

10F12
Pm25
10182-121

ACCEPTED
JUL 21 1987
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 10182-121

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.

COLONEL HERBICIDE

KEEP OUT OF REACH OF CHILDREN

DANGER
 **POISON**

**DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.
READ DANGER STATEMENTS AND WORKER SAFETY RULES ON
BACK PANEL.**

**DO NOT USE OR STORE IN OR AROUND THE HOME.
ONE SWALLOW CAN KILL!
SYMPTOMS ARE PROLONGED AND PAINFUL. ONSET OF
SYMPTOMS MAY BE DELAYED FOR UP TO 3 DAYS AFTER
SWALLOWING.**

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

| Active ingredient: | By wt. |
|--|----------------|
| Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride) | 6.32% |
| Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine | 22.88% |
| INERT INGREDIENTS | 70.80 |
| TOTAL | 100.00% |

Call ICI Americas Medical Emergency Information
Center 800/327-8633 (Dial 1-800-F-A-S-T-M-E-D).



DANGER Corrosive, causes eye and skin damage.
Can Kill If Swallowed. May Be Harmful or Fatal If Absorbed
Through Skin or Inhaled.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: IMMEDIATELY induce vomiting by inserting finger in throat. Administer fluids and induce further vomiting. Get to a hospital or physician fast. PROMPT TREATMENT IS ESSENTIAL and must be initiated before signs and symptoms of injury appear. *Note to Physicians:*

at any hour to obtain toxicology and medical management consultation, a supply of bentonite clay, and paraquat analysis. Symptoms following ingestion may be delayed up to 3 days. To be effective, treatment for paraquat poisoning must begin IMMEDIATELY. Treatment consists of binding paraquat in the gut with suspensions of bentonite clay or charcoal and removal of paraquat from the blood by prolonged charcoal hemoperfusion or continuous hemodialysis.

SKIN CONTACT: IMMEDIATELY wash with soap and water. Remove and wash all contaminated clothing with soap and hot water before reuse. Prolonged contact will cause severe irritation. Contact with irritated skin, or a cut, or repeated contact with intact skin may result in poisoning.

EYE CONTACT: IMMEDIATELY wash eyes with water for at least 15 minutes and get medical attention. Contact may cause eye injury.

INHALATION: IMMEDIATELY get away from spray mist. Exposure may cause irritation, nose bleeds and may lead to poisoning. Stop and check spray procedure. Follow Worker Safety Rules below

DIRECTIONS FOR USE

It is a violation of Federal law and may endanger the applicator or third parties to use this product without complying with all label directions and warnings.

READ ENTIRE LABEL USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

NOTE: Do Not Use Around Home Gardens, Schools, Recreational Parks, or Playgrounds.

Refer to Supplemental Pamphlet for Use Directions.

WORKER SAFETY RULES/REENTRY STATEMENTS

DO NOT get on skin, eyes or clothing.

DO NOT inhale spray mist.

WASH SPLASHES from skin and eyes immediately.

REMOVE and wash contaminated clothing.

WASH before eating, smoking and drinking.

WEAR full face shield, rubber gloves and apron and waterproof footwear when pouring concentrate or when exposure to concentrate is possible.

WEAR waterproof footwear and protective clothing when spraying outside of an enclosed cab or aircraft or when contacting vegetation with spray.

DO NOT enter treated areas without protective clothing until sprays have dried.

AVOID working in spray mist. If there is risk of exposure wear goggles and approved face mask capable of filtering spray droplets.

KEEP all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

IMPORTANT: The effect of swallowing Paraquat is far more severe than that which usually results from skin contact or inhalation of spray mist. No opportunity for mist or product to cause serious injury or death should arise when used in strict compliance with these rules but the opportunity may arise in case of gross violations so strictly follow all these rules as if your life depends on it.

ENVIRONMENTAL SAFETY CAUTIONS

WILDLIFE: This product is toxic to wildlife. Birds and other wildlife in treated areas should be kept away from treated areas.

DRIFT: COLONEL is a contact herbicide that kills all green plants under conditions involving possible drift to food, forage, or other plantings that might be rendered unfit for sale, use, or consumption. Do not apply when weather conditions are unfavorable. For aerial applicators use, do not apply during periods of thermal inversion.

CHEMICAL HAZARD: This product reacts with aluminum to produce a highly combustible gas mixture. Such gas could flash or explode, caused by open flame, spark, welder's torch, lighted cigarette, or other ignition source. Containers, spray tanks, nurse tanks, or such systems made of aluminum or aluminum alloy should not be used for extended (overnight) storage.

EQUIPMENT/CONTAINERS: Flush all spray equipment with water. This product is corrosive to aluminum. Aluminum spray equipment that are exposed to spray solution or spray drift should be flushed thoroughly after use.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

STORAGE: Store at temperatures above 32°F. Do not contaminate feed, food, or store next to feed or food, or transport in or on vehicles containing foodstuffs. Spill, leak, fire or exposure involving this material, call CHEMTREC.

PESTICIDE DISPOSAL: This product is acutely hazardous to aquatic life in water. Pesticide spray mixture, or residue is a violation of Federal law. If these wastes are not disposed of properly, they may be considered hazardous waste. According to label instructions, contact your State Pesticide or Environmental Control Agency representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Do not reuse containers. Puncture and dispose of in a sanitary landfill, or dispose of by other procedures approved by local authorities.

CONDITIONS OF SALE: 1. ICI Americas Inc. (ICIA) warrants that this material conforms to the label and is reasonably fit for use as directed hereon. ICIA neither makes nor represents to make, any other warranty of FITNESS or of MERCHANTABILITY, express or implied, concerning this material. 2. Critical and unforeseeable factors beyond ICIA's control prevent it from eliminating the use of chemicals. Such risks include, but are not limited to, damage to plants or crops, lack of complete control, and damage caused by drift to other plants or crops. The product is reasonably fit for the uses stated hereon and even though label directions require user acknowledgment and assume all risks and liability (except those assumed by ICIA) handling, storage and use of this material.



ICI Americas Inc.
Agricultural Chemicals Division
Wilmington, Delaware 19897

EPA
EPA

BEST AVAILABLE COPY

COLONEL HERBICIDE

Supplemental Pamphlet

**DIRECTIONS FOR USE
READ WORKER SAFETY RULES**

DANGER



POISON

ONE SWALLOW CAN KILL.

**SYMPTOMS ARE PROLONGED AND PAINFUL.
ONSET OF SYMPTOMS MAY BE DELAYED
FOR UP TO 3 DAYS AFTER SWALLOWING.
*Corrosive, causes eye and skin damage.
May Be Harmful or Fatal*
! Absorbed Through Skin or Inhaled.**

PELIGRO — PRECAUCION AL USUARIO:

Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED

IMMEDIATELY induce vomiting by inserting finger in throat. Administer fluids and induce further vomiting. Get to a hospital or physician fast. **PROMPT TREATMENT IS ESSENTIAL** and must be initiated before signs and symptoms of injury appear. Note to Physicians: Call ICI Americas Medical Emergency Information Center 800/327-8633 (Dial 1-800-F-A-S-T-M-E-D), at any hour to obtain toxicology and medical management consultation, a supply of bentonite clay, and paraquat analysis. Symptoms following ingestion may be delayed up to 3 days. To be effective, treatment for paraquat poisoning must begin **IMMEDIATELY**. Treatment consists of binding paraquat in the gut with suspensions of bentonite clay or charcoal and removal of paraquat from the blood by prolonged charcoal hemoperfusion or continuous hemodialysis.

SKIN CONTACT

IMMEDIATELY wash with soap and water. Remove and wash all contaminated clothing with soap and hot water before reuse. Prolonged contact will cause severe irritation. Contact with irritated skin, or a cut, or repeated contact with intact skin may result in poisoning.

EYE CONTACT

IMMEDIATELY wash eyes with water for at least 15 minutes. Get medical attention. Contact may cause eye injury.

INHALATION

IMMEDIATELY get away from spray mist. Exposure may irritate, nose bleeds and may lead to poisoning. Stop and spray procedure. Follow Worker Safety Rules.

**WASH AND DESTROY CONTAINER WHEN EMPTY
NEVER REUSE.**

**TO PREVENT ACCIDENTS,
NEVER PUT INTO FOOD, DRINK
OR OTHER CONTAINERS.**

DO NOT USE OR STORE IN OR AROUND THE HOME

**DO NOT POUR FROM ORIGINAL CONTAINER
EXCEPT FOR IMMEDIATE USE.**

KEEP OUT OF REACH OF CHILDREN

Active Ingredients:

Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride)

Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine

INERT INGREDIENTS

TOTAL

DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.
READ DANGER AND FIRST-AID TREATMENT ON INSIDE FRONT COVER AND WORKER SAFETY RULES.

NOTE: Do Not Use Around Home Gardens, Schools, Recreational Parks, or Playgrounds.

Always use a nonionic spreader surfactant approved for use with food crops and which contain at least 75% surface active ingredients.

Do not use dirty or muddy water for COLONEL dilution because COLONEL will be inactivated.

Do not combine COLONEL herbicide with liquid fertilizer solutions except as specified below.

COLONEL herbicide and COLONEL tank mixes may be applied in liquid nitrogen and/or complete liquid fertilizer solutions (follow label recommendations for crop involved) when 20 to 60 gals. of dilute solution are applied per acre in combination with 1 to 2 pts. of Spreader (nonionic) per 100 gals. Equipment must be adjusted and calibrated to obtain thorough coverage of undesirable vegetation. Inadequate coverage and/or the absence of Spreader (nonionic) will result in a severe reduction of COLONEL activity. Phosphate containing liquid fertilizer solutions will reduce the activity of COLONEL. When liquid fertilizer solutions containing phosphorus are used with COLONEL and a more rapid kill is desired, use the high COLONEL label rate.

DO NOT combine with suspension-type liquid fertilizers because the activity of COLONEL will be reduced.

PREPLANT OR PREEMERGENCE USES

PREPLANT OR PREEMERGENCE USE - For Kill or Emerged Annual Broadleaf Weeds and Grasses and for Top Kill and Suppression of Perennials - Apply when the weeds and grasses are succulent and growth is from 1" to 6" high (larger plants are less affected by this treatment). Note: To prevent injury to germinating crop seedlings, do not apply preplant or preemergence to soils lacking clay minerals, i.e., peat, muck, pure sand, artificial planting media.

COLONEL™ herbicide

CONSERVATION TILLAGE USES

COLONEL and COLONEL tank mixes may be applied in liquid nitrogen and/or complete liquid fertilizer solutions (follow label recommendations for crop involved) when 20 to 60 gals. of dilute solution are applied per acre in combination with 1 to 2 pts. of a nonionic surfactant per 100 gals. Equipment must be adjusted and calibrated to obtain thorough coverage of undesirable vegetation, inadequate coverage and/or the absence of surfactant will result in a severe reduction of COLONEL contact activity. Phosphate containing liquid fertilizer solutions will reduce the activity of COLONEL. When liquid fertilizer solutions containing phosphorus are used with COLONEL, and a more rapid kill is desired, use the high COLONEL label rate indicated by soil type.

CORN ONLY: Preplant/Preemergence Applications. For Kill of Existing Vegetation and Residual Weed Control Where Corn Will Be Planted Directly Into a Cover Crop, Established Sod, or in Previous Crop Residues. Broadcast 1 to 1½ gals. COLONEL in 20 to 60 gals. diluted spray per acre. Apply before, during, or after planting but before crop emergence. Refer to Table 1 for specific rate recommendations, limitations, and precautions. Add surfactant at 16 fl. oz. per 100 gals. diluted spray. Constant agitation at all times is recommended.

Table 1

BROADCAST RATES PER ACRE (Ground Application)

| <u>Soil</u> | <u>COLONEL Rate Per Acre</u> | <u>Notes</u> |
|---|------------------------------|--|
| Coarse: Sands, loamy sands and sandy loam | 1 gallon | On light, mild to strong alkaline, or all recently leveled soils in eastern CO, western KS, western NE, NM, OK Panhandle, western Texas, and eastern WY. |
| Medium: Silt and clay loams that are low in organic matter | 1 gallon + 24 oz. | Apply $\frac{1}{2}$ gallon of COLONEL in a tank mix with $1\frac{1}{2}$ pints of GRAMOXONE SUPER paraquat per acre. On other soils in these areas, apply rate in this table for broadleaf and grass control. |
| Fine: Silt and clay loams with medium to high organic matter, and clays | $1\frac{1}{2}$ gallons | |

LIMITATIONS & PRECAUTIONS: Use above recommendations where fields contain clean corn or soybean stubble, standing corn stalks or annual cover crop or stubble. Use the $1\frac{1}{2}$ gals. per acre rate if perennial cover crop or perennial stubble is present. Heavy stalk residues should be disked before spraying. Complete kill of alfalfa may require 2,4-D or similar hormone-type herbicide.

No-till corn is not recommended in fields infested with johnsongrass, bermudagrass, broomsedge, or dallisgrass.

Do not rotate to any crop except corn or sorghum until the following year, or injury may occur.

In the High Plains and intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum or when a crop of untreated corn or sorghum is to precede other rotational crops.

TANK MIX WITH LASSO

When used as recommended in Table 2, this tank mix controls many emerged annual weeds and suppresses many emerged perennial weeds. In addition, it will provide increased preemergence control of many broadleaf and grass weeds. Broadcast recommended rates of COLONEL and LASSO in 20 to 60 gals. of diluted spray per acre. Apply prior to, during, or after planting, but prior to crop emergence. Add a nonionic spreader at 16 fl.

oz. per 100 gals. of diluted spray. The addition of GRAMOXONE SUPER as indicated, may be necessary for adequate emerged weed control.

Table 2

BROADCAST APPLICATION RATES FOR TANK MIX WITH LASSO

| Soil Texture Group | 3% Organic Matter | | | 3% Organic Matter | | |
|--------------------------|-------------------|---------|-----------------|-------------------|---------|-----------------|
| | LASSO | COLONEL | GRAMOXONE SUPER | LASSO | COLONEL | GRAMOXONE SUPER |
| Coarse | 3.0-5 pts | 4 pts | 1 1/3 pts | 4-6 pts | 4 pts | 1 1/3 pts |
| Medium | 3.5-5 pts | 6 pts | 2/3 pt | 4-6 pts | 5 pts | 2/3 pt |
| Fine | 4.5-6 pts | 8 pts | - | 6-8 pts | 8 pts | - |

LIMITATIONS AND PRECAUTIONS: This tank mix may not control weeds greater than 6". As density of stubble, crop residue, or weeds increase, spray gallonage should be increased within recommended range for complete coverage. Add ORTHO X-77 Spreader (nonionic) at 16 fl. oz. per 100 gals. of diluted spray. Add COLONEL to the spray tank while agitating, then add LASSO, GRAMOXONE paraquat (if required) and surfactant (nonionic). Continue agitation during application. Refer to LASSO label for cautions and specific recommendations. Plant only corn, peanuts, sorghum or soybeans the year following use of this mixture.

TANK MIX WITH DUAL 8E

When used as recommended, in Table 3, this tank mix provides control of many emerged annual weeds and suppresses many emerged perennial weeds. In addition, it will provide increased preemergence control of many broadleaf and grass weeds.

Broadcast recommended rates of COLONEL and DUAL 8E in 20 to 60 gals. of diluted spray per acre. Apply prior to, during, or after planting, but prior to crop emergence. Add a nonionic surfactant at 16 fl. oz. per 100 gals. of diluted spray. The addition of GRAMOXONE SUPER as indicated, may be necessary for adequate emerged weed control.

Table 3

BROADCAST APPLICATION RATES FOR TANK MIX WITH DUAL 8E

| Soil Texture | 3% Organic Matter | | | 3% Organic Matter | | |
|-----------------|-------------------|---------|--------------------|-------------------|---------|--------------------|
| | DUAL 8E | COLONEL | GRAMOXONE SUPER | DUAL 8E | COLONEL | GRAMOXONE SUPER |
| Coarse | 1.5 pts | 2 qts | 1 pt | 1.5 pts | 2 qts | 1 pt |
| Medium | 2.0 pts | 3 qts | 2/3 pt | 2.0 pts | 3 qts | 2/3 pt |
| Fine | 2.0 pts | 4 qts | - | 2.5 pts | 4 qts | - |

Muck or Peat
(Soils with
20% organic
matter)

DO NOT USE

LIMITATIONS AND PRECAUTIONS: Refer to DUAL 8E label for precautions and specific use recommendations. The tank mix may not control emerged weeds greater than 6". As density of stubble, crop residue, or weeds increases, spray gallowage should be increased within recommended range for complete coverage. Use surfactant at 16 fl. oz. per 100 gals. of diluted spray. Add COLONEL to the spray tank while agitating. Then add DUAL, surfactant, AND GRAMOXONE SUPER paraquat if needed. Constant agitation is recommended at all times.

GRAIN SORGHUM: Preplant/Preemergence Application. For Desiccation and Residual Control of Annual Broadleaf Weeds and Grasses Where Sorghum Will Be Planted Directly Into Previous Crop Residues. Apply the recommended rate of COLONEL from Table 4 prior to, during, or after planting, but prior to crop emergence. Apply in 20-60 gals. of water per acre. Add a nonionic surfactant at the rate of 16-32 fl. oz. per 100 gals. of diluted spray. Water or nitrogen solutions may be used as a carrier. Add COLONEL to spray tank first, mixing thoroughly with carrier. Then add surfactant. Constant agitation is recommended at all times. This treatment will not control volunteer sorghum or shattercane which emerges after application.

Table 4

BROADCAST PRELANT/PREEMERGENCE APPLICATION RATES FOR SORGHUM

| <u>Soil Texture</u> | <u>Organic Matter</u> | <u>Broadcast Rate/A</u> |
|---------------------|-----------------------|-------------------------|
| Coarse | Any level | Do not use |
| Medium and Fine | Less than 1% | Do not use |
| | 1-1.5% | 3-4 quarts |
| | More than 1.5% | 4-4.5 quarts |

LIMITATIONS AND PRECAUTIONS: In case of planting failure, sorghum or corn may be replanted. Do not make a second broadcast application, or injury may occur. If originally applied in a band and sorghum or corn is replanted in untreated row middles, this product may be applied in a band to the second planting. The the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished. Under dry conditions, irrigation after application is recommended to move atrazine into the soil. Irrigation should not be started until at least 1 hour after application.

Do not apply preemergence in NM, OK, or TX, except in northeast OK and the TX Gulf Coast. Do not apply preplant in AL, AR, FL, GA, LA, MS, NC, NM, OK, SC, TN OR TX.

WORKER SAFETY RULES/ REENTRY STATEMENTS

USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

DO NOT get on skin, eyes or clothing.

DO NOT inhale spray mist.

WASH SPLASHES from skin and eyes immediately.

REMOVE and wash contaminated clothing.

WASH before eating, smoking and drinking.

WEAR full face shield, rubber gloves and apron and waterproof footwear when handling or mixing concentrate.

WEAR waterproof footwear and clothing when spraying or when contacting vegetation wet with spray.

DO NOT enter treated areas without protective clothing until sprays have dried.

AVOID working in spray mist. If there is risk of exposure, wear goggles and approved face mask capable of filtering spray droplets.

KEEP all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

IMPORTANT: The effect of swallowing *paraquat* is far more severe than that which usually results from skin contact or inhalation of spray mist. No opportunity for mist or product to cause serious injury or death should arise when used in strict compliance with these rules but the opportunity may arise in case of gross violations so strictly follow all these rules as if your life depends on it.

ENVIRONMENTAL SAFETY CAUTIONS

WILDLIFE

This product is toxic to wildlife. Birds and other wildlife in treated areas may be killed. Do not apply directly to water.

DRIFT

COLONEL Herbicide is a contact herbicide that kills green plant tissue. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift to untreated areas. For aerial applicators use, do not apply during thermal inversion to avoid drift.

CHEMICAL HAZARD

This product reacts with aluminum to produce hydrogen gas which may form a highly combustible gas mixture. Such gas may ignite or explode, causing serious personal injury, if ignited by flame, spark, welder's torch, lighted cigarette, or other heat source. Do not mix or store in containers, spray tanks, or such systems made of aluminum or having aluminum fittings. After dilution with water to spray concentration, aluminum systems made of, or containing aluminum parts, may be used but should not be used for extended (overnight) storage.

EQUIPMENT/CONTAINERS

Flush all spray equipment with water after use. *This product* is corrosive to aluminum. Aluminum spray equipment and aluminum aircraft structures exposed to spray solution or spray drift should be flushed thoroughly with water immediately after use.

1205/2

STORAGE AND DISPOSAL

PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

STORAGE

Store at temperatures above 32°F. Do not contaminate feed, foodstuffs or drinking water. Do not store next to feed or food, or transport in or on vehicles containing foodstuffs or feeds. For help with any spill, leak, fire or exposure involving this material, call CHEMTREC 800/424-9300.

PESTICIDE DISPOSAL

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

CONTAINER DISPOSAL

See Container Label For Container Disposal Directions.

CONDITIONS OF SALE: 1. ICI Americas Inc. (ICIA) warrants that this material conforms to the chemical description on the label and is reasonably fit for use as directed hereon. ICIA neither makes, nor authorizes any agent or representative to make, any other warranty of FITNESS or MERCHANTABILITY, guarantee or representation, express or implied, concerning this material.

2. Critical and unforeseeable factors beyond ICIA's control prevent it from eliminating all risks in connection with the use of chemicals. Such risks include, but are not limited to, damage to plants and crops to which the material is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the uses stated hereon and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by ICIA under 1 above) resulting from handling, storage and use of this material.