

made each year until yellow nutsedge or Canada thistle is eliminated or reaches a level of infestation where neither weed species is a problem. If regrowth of yellow nutsedge or Canada thistle occurs following the last application, cultivate once. When applied postemergence to the weeds, 1 gal. of emulsifiable crop oil should be added per acre. For control of yellow nutsedge and Canada thistle several alternative methods of use are available. These methods are listed in order of preference below. If other weed species including annual grasses are also expected, use an alternative method that includes a preplant or preemergence treatment plus a postemergence combination with emulsifiable oil or apply all of this product preplant or preemergence.

- (1) Broadcast 2.5 lbs. plus 1 gal. of emulsifiable oil per acre after the crop and yellow nutsedge and/or Canada thistle plants have emerged, but before yellow nutsedge plants reach a height of 3 inches or Canada thistle plants reach a height of 6 inches. Follow with a second application of 2.5 lbs. plus 1 gal. of oil per acre 10-20 days (but prior to lay-by, 20-30 inches) after the initial application has been made.
- (2) Broadcast 2.5 lbs. per acre preplant. Follow with an application of 2.5 lbs. plus 1 gal. of oil per acre after the corn and weeds emerge, but before nutsedge plants reach a height of 3 inches (for nutsedge control only).
- (3) Broadcast 2.5 lbs. per acre during or shortly after planting, but prior to crop or weed emergence. Follow with an application of 2.5 lbs. plus 1 gal. of oil per acre after the corn and weeds emerge, but before yellow nutsedge plants reach a height of 3 inches or Canada thistle plants reach a height of 6 inches.
- (4) Broadcast 5 lbs. plus 1 gal. of oil per acre after the crop has emerged but prior to lay-by (20-30 inches) and after yellow nutsedge and Canada thistle plants emerge, but before nutsedge reaches a height of 3 inches or Canada thistle is more than 6 inches tall.
- (5) Broadcast 5 lbs. per acre preplant (for yellow nutsedge control only).
- (6) Broadcast 5 lbs. per acre during or shortly after planting, but prior to crop or weed emergence (for yellow nutsedge control only).

Note: Oil should not be used when corn is wet or under stress, especially when using 5 lbs. of this product per acre. See precaution section under Postemergence Applications with Emulsifiable Oil in Water or corn for additional directions.

For quackgrass control on land going into corn production: Split application. Broadcast 2.5 lbs. per acre in the fall or spring and plow 1-3 weeks later. Broadcast a second application at the rate of 2.5 lbs. per acre in the spring before, during, or after planting, but before weeds are 1.5 inches high. This split application will control both quackgrass and most annual broadleaf and grass weeds.

Single application: Broadcast 3.75-5 lbs. per acre in the fall or spring. Plow 1-3 weeks after application.

Tank Mixtures On Corn

Paraquat CL: For control of existing vegetation and residual control where corn will be planted directly into a cover crop established on previous crop residues. Broadcast 2.5-3.75 lbs. of this product and 1-2 pts. Paraquat CL per acre in 20-30 gals. of water per acre. Add 8 oz. of a nonionic surfactant per 100 gals. of diluted spray. Add this product to spray tank first and thoroughly mix with water. Add the Paraquat CL and surfactant last.

Refer to the Paraquat CL label for further directions, limitations, and cautions.

Alachlor 4EC: Use as tank mixture with alachlor 4EC for the control of many annual broadleaf and grass weeds in corn (field and silage corn only) including annual morningglory, barnyardgrass, black nightshade, *Bracharia*, velvetleaf, carpetweed, cocklebur, crabgrass, fall panicum, Florida pusley, giant foxtail, green foxtail, yellow foxtail, goosegrass, lambsquarters, pigweed, purslane, mustard, common ragweed, smartweed, and witchgrass.

Make applications at the rates indicated in Table 2. For preplant applications, apply within 7 days of planting and incorporate to a depth of 2-3 inches. For preemergence applications, apply to the soil surface after planting, but before the crop or weeds emerge. For postemergence treatments, make applications until weeds reach the two-leaf stage and the corn is no more than 12 inches tall.

Table 2

Tank Mixtures With Alachlor 4EC On Corn (Field and Silage Only)

Soil Texture	Broadcast Rate Per Acre			
	Less than 3% organic matter		More than 3% organic matter	
	This Product (lbs. A)	alachlor 4EC (qts. A)	This Product (lbs. A)	alachlor 4EC (qts. A)
Light sandy soil	1.25	1.5	1.25	1.5
Silt loam soil	1.25-1.5	1.5-1.75	1.5-1.75	1.75-2
Heavy clay soil	1.5-2	2-2.5	1.5-2	2-2.5

Note: Apply in a minimum of 20 gals. of water per acre. Nonpressure fluid fertilizer may replace all or part of the water used as a carrier for applications applied to the soil surface before crop emergence. Add this product to the spray tank first and thoroughly mix with water. Add the alachlor last.

Refer to the alachlor 4EC label for further directions, limitations, and cautions.

Propachlor 65W: Use as a tank mixture with propachlor 65W for control of many annual broadleaf and grass weeds in corn (field and silage and sweet corn only) including annual morningglory, annual ryegrass, barnyardgrass (watergrass), velvetleaf, carpetweed, cocklebur, crabgrass, fall panicum, Florida pusley, giant foxtail, green foxtail, yellow foxtail, goosegrass, groundsel, jimsonweed, lambsquarters, mustard, nightshade, pigweed, purslane, ragweed, smartweed, and sunflower. Broadcast 1.3-2.0 lbs. of this product plus 3.8-6.0 lbs. of propachlor 65W per acre on the soil surface any time from immediately after planting until broadleaves and grasses reach the two-leaf stage. Use the lower rates on coarse-textured soils low in organic matter. Use the higher rates on fine-textured soils high in organic matter.

A minimum of 1.75 lbs. per acre of this product in the tank mixture will give better control of annual morningglory, velvetleaf, cocklebur, and sunflower.

Apply in a minimum of 20 gals. of water per acre. Nonpressure fluid fertilizers may replace all or part of the water used as a carrier for applications applied to the soil surface

before crop and weeds emerge. Add this product to the spray tank first and thoroughly mix with water. Cut the propachlor 65W bag and fill with water to the neck. Grasp the neck of the bag firmly, shake vigorously, and add to the spray tank.

Refer to propachlor 65W label for further directions, limitations, and cautions.

Princep 80W: Use as a tank mixture with Princep for the control of many annual broadleaf and grass weeds including fall panicum, crabgrass, foxtail, velvetleaf, carpetweed, morningglory, lambsquarters, pigweed, and ragweed. This mixture may be applied either before planting, at planting, or after planting, but before crop and weeds emerge. Apply in accordance with the rates given in Table 3.

Preplant Applications With Princep 80W: Apply as a broadcast treatment in the spring after plowing at the rates indicated in Table 3. Application may be made during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. Best results have generally been obtained when the herbicides are applied within two weeks prior to planting.

Preemergence Applications With Princep 80W: Apply during or shortly after planting, but prior to crop and weed emergence at the rates indicated in Table 3.

Refer to the Princep 80W label for further directions, limitations, and cautions.

Table 3
Tank Mixtures With Princep 80W

Soil Texture	Broadcast in 20-40 gals. of water per acre	
	This Product	Princep 80W
Coarse-textured soils: sand, loamy sand, and sandy loam	1.25 lbs.	1.25 lbs.
Medium-textured soils: silt and clay loam that are low in organic matter	1.5 lbs.	1.5 lbs.
Fine-textured soils: silt and clay loam with medium to high organic matter and clay (including the dark prairie soils of the Corn Belt)	1.8 lbs.	1.8 lbs.

Should weeds develop, a shallow cultivation will generally result in better weed control.

Precautions For All Applications to Corn: (1) Do not apply more than 5 lbs. per acre of this product to corn in any one year. (2) Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of the rate used. (3) Do not graze treated area or feed treated forage to livestock for 21 days following application.

For postemergence applications with emulsifiable oil, see additional precautions under that section of this label.

Crop Rotation Suggestions

- (1) Land treated with this product should not be planted to any crop except corn or sorghum until the following year or injury may occur.
- (2) If applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur.
- (3) If used at a broadcast rate higher than 3.75 lbs. per acre (or comparable rates in a band application), a crop of untreated corn or sorghum should precede the next rotational crop.
- (4) 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 a crop of untreated corn or sorghum is to precede other rotational crops.
- (5) In western Minnesota and eastern parts of the Dakotas, Nebraska, and Kansas, corn or sorghum treated with this product should not be followed with soybeans if the broadcast rate applied was more than 2.5 lbs. per acre (or comparable rate in a band) or injury may occur.
- (6) Injury may occur to soybeans planted in north central Iowa and south central Minnesota the year following an application of this product on Harps, Canisteo, Storden, or other soils having a calcareous surface layer.
- (7) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year following application or injury may occur.

Sorghum and Sorghum-sudan Hybrids (Grain and Forage Types)

Apply either before planting, at planting, or after planting as indicated below (see weed claims under Corn).

Preplant (Broadleaf and Grass Control): Broadcast in the spring after plowing at the rate indicated in Table 4. Application may be made before, during, or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. Best results have been obtained when applied within two weeks prior to planting.

Preemergence (Broadleaf and Grass Control): Apply during or shortly after planting, but prior to weed or crop emergence at the rate indicated in Table 4.

Table 4
Preplant and Preemergence Applications¹
For Broadleaf and Grass Weed Control in Sorghum

Soil Texture	Organic Matter	Broadcast Rate Acre
Coarse-textured soils: sand, loamy sand, sandy loam and sandy clay loam	any level	DO NOT USE (except for preemergence use on bedded sorghum in Arizona and California as indicated below)
Medium and Fine-textured soils: silt loam, clay loam, and clay	less than 1%	2-2.5 lbs.
	1-1.5% more than 1.5%	2.5-3 lbs.

¹ Do not apply preplant to sorghum grown in Mex., Okla., Tex., Ariz., Cal., Tex., Miss., Ala., Ga., Fla., S. Car., and N. Car. or preemergence to sorghum grown in N. Mex., Texas, and Okla. except in northeast Okla. and the Texas Gulf Coast.

In case of planting failures, sorghum can be replanted into soil previously treated with this product. Do not make a second broadcast application or injury may occur. If applied in a band and sorghum is replanted in the untreated row middle, this product can be applied in a band 15-18 inches second planting.

Preemergence Broadleaf Weed Control in Furrow Irrigated Bedded Sorghum (Arizona and California only): For preemergence control of many broadleaf weeds including groundcherry, lambsquarters, morningglory, mustard, pigweed, and purslane. Broadcast 1-1.5 lbs. per acre. Use the lower rate on coarse-textured soils and soils low in organic matter and use the higher rate on fine-textured soils and soils high in organic matter. Make application after bed preparation, during or after planting, but before sorghum and weeds have emerged and before the first furrow irrigation. Several regular irrigations should follow the application, making sure that all soil is thoroughly wet.

Precautions for Preemergence Applications to Furrow Irrigated Bedded Sorghum Grown in Arizona and California: To avoid possible sorghum injury, do not use on sand or loamy sand soils or on sorghum planted in the furrow. Additionally, applications made to sorghum growing on alkali soils or where cuts, fills, or erions have exposed calcareous or alkali subsoils may result in crop injury. In case of crop failure, do not replant sorghum for eight months following application. Corn may be planted more freely.

Postemergence Broadleaf and Grass Weed Control: Apply before weeds exceed 1.5 inches in height at the rate indicated in Table 5. Applications may be made up to close-in.

Table 5
Postemergence Broadleaf and Grass Weed Control in Sorghum

Soil Texture	Minimum Height of Sorghum at Treatment	Broadcast Rate / Acre
Sand or loamy sand		DO NOT USE
Sandy loam		See directions for broadleaf weed control below
Silt loam to sandy clay loam	Completely emerged	2.5-3 lbs.
Clay and Pullman clay soils	At least 6 inches high	2.5-3 lbs.
Silty clay loams and finer texture soils	Completely emerged	3.75 lbs.

Postemergence Broadleaf Weed Control with Emulsifiable Oil in Water: Broadcast 1.5 lbs. per acre for control of many broadleaf weeds including annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed, and wild buckwheat. Application should be made before pigweed and lambsquarters reach six inches in height and before all other weeds reach four inches in height. In Texas, New Mexico, Oklahoma, western Kansas, Colorado, and the desert regions of California and Arizona, apply when sorghum is 6-10 inches in height, but before it reaches the boot stage. In all other areas, apply after sorghum reaches the three-leaf stage. Add emulsifiable oil at the rate of 1 gal. per acre for ground applications and one-half gal. per acre for aerial applications. A cultivation may be necessary if all weeds are not controlled or if regrowth of weeds occurs.

Precautions for Applications With Emulsifiable Oil in Water to Sorghum: See precautions under Emulsifiable Oil in Water Applications to Corn.

Postemergence Broadleaf Weed Control with Surfactant (Oklahoma, New Mexico, Texas, Western Kansas, Colorado, and Desert Regions of Arizona and California only): Broadcast 1.5 lbs. plus .75-1.5 pts. of surfactant per acre after sorghum reaches 6 inches in height, but before weeds reach 1.5 inches in height. Apply only on sandy loam and finer textured soils.

Precautions for all Applications to Sorghum: (1) Heavy rains immediately following application tend to result in excessive concentrations of herbicide in seed furrow resulting in possible crop injury. Applications to furrow-planted sorghum should not be made until furrows are leveled (plowed-in). Deep planter marks or seed furrows should also be leveled before application. (2) Application made to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soils may result in crop injury. (3) Do not graze or feed forage from treated areas for 21 days following application. (4) Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of rate used.

For applications to furrow irrigated bedded sorghum grown in Arizona and California and for postemergence applications with emulsifiable oil in water, see additional precautions under those sections of this label.

Crop Rotation Suggestions: See Rotational Crop recommendations under Corn.

Chemical Fallow

Summer Fallow-Winter Wheat (Pacific Northwest Only): To control downy bromegrass (cheatgrass) and mustard as well as volunteer grain.

One-year fallow program: Broadcast one-half lb. in combination with dalapon (see dalapon product label for rate). Apply to stubble following fall rains after volunteer grain has begun growth (but not later than January 1). If weeds germinate in the spring, they should be controlled with stubble mulch tillage.

Do not make a second application. Do not plant spring cereals, follow only with winter wheat.

Two-year fallow program: Broadcast 2 lbs. in combination with dalapon as indicated above for one-year program. Do not plant any crop for 2 years following application and then only to winter wheat.

Precautions Avoid overlapping. Treat only soils classified as silt loam, loam, clay loam or clay. Do not treat sandy soil. Do not graze livestock on growing wheat within 6 months after application.

Wheat-Sorghum-Fallow. To control annual broadleaf and grass weeds following wheat harvest and continuing into the following sorghum crop when grown under minimum tillage.

Broadcast 3.75 lbs. to the wheat stubble immediately following wheat harvest. If weeds are present, remove them with a sweep plow or other suitable implement after application.

Note: (1) Sorghum should be planted into the wheat stubble the spring following treatment with minimum disturbance of the soil. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting. (2) Do not apply following sorghum harvest.

Precautions: (1) Use only on a silt loam or finer-textured soil. (2) Wheat-sorghum-fallow cropping sequence must be followed. (3) Do not graze treated area or feed treated forage to livestock. (4) Do not plant treated area to any crop other than those on this label within 18 months following treatment.

Wheat-Fallow-Winter Wheat (for Colorado, Kansas, Nebraska, South Dakota, Wyoming, and eastern Montana, south of State Route 200 and east of U.S. Route 191 and a line from Big Timber to Cooke City.)

This product gives preemergence control of cheatgrass (downy brome, chess), Kochia, mustard, pigweed, Russian thistle, wild lettuce, wild sunflower, and suppresses volunteer wheat during the fallow period of a wheat-fallow-wheat rotation.

Apply 1.25 lbs. of this product in 10-40 gals. of water per acre for ground application, or in a minimum of 5 gals. of water per acre for aerial application, on all soils except those listed under Precautions.

Apply to stubble ground as soon as possible after wheat harvest for maximum weed control but before October 15. Make only one application during the same fallow period. Use tillage or an approved contact herbicide before or after treatment with this product to control weeds present at the time of application and those which may escape during the fallow period. Till before planting to provide a good seedbed. Plant to depth of soil moisture, a minimum of 2 inches deep, 12 months or more after application of this product.

Precautions: (1) Do not treat sand, clay, or clay loam soils. (2) Do not treat eroded hill sides, caliche and rocky outcroppings, or exposed calcareous subsoil. (3) Do not treat soils of the Rosebud and Canyon Series in western Nebraska and adjoining counties in Wyoming and Colorado. (4) Do not treat soils having a calcareous surface layer. (5) Avoid overlapping in spraying.

Note: Do not graze livestock on wheat within 6 months after application.

Rangeland

This product controls certain weeds, including cheatgrass (downy brome, chess), tumble mustard, sagewort and annual or common broomweed. Use the lower rate on areas where cheatgrass is the major problem weed, use the higher rate for control of other weeds.

For ground applications, use a minimum of 10 gals. of water per acre.

For aerial applications, use a minimum of 5 gals. of water per acre.

See application procedures for additional information.

Establishment of Perennial Range Grasses (California, Idaho, Nevada, Oregon, Utah, Washington)

Apply 1-1.25 lbs. per acre in the fall. Perennial range grass may be seeded when rain begins the next fall following treatment. Seed should be planted in deep furrows such as those made by a deep furrow rangeland drill. Treated areas may be grazed 7 months after seeding. However, to provide sufficient time for establishment of desirable range grasses, it is recommended that treated areas not be grazed until the fall following seeding.

Renovation of Existing Stands of Perennial Range Grasses

Fall treatment in Central Great Plains (Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Wyoming). Apply 1-1.25 lbs. per acre in late fall.

Spring treatment in Southern Great Plains (Texas, Oklahoma). Apply 1.25 lbs. per acre in early spring.

Do not apply to crested and intermediate wheatgrasses. Do not cut or feed range grass hay. Do not graze treated areas within 7 months following fall application or 3 months following spring applications. Make only one treatment per year.

Perennial Ryegrass Grown for Seed (Pacific Northwest Only)

For the control of annual ryegrass and rattail fescue. Broadcast 1.5 lbs. in 15 gals. or more water per acre after first fall rains.

Precautions: (1) Apply only to perennial ryegrass stands from which a seed crop has been harvested. (2) Do not apply to ryegrass more than 2 years in succession. (3) Do not graze treated land within 10 days of application. (4) Do not plant treated land to other crops for at least 16 months.

Sugarcane

For control of many nonrhizomatous weeds, including crabgrass, junglerice, wiregrass, foxtail, amaranths, Florida paintbrush, and fireweed. Broadcast 2.5-5 lbs. in 20-50 gals. of water for adequate coverage of the soil surface at time of planting or ratooning, but before the cane emerges. One additional application may be made over the cane as it emerges, and two additional applications may be made interline after emergence, as a directed spray.

For control of emerged pelitory (artillery) weed (Florida only). Apply 5-7.5 lb. per acre in at least 40 gals. of water per acre as a directed spray. Add 2 qts. of surfactant for each 50 gals. of spray and be sure weed foliage is thoroughly covered.

Precautions: (1) Do not apply after "close-in." (2) Do not apply more than 12.5 lbs. per acre to any one crop of cane.

Turf Grasses For Sod Production (St. Augustine, Centipede, and Zoysia Grass)

Broadcast 2.5-5 lbs. per acre according to soil type as indicated below.

Muck or Peat	5 lbs	Old beds: Within 2 days after lifting of sod
		New beds: 3-4 days after sprigging or plugging
Sandy Soil	2.5 lbs	Old beds: Within 2 days after lifting of sod
		New beds: 7-10 days after sprigging or plugging

Apply additional 2.5 lbs. on muck or peat or 1.25 lbs. per acre on sandy soil, if weed growth recurs.

Precautions: (1) Do not apply within 30 days of cutting or lifting. (2) Do not apply in combination with surfactants or other spray additives, as these combinations may cause injury. (3) Do not use north of North Carolina.

Macadamia Nuts

For preemergence control of many broadleaf and grass weeds including crabgrass, foxtail, wiregrass, Florida paintbrush, spanishneedles, and fireweed.

Broadcast 2.5-5 lbs. in 50 gals. of water per acre before harvest and just prior to weed emergence. Repeat as necessary. Do not spray when nuts are on the ground during the harvest period.

Do not make aerial applications.

Pineapple

For the control of purslane, spanishneedles, annual grasses, annual bindweed, ageratum, amaranth, rattlepod, Florida paintbrush, fireweed, spurge, indigo, and papalo. Make an initial application of up to 8 lbs. per acre as a blanket spray immediately after planting or following plant crop harvest. Make additional blanket or interspace applications of up to 2 lbs. per acre at 1-2 month intervals as needed, prior to differentiation. Applications should be made in 20-40 gals. of water per acre to assure thorough coverage.

Precautions: (1) Do not apply more than 37.5 lbs. per cycle. (2) Do not apply within 45 days of fruit harvest or forage harvest if forage is to be fed to livestock. (3) Repeated monthly applications to plant foliage may slow plant growth and delay fruiting.

Douglas Fir, Grand Fir, Noble Fir, White Fir, Lodgepole Pine, Ponderosa Pine, and Scotch Pine (Pacific Northwest—west of Cascades only)

Annual broadleaf and grass weed control. Broadcast 2.5-5 lbs. per acre. Apply between fall and early spring while trees are dormant or soon after transplanting and before weeds are 1.5 inches high. Make application in 20-40 gals. of water per acre.

Quackgrass control. Broadcast 5 lbs. per acre, as listed above for annual broadleaf and grass weed control. Apply in fall or early spring while trees are dormant and before weed seedlings are more than 1.5 inches high.

Precautions: (1) Do not graze treated areas. (2) Do not apply to seedbeds. (3) Do not make more than one application per year.

Nonselective Weed Control on Noncrop Land

Apply before or soon after weeds begin growth. Postemergence applications should be made when weeds are young and actively growing. Use the higher rates on fine clay and muck soils.

This product can be used to provide long-term weed control on industrial sites, highway medians and shoulders, railroad rights-of-way, lumberyards, petroleum tank farms, and in noncrop areas on farms, such as around buildings, equipment and fuel storage areas, along fences, and lanes.

Use sufficient water to assure thorough coverage. Use at least 1 gal. of water for each pound of product, more if practical. Mechanical bypass or jet agitation is necessary to keep this product in suspension during application.

To control many annual broadleaf and grass weeds (including barnyardgrass, cheatgrass, crabgrass, lambsquarters, foxtail, ragweed, puncturevine, and turkey mullein). Broadcast 6-12.5 lbs. per acre.

To control hard-to-kill annual and many perennial broadleaf and grass weeds (including bluegrass, burdock, Canada thistle, dogfennel, orchardgrass, plantain, quackgrass, purpletop, redtop, and smooth brome). Broadcast 12.5-25 lbs. per acre.

To control hard-to-kill biennial and perennial weeds (including bull thistle and sowthistle). Broadcast 25-50 lbs. per acre.

For longer residual control in regions of high rainfall and a long growing season. Broadcast 25-50 lbs. per acre.

For small areas, 4.5 oz. per 1,000 sq. ft. is equivalent to 12.5 lbs. per acre.

Caution

Keep out of reach of children.

Harmful if swallowed. Avoid contact with eyes, prolonged contact with skin, inhalation of dust, and contamination of food and feed.

Do not contaminate domestic or irrigation water supplies or lakes, streams, or ponds.

Do not reuse container. Destroy when empty. AAtrex® trademark of CIBA-GEIGY for atrazine. Princep® trademark of CIBA-GEIGY for simazine.

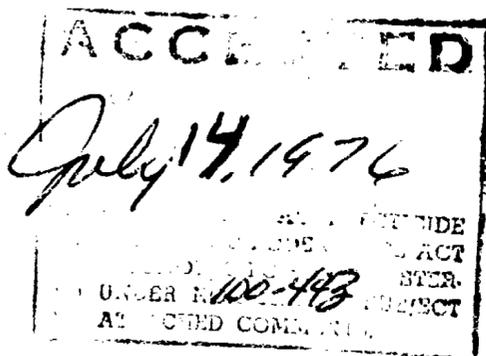
Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27409
CGA 7L29E

Pramitol®

Controls johnsongrass,
bindweed, and other
hard-to-kill weeds

25E

Herbicide



For weed control on
industrial sites, noncrop
areas around-the-farm,
and for use in
and under asphalt

**30
Gallons**
U.S. Standard Measure

Active Ingredient:
Prometon: 2,4-bis(isopro-
pylamino)-6-methoxy-s-
triazine 25%
Inert Ingredients: 75%
Total: 100%

Pramitol 25E contains
2 lbs. prometon per gal.

Caution:

Keep out of reach of
children.

See additional caution
statements left of
container seam.

EPA Est. No. 100-AL-1
EPA Reg. No. 100-443-AA
Control No. 06750

Bare ground weed control

around

buildings

storage areas

fences

pumps

machinery

fuel tanks

drainage ditch banks

recreational areas

roadways

guard rails

airports

military installations

highway medians

pipelines

railroads

lumberyards

industrial sites

rights-of-way

...or similar areas

See directions for use on panel at right.

CIBA-GEIGY

Pramitol 25E

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire **Directions for Use** and the **Conditions of Sale and Warranty** before using this product.

Conditions of Sale and Warranty

The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 CIBA-GEIGY or the Seller. All such risks shall be assumed by the Buyer.

CIBA-GEIGY warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions for Use**, subject to the inherent risks referred to above.

CIBA-GEIGY makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall CIBA-GEIGY or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. CIBA-GEIGY and the Seller offer this product and the Buyer and user accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of CIBA-GEIGY.

General Information

Pramitol 25E is a nonselective herbicide that can be applied in water or oil before or after plant growth begins. Although

Pramitol 25E has considerable activity through foliar contact, much of its activity is through roots; therefore, its effectiveness is dependent on rainfall to move it into the root zone. Very dry soil conditions and lack of sufficient rainfall may result in poor weed control.

Use only in areas where complete control of all vegetation is desired, such as industrial sites, rights-of-way, lumberyards, petroleum tank farms, around farm buildings, along fence lines, etc. When applied to the soil, this product usually inhibits plant growth for a year or more. It should not be used on land to be cropped, or near adjacent desirable trees, shrubs or plants or injury may occur.

It is generally noncorrosive to equipment but may cause swelling or more rapid deterioration of hoses and fittings containing natural rubber.

Directions for Use

Industrial Sites and Noncrop Areas

Pramitol 25E can be applied prior to or up to 3 months after weed emergence. Application rates vary from 5-30 gals. of Pramitol 25E per acre, depending on climatic conditions, soil type, the weeds present, and the stage of growth of the weeds. In the following rate recommendations, the higher rates are intended for use on heavier soils where weed growth is heavy, and where rainfall is expected to be relatively high. The higher rates should also be used where longer residual control is desired in regions with a long growing season.

For best results, apply Pramitol 25E prior to weed emergence or when weeds are young and actively growing.

For control of annual and susceptible perennial weeds (such as downy brome grass, oatgrass, goosegrass, quackgrass, puncture vine, goldenrod, and plantain): Broadcast 5-7½ gals. Pramitol 25E in 50-100 gals. of water per acre. For small areas, apply

1-1½ pts. Pramitol 25E per 1,000 sq. ft. in sufficient water to give thorough and uniform coverage.

For control of hard-to-kill perennial weeds and grasses (such as johnsongrass, bindweed, and wild carrot): Broadcast 20-30 gals. Pramitol 25E in 50-100 gals. of water per acre. For small areas, use 4-5½ pts. Pramitol 25E per 1,000 sq. ft. in sufficient water to give thorough and uniform coverage.

For faster top-kill of existing vegetation, apply Pramitol 25E in diesel oil, fuel oil, or weed oil. Use oils at rates of 100-200 gals. per acre. Tall dense vegetation such as johnsongrass will generally require 150 or more gals. of oil per acre for thorough coverage.

Asphalt Pavement

Pramitol 25E may be used to extend the useful life of asphalt pavement by preventing weeds from emerging through it. Pramitol 25E may be applied to the ground before laying asphalt, or it may be mixed with cutback asphalts.

Pramitol 25E should be used only where the area to be treated has been prepared according to good construction practices. If rhizomes, tubers, or other vegetative parts are present in the site, they should be removed by scalping with a grader blade. Recompaction of the site following disking or plowing will allow good penetration of Pramitol 25E, and will help to ensure proper asphalt curing and good weed control.

Pramitol 25E will not control woody vegetation such as small trees, brush, or woody vines. Roots of such species should be grubbed and removed from the site prior to application.

Under Asphalt: Pramitol 25E may be applied to the ground before laying rapid, medium or slow curing asphalt coatings such as those used on parking lots, highway should-

ers and median strips, roadways and other industrial sites. Pramitol 25E should be applied just prior to the laying of the asphalt coating to prevent possible lateral movement of the herbicide by rainfall or other mechanical means. Sprayers should be equipped to provide continuous agitation of the spray mixture during application to ensure application of a uniform spray emulsion.

Apply Pramitol 25E uniformly at the rate of 20-25 gals. per acre (0.53-0.66 fl. oz. per sq. yd.) in a minimum of 100 gals. of water. Use the lower rate to control annual and susceptible perennial weeds such as downy brome grass, oatgrass, goosegrass, quackgrass, puncturevine, goldenrod, and plantain. Use the higher rate to control hard-to-kill perennial weeds and grasses such as johnsongrass, bindweed, and wild carrot.

Precaution: Do not use Pramitol 25E under asphalt coatings less than 3 inches thick.

Mixes with Cutback Asphalt: Pramitol 25E may be mixed with standard and special cutback asphalts (such as RC, MC, and SC) for weed control in areas being stabilized, such as highway shoulders, highway median strips, under highway fences and guard rails, along airport runways and lights, soil and small stone aggregates on shoulders and cracked asphalt surfaces being resurfaced.

Pramitol 25E should be simultaneously mixed with the cutback asphalt as it is being pumped into the applicator or transport truck to assure a homogeneous mix. Temperatures in the applicator or transport truck should not exceed 170°F.

Pramitol 25E should be used at the rate of 0.53-0.80 fl. oz. per sq. yd. (equivalent to 20-30 gals. /A of Pramitol 25E). Use the lower rate on ordinary weed and grass complexes such as dallisgrass, King Ranch bluestem, knotroot, bristlegrass, and the higher rate

where johnsongrass, bermudagrass, or other deep-rooted perennials are present.

In arid areas where deep-rooted perennials are a problem, best results can be obtained by making the application from mid-summer through late fall or prior to the rainy season.

Precautions: 1) Do not apply cutback asphalt mixtures containing Pramitol 25E to soil saturated with water. The condition of the soil should be favorable for penetration or proper asphalt curing may be affected. 2) Do not apply Pramitol 25E with asphalt emulsions such as SS.

Caution

Keep out of reach of children.

Harmful if swallowed. Avoid contact with eyes and skin. In case of skin contact, wash with soap and water. Avoid inhalation of spray mist. Avoid contamination of food and feed.

Do not contaminate water used for irrigation or domestic purposes.

Do not contaminate water by cleaning of equipment, or disposal of wastes. Apply this product only as specified on this label.

Do not use for weed control in greenhouses.

Reseal container and offer for reconditioning, or triple rinse or equivalent and offer for recycling, reconditioning, or disposal in approved land fill, or bury in a safe place.

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

Store at temperatures above 32°F.

Pramitol® trademark of CIBA-GEIGY for prometon
U.S. Patent No. 2,909,420

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27409
CGA-8L9H