 pts./A. (6 lbs./gal.) or 2 - 3 pts./A. (4 lbs./gal.) (or 2,4-D Amine at recommended rates) plus Ortho X-77 surfactant at 1 qt./100 gals. of diluted spray, or other suitable non-ionic surfactant at its recommended rate. When 2,4-D Ester is tank mixed with EXTRAZINE II 4L as described, these additional weeds will be controlled: Buckhorn, Dandelion, Dock, Marweed, Pennygrass, Pitted Inula and Tansy Mustard.

Combinations with Paraquat Products or ROUNDUP: When grasses are present under when existing weeds exceed 3 inches in height, add paraquat at 1-2 pts./A. (2 lbs/gal) or 1.3-2.7 pts./A. (1.5 lbs/gal) or 2 pts./A. of ROUNDUP to the above mixture. Well established weeds over 6 inches tall may not be well controlled. With paraquat use 20-40 gal./A. of spray mixture by ground rig. (Use the higher gallonage for heavy infestations of weeds.) Add 1 to 2 pints of a non-toxic surfactant per 100 gallons of spray. Using fertilizer solutions containing phosphorus as a carrier will reduce the activity of paraquat products.

Sequential Applications: Depending upon the application timing and the weather conditions following the EPP application, a sequential herbicide treatment may be necessary to provide additional length of weed control. This may be a postemergence treatment with BLADEX, CONQUEST, EXTRAZINE, EXTRAZINE II or some other herbicide treatment applied at or after planting; if desired, 1-1/2 - 2 pts./A. of DUAL or 2 pts./A. of LASSO may be tank mixed with the EXTRAZINE II 4L EPP treatment or applied preemergence at planting.

Rotational Crops: Refer to the General Information section of this label and to the labels of all products used in combination or in sequence.

At Planting
EXTRAZINE II 4L applied alone or in combination with LASSO or DUAL according to the following directions will kill most existing small weeds and suppress many emerged perennial weeds when corn is planted into no-till stalk ground (corn, sorghum), stubble ground (soybean, small grains), and any minimum-till situation. This treatment then provides residual control of annual weeds as in conventional tillage.

Apply EXTRAZINE II 4L alone or with other products according to the directions for those treatments in the Postemergence section of the label. Where heavy crop residue exists, the EXTRAZINE II 4L rate shown in Table 1 should be increased by 25 percent. Add 2,4-D LV Ester at 1/2 - 1 pt./A. (6 lbs./gal.) or 0.75 - 1.5 pt./A. (4 lbs./gal.) (or 2,4-D Amine at recommended rates). Add the 2,4-D to the spray tank last. Use a minimum of 25 gal./A. of carrier. Complete spray coverage of the weeds is essential for best performance.

Nitrogen solutions and complete liquid fertilizers are the preferred carriers for this treatment because they add in the burndown of existing weeds. Add ORTHO X-77 surfactant at 1-2 qts. per 100 gals. of diluted spray, or other suitable surfactant at its recommended rate. If water is used as a carrier, crop oil concentrate may be used as an adjuvant. Apply before weeds exceed 3 inches in height. For control of existing stalks, add 1/3-1/2 pt./A. of BANVEL to the spray mixture. Apply before the stalks exceed 6 inches in height.

For fields with existing sod grasses such as orchardgrass, bromegrass, ryegrass or timothy, or when very dry conditions exist, or when existing weeds exceed 3 inches in height add paraquat to the tank-mix. Use 2 pts./A. (2 lbs./gal) or 2.7 pints/A. (1.5 lbs./gal) paraquat in combination with EXTRAZINE II 4L as described above in this section, except the 2,4-D may be omitted, if desired. Do not apply paraquat in suspension type liquid fertilizer.

POSTEMERGENCE

Under warm, sunny, dry conditions of low humidity and the absence of dew formation at night, EXTRAZINE II 4L may be applied postemergence on field corn only. Do not use a surfactant, crop oil, or any other adjuvant. Addition of a surfactant, EV oil, or fertilizer solution is not recommended because moderate to severe injury, including stand loss, may occur.

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, stunting or stand loss may result from this treatment, particularly if high rainfall or cold, adverse growing conditions occur after application.

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

EXTRAZINE II 4L Applied Alone

Use EXTRAZINE II 4L at the proper rate for the soil texture and organic matter shown in Table 3 or 4. Use rates shown in Table 3 if BLADEX, CONQUEST, EXTRAZINE or EXTRAZINE II has not been applied to the soil this season. Use rates shown in Table 4 if BLADEX, CONQUEST, EXTRAZINE or EXTRAZINE II has been applied to the soil this season. This treatment may be used on peat or muck soils for burndown and suppression of existing weeds but will not provide residual control. Apply from crop emergence through the four-leaf stage of corn growth before weeds exceed about 1-1/2 inches in height. Do not apply over the top of corn if the fifth leaf is visible. Apply in water only. Do not spray emerged corn plants in a liquid fertilizer carrier or in tank mix combinations with EC formulation herbicides.

Rotational Crops: Refer to the General Information section of the label.

SWEET CORN

EXTRAZINE II 4L may be applied preemergence or preplant incorporated for the control of annual grasses and broadleaf weeds in sweet corn.

NOTE: EXTRAZINE II 4L may cause injury or stand loss on new or "super sweet" varieties of sweet corn. Consult with Agricultural Extension Agencies and sweetcorn seed suppliers about the sensitivity of new varieties to potential injury.

Apply EXTRAZINE II 4L treatments just before, at or after planting but before crop has emerged. Avoid removal of treated soil from seedrow prior to or during the planting operation. Do not apply postemergence to sweet corn.

Rotary hoeing is recommended for preemergence applications which do not receive adequate rainfall or sprinkler irrigation to wet the top 1 1/2 to 2 inches of soil within about 10 days after application.

If a EXTRAZINE II 4L mixture is to be incorporated, except as noted, single or two pass incorporation is acceptable. Care should be taken to incorporate the EXTRAZINE II 4L mixture no deeper than the top two inches of soil.

Rotational Crops: (1) Plant only corn, sorghum or soybeans the year following the use of this mixture. (2) If soybeans are to be planted, injury may occur due to the carryover of Atrazine. (3) If applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur. (4) Small grains may be planted 15 months following treatments. (5) All other crops may be planted 18 months after application.

TABLE 3
POSTEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR "EXTRAZINE" II 4L ON CORN
NO PRIOR APPLICATION OF "BLADEX", "CONQUEST", "EXTRAZINE" OR "EXTRAZINE" II

Soil Texture Description	Quarts of EXTRAZINE II 4L			
	Percent Organic Matter in Soil*			
	Less Than 1%	1%	2%	Over 2%
Sand, Loamy sand	DO NOT USE	1.25	1.5	2.0
Sandy loam	1.25	1.5	2.0	2.0
Loam, Silt loam, Silt	1.5	2.0	2.0	2.0
All other textures	2.0	2.0	2.0	2.0

* For organic matter content between those listed, adjust the rate proportionately.

TABLE 4
POSTEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR "EXTRAZINE" II 4L ON CORN
"BLADEX", "CONQUEST", "EXTRAZINE" OR "EXTRAZINE" II USED IN PRIOR APPLICATION

Soil Texture Description	Quarts of EXTRAZINE II 4L			
	Percent Organic Matter in Soil*			
	Less Than 1%	1%	2%	Over 2%
Sand, Loamy sand	DO NOT USE	DO NOT USE	1.4	1.4
Sandy loam	DO NOT USE	DO NOT USE	1.8	2.0
Loam, Silt loam, Silt	DO NOT USE	1.4	2.0	2.0
All other textures	DO NOT USE	1.8	2.0	2.0

* For organic matter content between those listed, adjust the rate proportionately.

TABLE 5
PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR "EXTRAZINE" II 4L APPLIED ALONE ON SWEET CORN

Soil Texture Description	Quarts of EXTRAZINE II 4L					
	Percent Organic Matter in Soil*					
	Less than 1%	1%	2%	3%	4%	5% & Over
Sand, Loamy sand	DO NOT USE	1.2	1.5	2.0	2.4	3.3
Sandy loam	DO NOT USE	1.5	2.0	2.4	3.1	4.1
Loam, Silt loam, Silt	DO NOT USE	2.0	2.4	3.1	3.8	4.5
Sandy clay loam, Clay loam, Silty clay loam	DO NOT USE	2.4	2.9	3.8	4.5	5.0
Sandy clay, Silty clay, Clay	DO NOT USE	2.9	4.1	4.5	5.0	2.25
Peat or Muck	NOT RECOMMENDED					

* For organic matter content between those listed, adjust the rate proportionately.

EXTRAZINE II 4L Alone

Apply EXTRAZINE II 4L at the proper rate for soil texture and organic matter indicated in Table 5.

containing 5 percent or more organic matter, and clay loams and clays containing 4 percent or more organic matter.) Do not use on sands and loamy sands having less than 1 percent organic matter nor on the light sandy soils of eastern coastal states. Do not use on corn grown for seed.

EXTRAZINE II 4L plus LASSO 4EC

Use EXTRAZINE II 4L at the proper rate for the soil texture and organic matter shown in Table 6 plus 2 quarts per acre of LASSO (Use 2.5 quarts LASSO on clay soils containing 5 percent organic matter and over.)

Apply before planting. Incorporate the mixture immediately upon application using power-driven cultivation equipment set for 2-3 inch depth, or tandem disc set to cut about 4 inches deep while operating at 4-6 mph. For thorough mixing, disc in two directions (cross disc), and follow with a harrow, drag, or other leveling device. Prior to the second discing, readjust the disc to prevent cutting deeper than 4 inches. EXTRAZINE II 4L may be applied preemergence as an overlay over previously incorporated SUTAN+, GENATE PLUS or ERADICANE, if desired.

EXTRAZINE II 4L plus SUTAN+ 6.7E, GENATE PLUS or ERADICANE 6.7E

Do not use combinations with SUTAN+, GENATE PLUS or ERADICANE in New Jersey.

Use EXTRAZINE II 4L at the proper rate for the soil texture and organic matter shown in Table 6 plus 1.8 quarts per acre of SUTAN+, GENATE PLUS or ERADICANE for control of many annual grasses and broadleaf weeds. (Use 2.4 quarts of SUTAN+ or ERADICANE on loam soils

Existing stands of quackgrass, purple and yellow nutsedge must be turned under and thoroughly chopped up prior to chemical treatments.

TABLE 6
PREEMERGENCE BROADCAST APPLICATION RATES PER ACRE FOR "EXTRAZINE" II 4L USED IN TANK MIX COMBINATIONS WITH "LASSO", "SUTAN+", "GENATE PLUS", "ERADICANE" OR "DUAL" ON SWEET CORN

Soil Texture Description	Quarts of EXTRAZINE II 4L					
	Percent Organic Matter in Soil*					
	Less than 1%	1%	2%	3%	4%	5% & Over
Sand, Loamy sand	DO NOT USE	0.8	1.3	1.5	1.8	2.0
Sandy loam**	DO NOT USE	1.2	1.5	1.7	2.0	2.2
Loam, Silt loam, Silt	DO NOT USE	1.5	1.8	2.0	2.2	2.7
Sandy clay loam, Clay loam, Silty clay loam	DO NOT USE	1.8	2.0	2.2	2.7	2.9
Sandy clay, Silty clay loam	DO NOT USE	2.0	2.5	2.7	2.9	3.1
Peat or Muck	NOT RECOMMENDED					

*For organic matter content between those listed, adjust the rate proportionately.
**Do not use in the light sandy soils of the Atlantic Coastal Plain.

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Additional weeds controlled by SUTAN+, GENATE PLUS or ERADICANE combinations:

Grasses:

Sandbur	Shattercane (Wild Cane)*
Texas Panicum	Quackgrass (ERADICANE Only)
Wild Proso Millet* (ERADICANE only)	

Perennial Weeds

Yellow Nutsedge (Nutgrass)	Purple Nutsedge (Nutgrass)
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*Suppression only - refer to SUTAN+, GENATE PLUS or ERADICANE label for appropriate supplemental cultural and tillage practices.

For fields with moderate to heavy infestations of these weeds refer to the SUTAN+, GENATE PLUS or ERADICANE labels for appropriate higher rates.

EXTRAZINE II 4L plus DUAL 8E

Use EXTRAZINE II 4L at the proper rate for soil texture and organic matter shown in Table 6. Use DUAL as follows:

SOIL TEXTURE	BROADCAST RATE PER ACRE FOR "DUAL" 8E
Coarse Sand, Loamy sand, Sandy loam	1.25 - 1.5 pints
Medium Loam, Silt loam, Silt	1.5 - 2.0 pints
Fine Sandy clay loam, Silty clay loam, Clay loam, Sandy clay, Silty clay, Clay	1.5 - 2.5 pints

The low end of the rate range should be used for lowest organic matter soils and the rate increased proportionately as the organic matter increases. Soils containing 4 percent organic matter or more require the highest rate shown for that soil texture. Refer to the DUAL label for precautions or additional information on rotational crops.

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STORAGE AND DISPOSAL

Storage: Do not contaminate water, food, or feed by storage or disposal. Do not use or store around the home environment. Avoid contact with water. In case of spill or leak, soak up with sand, earth or synthetic absorbent. Do not use alkaline absorbents, and dispose of wastes in compliance with local, state and Federal regulations.

Pesticide Disposal: Pesticide, spray mixture, or residue that cannot be used according to label instructions must be disposed of according to applicable Federal, state, or local procedures.

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.

NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the 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 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 OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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- ERADICANE - Trademark of ICI Americas, Inc.
- GENATE PLUS - Trademark of PPG Industries, Inc.
- LASSO, ROUNDUP - Trademarks of Monsanto Co.
- ORTHO X-77 - Trademark of Chevron Chemical Co.
- PRINCEP, CALIBER - Trademarks of CIBA-Geigy Corp.
- SUTAN+ - Trademark of ICI Americas, Inc.

