



SPECIMEN LABEL
REDUCED TO 52%

ACCEPTED
EPA 464-279
464-279

ESTERON* 76 BE HERBICIDE

ACTIVE INGREDIENT:
2,4-Dichlorophenoxyacetic Acid, Butyl Esters . . . 79.2%
INERT INGREDIENTS: 20.8%
2,4-D Acid Equivalent 63.2% — 6 pounds per gallon
E.P.A. Registration No. 464-279-ZA E.P.A. Est. 464-MI-1

AGRICULTURAL CHEMICAL
Do Not Ship or Store with Food, Feeds, or Clothing
PRECAUCION AL USUARIO: Si usted no lee inglés, no use este producto hasta que le expliquen lo hayo sido explicado en español.
TRANSLATION: (TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

Contains Butyl Esters of 2,4-D • 2,4-D Acid Equivalent: 6 pounds per gallon

CAUTION
KEEP OUT OF REACH OF CHILDREN
HARMFUL IF SWALLOWED
MAY CAUSE IRRITATION
Avoid Contact with Eyes, Skin and Clothing

30 GAL/113.5 L

THE DOW CHEMICAL COMPANY

AND SUBSIDIARIES

MIDLAND, MICHIGAN 48640, USA ZURICH, SWITZERLAND HONG KONG, BCC
CORAL GABLES, FLORIDA 33134, USA SARNIA, ONTARIO, CANADA

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RECEIVED
20 JAN 1975
EPA 464-279

86-1059 PRINTED IN U.S.A. IN DECEMBER, 1974

REPLACES SPECIMEN LABEL 86-1059 PRINTED IN NOVEMBER, 1972

REVISIONS INCLUDE: (1) EPA ESTABLISHMENT NUMBER ADDED
(2) AGRICULTURAL CHEMICAL SHIPPING AND STORAGE PRECAUTION
ADDED (3) SPANISH PRECAUTION ADDED

ESTERON* 76 BE HERBICIDE

For the Control of Many Broadleaf Weeds, Herbaceous Perennials and Woody Plants Susceptible to 2,4-D in Grass Pastures, Certain Crops and Non-Crop Areas.

USE DIRECTIONS

Use ESTERON 76 BE herbicide to control bitterweed, craton, dandelion, docks, galinsoga, henbit, Kochia, lambquarters, marshelder, mustards, peppergrass, plantains, ragweed, shepherds-purse, thistles, vetch, wild radish, and many other broadleaf weeds, without injury to most established grasses; also for control of 2,4-D susceptible woody plants such as coastal sage, sagesage, elderberry, hazel, locust, poison oak, sumac and willow. Use in small grains, corn, sorghum, grass seed crops, pastures, rangeland and in non-crop areas.

Apply ESTERON 76 BE as a water or oil spray during warm weather when weeds or brush are actively growing. Application under drought conditions often will give poor results. Use low spray pressure to minimize spray drift. On cropland and along roadsides, do not exceed 20 psi pressure. Apply enough spray volume to provide uniform coverage of weeds and brush, usually 5 to 20 gallons per acre by ground equipment and 3 to 5 gallons by aircraft. Higher gallonage may be used if desired to improve spray coverage and to reduce the hazard from spray drift.

Generally, the lower dosages recommended on this label will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. For crop uses, do not mix with oil or other adjuvants unless specifically recommended on this label. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for maximum control. Do not apply ESTERON 76 BE where spray drift may contact nearby susceptible crops or other desirable plants or may contaminate water for irrigation or domestic use. Do not apply in the vicinity of 2,4-D sensitive crops or ornamentals, plants since vapors from this product may cause injury to such crops or plants. Read and follow all Use Precautions given on this label.

NOTE: If there are uncertainties concerning special local use situations or specific crop variety tolerances to 2,4-D, consult local Extension Service or University Specialists for advice.

TO PREPARE THE SPRAY: (1) Fill the spray tank about half full with water, then add the required amount of ESTERON 76 BE, with agitation, and finally the rest of the water. **NOTE:** ESTERON 76 BE in water forms an emulsion which tends to separate unless the mixture is kept agitated. (2) If oil is added, first mix the ESTERON 76 BE and the oil and then add this mixture to the water with agitation. However, with adequate agitation, the oil can be added after the ESTERON 76 BE is mixed in the water if strong agitation is provided. (3) If straight oil is used, a solution is formed and separation does not occur. Do not allow any water to get into the oil-herbicide mixture to avoid formation of an invert emulsion.

WEED CONTROL IN SMALL GRAINS NOT UNDERSEEDED WITH A LEGUME: **NOTE:** Water is recommended to make up the spray. If oil is used, there is a greater risk of crop injury and of spray drift. Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment.

Spring Wheat and Barley: Apply 1/3 to 2/3 pint per acre by air or ground equipment. A 1/2 pint per acre rate of ESTERON 76 BE is an average dosage, effective on many weeds. Spray when grain is in full tiller stage (usually 4 to 8 inches tall) but before the boot stage and when weeds are small. Do not apply before the tiller stage nor from early boot to the dough stage. Higher rates (up to 1 1/3 pints per acre) may be required to control certain weeds but crop injury may result.

Winter Wheat and Rye: Apply 1/3 to 1/2 pint per acre in the spring at the full tiller stage but before the early boot stage. See more complete use directions under **Spring Wheat and Barley**.

Spring Seeded Oats: Apply 1/3 pint per acre at the full tiller stage but before the early boot stage. Oats are less tolerant to 2,4-D than wheat or barley and are more likely to suffer some injury, especially if higher rates (1/2 to 2/3 pint) are used to control difficult weeds.

Preharvest Treatment: Apply 2/3 to 1 1/3 pints per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth. **NOTE:** Do not feed treated straw to livestock.

WEED CONTROL IN CORN: Use one of the following three programs: **Preemergence:** Apply 1 1/2 to 2 2/3 pints per acre to soil anytime after planting but before corn emerges. Do not use on light sandy soil. **Emergence:** Apply 2/3 pint per acre just as corn plants are breaking ground. **Post-emergence:** After emergence of corn, use 1/3 pint per acre. Application of 1/2 to 2/3 pint per acre may be needed for maximum control of some weeds but such rates are more likely to injure the corn. If corn is over 8 inches tall, use drop nozzles to keep the spray off the corn foliage as much as possible. Do not apply from the tasseling to dough stage. Do not use with oil, atrazine or adjuvants. Crop injury is more likely to occur if corn is growing rapidly under high temperature and high soil moisture conditions. To reduce breakage of stalks from temporary brittleness caused by 2,4-D, delay cultivation for 8 to 10 days after treatment. **NOTE:** Hybrids vary in response to 2,4-D and some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Contact seed company and Extension Service Weed Specialists for this information.

WEED CONTROL IN SORGHUM (MILO): Apply 1/3 pint per acre when sorghum is 5 to 15 inches tall. A higher rate of 1/2 to 2/3 pint per acre may be needed to control some weeds but the chance for crop injury is likewise increased. Do not use with oil or other adjuvants. Do not treat before the sorghum is 5 inches tall nor during the boot, flowering or early dough stages. If sorghum is taller than 8 inches, use drop nozzles to keep the spray off the foliage as much as

WEED AND BRUSH CONTROL IN RANGELAND AND GRASS PASTURES BY AIR OR GROUND EQUIPMENT: **NOTE:** Do not graze dairy animals on treated areas within 7 days after application. The following treatments will injure or kill legumes so use only where loss of legumes can be tolerated. Do not apply on newly seeded areas until grass is well established. Do not apply from early boot to milk stage when grass seed production is desired.

Broadleaf Weeds: To control bitterweed, broomweed, craton, docks, Kochia, marshelder, musk-thistle and others, use 2 1/2 to 3 pints of ESTERON 76 BE per acre in the amount of water needed for uniform application. If the weeds are young and growing actively 1 1/2 to 2 pints per acre will provide control of many species. Deep-rooted perennial weeds may require repeated treatments in the same year or in subsequent years.

Chaparral Brush Species: To control chamise, manzanita, buckbrush, coastal sage and certain other chaparral species, use 1 1/2 to 2 quarts per acre in 8 to 10 gallons of water. A gallon of oil per acre may be included in the spray mixture for added effectiveness. For effective control, the brush must be fully leafed out and growing actively when sprayed. Retreatment may be needed.

Big Sagebrush: Use 1 1/2 to 2 quarts per acre in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. For effective control the sagebrush should be in full foliage and growing actively when sprayed.

WEED CONTROL IN NON-CROP AREAS SUCH AS LAWNS, AIRFIELDS, ROADSIDES, VACANT LOTS, DRAINAGE DITCH BANKS: Apply 1 to 2 quarts of ESTERON 76 BE per acre in the amount of water needed for uniform application. Usually 1 1/2 quarts per acre provides good weed control under average conditions. Treat when weeds are young and growing well. Do not use on golf greens nor on dichondra or other broadleaf herbaceous ground covers. Do not use on creeping grasses such as bent and St. Augustine except for spot treating, nor on newly seeded turf until grass is well established. Reseeding of treated areas should be delayed following treatment. With spring application, reseed in the fall; with fall application, reseed in the spring. Legumes are usually damaged or killed so do not treat areas where the legumes are desired. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years.

WOODY PLANT CONTROL IN NON-CROP AREAS: To control species susceptible to 2,4-D in right-of-ways, fencerows, roadsides, and along drainage ditchbanks, spray brush up to 5 to 8 feet tall after spring foliage is well developed, using 2 to 3 quarts of ESTERON 76 BE in 100 to 400 gallons of water and wetting all parts of the brush including foliage, stems and bark. This may require up to 400 gallons of spray for adequate coverage of solid stands of brush. Make application in such a way as to prevent drift of the spray off the area being treated. Spraying can be effective at any time up to 3 weeks before frost as long as soil moisture is sufficient for active growth of the brush. Less effective control may be obtained during hot dry weather when soil moisture is deficient and plants are not actively growing. Oil or wetting agent may be added to the spray, if needed for increased effectiveness. For more resistant species and for general control of mixed brush, use ESTERON Brush Killer or ESTERON 245 herbicide.

SPOT TREATMENT: To control broadleaf weeds in small non-cropland areas with a hand sprayer, use 1/8 pint of ESTERON 76 BE in 3 gallons of water and spray to thoroughly wet all weed foliage. Keep spray mixture agitated to prevent separation.

USE PRECAUTIONS

Do not apply ESTERON 76 BE herbicide directly to, or otherwise permit it to come into contact with cotton, grapes, fruit trees, vegetables, flowers or other desirable crop or ornamental plants which are sensitive to 2,4-D herbicide. Do not permit spray mist to drift onto them, since even very small quantities of the spray, which may not be visible, can cause severe injury during both growing and dormant periods. Use coarse sprays to minimize drift. With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by using no more than 20 pounds spraying pressure with flat fan or flooding flat fan nozzle tips; by spraying when wind velocity is low; and by stopping all spraying when wind exceeds 6 to 7 miles per hour. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray.

With aircraft application, drift can be reduced by applying a minimum of 5 gallons of spray per acre; by using no more than 20 pounds spray pressure at the nozzles; by using nozzles which produce a coarse spray pattern; and by spraying only when the wind velocity is less than 5 miles per hour.

Applications by aircraft, ground rig and hand dispenser should be carried out only when there is no hazard from spray drift. Do not apply in the vicinity of cotton, grapes, tomatoes or other desirable 2,4-D susceptible crop or ornamental vegetation. Do not spray when the wind is blowing toward susceptible crops or ornamental plants.

This is a high-volatile 2,4-D ester formulation. Vapors from this product may injure susceptible plants growing nearby. Do not use in or near a greenhouse. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth.

This product is toxic to fish. Keep out of lakes, streams and ponds. Do not apply when runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.

To avoid injury to desirable plants, do not handle or apply other agricultural chemicals with the same equipment used for ESTERON 76 BE except as specified on this label. This product can be stored in an unheated building but do not store near fertilizers, seeds, insecticides, or fungicides. If exposed to subfreezing temperatures, it should be warmed to at least 40 F and mixed thoroughly before using. Do not reuse container. Dispose of empty containers by punching holes in them and burying with waste in non-cropland away from water supplies or follow official local recommendations for container disposal.

Local conditions may affect the use of herbicides. Consult your State Agricultural Experiment Station or Extension Service weed specialists for advice in selecting treatments from this label to best fit local conditions. Be sure that use of this product conforms to all applicable regulations. Apply this product only as specified on this label.

CAUTION

**SPECIMEN LABEL
(BACK)
REDUCED TO 77%**

usually 3 to 20 gallons per acre by ground equipment and 3 to 5 gallons by aircraft. Higher gallonage may be used if desired to improve spray coverage and to reduce the hazard from spray drift.

Generally, the lower dosages recommended on this label will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. For crop uses, do not mix with oil or other adjuvants unless specifically recommended on this label. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for maximum control. Do not apply ESTERON 76 BE where spray drift may contact nearby susceptible crops or other desirable plants or may contaminate water for irrigation or domestic use. Do not apply in the vicinity of 2,4-D sensitive crops or ornamentals, plants since vapors from this product may cause injury to such crops or plants. Read and follow all Use Precautions given on this label.

NOTE: If there are uncertainties concerning special local use situations or specific crop variety tolerances to 2,4-D, consult local Extension Service or University Specialists for advice.

TO PREPARE THE SPRAY: (1) Fill the spray tank about half full with water, then add the required amount of ESTERON 76 BE, with agitation, and finally the rest of the water. **NOTE:** ESTERON 76 BE in water forms an emulsion which tends to separate unless the mixture is kept agitated. (2) If oil is added, first mix the ESTERON 76 BE and the oil and then add this mixture to the water with agitation. However, with adequate agitation, the oil can be added after the ESTERON 76 BE is mixed in the water if strong agitation is provided. (3) If straight oil is used, a solution is formed and separation does not occur. Do not allow any water to get into the oil-herbicide mixture to avoid formation of an invert emulsion.

WEED CONTROL IN SMALL GRAINS NOT UNDERSEEDED WITH A LEGUME: **NOTE:** Water is recommended to make up the spray. If oil is used, there is a greater risk of crop injury and of spray drift. Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment.

Spring Wheat and Barley: Apply $\frac{1}{3}$ to $\frac{2}{3}$ pint per acre by air or ground equipment. A $\frac{1}{2}$ pint per acre rate of ESTERON 76 BE is an average dosage, effective on many weeds. Spray when grain is in full tiller stage (usually 4 to 8 inches tall) but before the boot stage and when weeds are small. Do not apply before the tiller stage nor from early boot to the dough stage. Higher rates (up to $1\frac{1}{3}$ pints per acre) may be required to control certain weeds but crop injury may result.

Winter Wheat and Rye: Apply $\frac{1}{3}$ to $\frac{1}{2}$ pint per acre in the spring at the full tiller stage but before the early boot stage. See more complete use directions under Spring Wheat and Barley.

Spring Seeded Oats: Apply $\frac{1}{3}$ pint per acre at the full tiller stage but before the early boot stage. Oats are less tolerant to 2,4-D than wheat or barley and are more likely to suffer some injury, especially if higher rates ($\frac{1}{2}$ to $\frac{2}{3}$ pint) are used to control difficult weeds.

Preharvest Treatment: Apply $\frac{2}{3}$ to $1\frac{1}{3}$ pints per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth. **NOTE:** Do not feed treated straw to livestock.

WEED CONTROL IN CORN: Use one of the following three programs: **Preemergence:** Apply $1\frac{1}{3}$ to $2\frac{2}{3}$ pints per acre to soil anytime after planting but before corn emerges. Do not use on light sandy soil. **Emergence:** Apply $\frac{2}{3}$ pint per acre just as corn plants are breaking ground. **Post-emergence:** After emergence of corn, use $\frac{1}{3}$ pint per acre. Application of $\frac{1}{2}$ to $\frac{2}{3}$ pint per acre may be needed for maximum control of some weeds but such rates are more likely to injure the corn. If corn is over 8 inches tall, use drop nozzles to keep the spray off the corn foliage as much as possible. Do not apply from the tasseling to dough stage. Do not use with oil, atrazine or adjuvants. Crop injury is more likely to occur if corn is growing rapidly under high temperature and high soil moisture conditions. To reduce breakage of stalks from temporary brittleness caused by 2,4-D, delay cultivation for 8 to 10 days after treatment. **NOTE:** Hybrids vary in response to 2,4-D and some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Contact seed company and Extension Service Weed Specialists for this information.

WEED CONTROL IN SORGHUM (MILO): Apply $\frac{1}{3}$ pint per acre when sorghum is 5 to 15 inches tall. A higher rate of $\frac{1}{2}$ to $\frac{2}{3}$ pint per acre may be needed to control some weeds but the chance for crop injury is likewise increased. Do not use with oil or other adjuvants. Do not treat before the sorghum is 5 inches tall nor during the boot, flowering or early dough stages. If sorghum is taller than 8 inches, use drop nozzles to keep the spray off the foliage as much as possible. Temporary crop injury may occur under conditions of high soil moisture and high air temperatures. Varieties vary in tolerance to 2,4-D and some hybrids are quite sensitive. Spray only varieties known to be tolerant to 2,4-D. Contact seed company and Extension Service Weed Specialists for this information. Do not apply in the vicinity of cotton, soybeans and other 2,4-D susceptible plants.

WEED CONTROL IN GRASS SEED CROPS: Use $\frac{2}{3}$ to 1 pint per acre in the amount of water required for uniform application by air or ground equipment. Apply to established stands in spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedings can be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth can be treated in the fall.

turf until grass is well established. Reseeding of treated areas should be delayed following treatment. With spring application, reseed in the fall, with fall application, reseed in the spring. Legumes are usually damaged or killed so do not treat areas where the legumes are desired. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years.

WOODY PLANT CONTROL IN NON-CROP AREAS: To control species susceptible to 2,4-D in right-of-ways, fencerows, roadsides, and along drainage ditchbanks, spray brush up to 5 to 8 feet tall after spring foliage is well developed, using 2 to 3 quarts of ESTERON 76 BE in 100 gallons of water and wetting all parts of the brush including foliage, stems and bark. This may require up to 400 gallons of spray for adequate coverage of solid stands of brush. Make application in such a way as to prevent drift of the spray off the area being treated. Spraying can be effective at any time up to 3 weeks before frost as long as soil moisture is sufficient for active growth of the brush. Less effective control may be obtained during hot dry weather when soil moisture is deficient and plants are not actively growing. Oil or wetting agent may be added to the spray, if needed for increased effectiveness. For more resistant species and for general control of mixed brush, use ESTERON Brush Killer or ESTERON 245 herbicide.

SPOT TREATMENT: To control broadleaf weeds in small non-cropland areas with a hand sprayer, use $\frac{1}{8}$ pint of ESTERON 76 BE in 3 gallons of water and spray to thoroughly wet all weed foliage. Keep spray mixture agitated to prevent separation.

USE PRECAUTIONS

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With aircraft application, drift can be reduced by applying a minimum of 5 gallons of spray per acre; by using no more than 20 pounds spray pressure at the nozzles, by using nozzles which produce a coarse spray pattern; and by spraying only when the wind velocity is less than 5 miles per hour.

Applications by aircraft, ground rig and hand dispenser should be carried out only when there is no hazard from spray drift. Do not apply in the vicinity of cotton, grapes, tomatoes or other desirable 2,4-D susceptible crop or ornamental vegetation. Do not spray when the wind is blowing toward susceptible crops or ornamental plants.

This is a high-volatile 2,4-D ester formulation. Vapors from this product may injure susceptible plants growing nearby. Do not use in or near a greenhouse. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth.

This product is toxic to fish. Keep out of lakes, streams and ponds. Do not apply when runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.

To avoid injury to desirable plants, do not handle or apply other agricultural chemicals with the same equipment used for ESTERON 76 BE except as specified on this label. This product can be stored in an unheated building but do not store near fertilizers, seeds, insecticides, or fungicides. If exposed to subfreezing temperatures, it should be warmed to at least 40 F and mixed thoroughly before using. Do not reuse container. Dispose of empty containers by punching holes in them and burying with waste in non-cropland away from water supplies or follow official local recommendations for container disposal.

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CAUTION

KEEP OUT OF REACH OF CHILDREN
HARMFUL IF SWALLOWED • MAY CAUSE IRRITATION
Avoid Contact with Eyes, Skin and Clothing

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

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