

ACCEPTED
JAN 13 1975
UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT
FOR ECONOMIC POISON REGISTER-
ED UNDER NO. 464-463 SUBJECT
TO APPROVED COMMENTS.



SPECIMEN LABEL
75% REDUCTION

464-463

ESTERON 44 IMPROVED

HERBICIDE

CONTAINS BUTYL ESTERS OF 2,4-D

2,4-D Acid Equivalent: 3 1/3 Pounds per Gallon

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

ACTIVE INGREDIENTS:
2,4-Dichlorophenoxyacetic Acid,
butyl esters. 51.0%
INERT INGREDIENTS. 49.0%
2,4-Acid Equivalent 40.7% -
3 1/3 pounds per gallon
E.P.A. Registration No. 464-463-AA
E.P.A. Est. 464-MI-1

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

AGRICULTURAL CHEMICAL

**Do Not Share or Store with
Food, Feeds, or Clothing**

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

TRANSLATION: (TO THE USER: If you cannot read
English, do not use this product until the label has
been fully explained to you.)

5 GAL / 18.9 L

86-1293 PRINTED IN U.S.A. IN OCTOBER, 1974.

REPLACES SPECIMEN LABEL 86-1293 PRINTED IN JUNE, 1973.

REVISIONS INCLUDE: (1) AGRICULTURAL CHEMICAL STATEMENT
ADDED (2) SPANISH WARNING STATEMENT ADDED

RECEIVED
15 NOV 1974
REGISTRATION DIVISION
PESTICIDES, EPA



ESTERON* 44 IMPROVED HERBICIDE

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

**SPECIMEN LABEL
(BACK)
75% REDUCTION**

ACTIVE INGREDIENTS:
2,4-Dichlorophenoxyacetic Acid, butyl esters 51.0%
INERT INGREDIENTS: 49.0%
2,4 Acid Equivalent 40.7% - 3 1/2 pounds per gallon
E.P.A. Registration No. 464-463-AA

USE DIRECTIONS

ESTERON 44 IMPROVED is recommended for use in small grains, corn, grass seed crops and non-crop areas to control dandelion, docks, elderberry, fanweed, galin-soga, henbit, Kochia, lambsquarters, locust, mustards, peppergrass, pigweed, plantains, ragweed, shepherds-purse, sumac, thistles, tumbleweed, vetch, wild radish, willow, and many other broadleaf weeds and susceptible woody species without injury to most established grasses.

Apply ESTERON 44 IMPROVED herbicide as water or oil spray during warm weather when weeds or brush are actively growing. Applications 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 44 IMPROVED 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 ornamental plants since vapors from this product may cause injury to such crops or plants. This is a high-volatile 2,4-D ester formulation. 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 clean water, then add the required amount of ESTERON 44 IMPROVED, with agitation, and finally the rest of the water. **NOTE:** ESTERON 44 IMPROVED in water forms an emulsion which tends to separate unless the mixture is kept agitated. (2) If oil is added, first mix the ESTERON 44 IMPROVED and the oil and then add this mixture to the water. However, with vigorous agitation, the oil can be added after the ESTERON 44 IMPROVED is mixed in the water. (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: 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 1/2 to 1 1/2 pints per acre. 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 dough stage. Higher rates (up to 2 pints per acre) may be required to control certain weeds, especially under dry conditions in western areas. High rates are more likely to cause crop injury.

Winter Wheat and Rye: Apply 1/2 to 1 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.

Preharvest Treatment: Apply 1 1/2 to 2 1/2 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 1/4 to 2 1/2 quarts per acre to soil anytime after planting but before corn emerges. Do not use on light sandy soil. **Emergence:** Apply 1 pint per acre just as corn plants are breaking ground. **Postemergence:** After emergence of corn, use 1/2 to 3/4 pint per acre. Application of 3/4 to 1 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 atrazine, oil 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 companies and Extension Service weed specialists for this information.

WEED CONTROL IN GRASS SEED CROPS: Use 1 to 1 1/4 pints per acre. Apply to established stands in spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedlings can be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth can be treated in the fall.

WEED CONTROL IN NON-CROP AREAS SUCH AS LAWNS, GOLF COURSES, AIR-FIELDS, ROADSIDES, VACANT LOTS, DRAINAGE DITCH BANKS: Apply 1 1/2 to 3 1/2 quarts of ESTERON 44 IMPROVED per acre in the amount of water needed for uniform application. Usually 2 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 dichandra 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 the 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. Do not use in locations adjacent to desirable plants which may be sensitive to 2,4-D.

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 3 1/2 to 5 quarts of ESTERON 44 IMPROVED 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 per acre depending on brush height and density. 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. Do not use in locations adjacent to desirable plants which may be sensitive to 2,4-D. 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 noncropland areas with a hand sprayer, use 1/2 pint of ESTERON 44 IMPROVED 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 44 IMPROVED 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 containing it 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 winds exceed 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 lessened by applying no less than 5 gallons of spray per acre; by using nozzles which produce a coarse spray pattern; and by spraying only when 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 such situations. Do not use in or near a greenhouse. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.

This product is toxic to fish. Keep out of lakes, streams and ponds. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes.

To avoid injury to desirable plants, do not handle or apply other agricultural chemicals with the same equipment used for ESTERON 44 IMPROVED 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. **NOTE:** ESTERON 44 IMPROVED exposed to subfreezing temperatures should be warmed to at least 40°F and mixed thoroughly before using. Do not reuse container. Dispose of empty container by punching holes in it and burying with waste in non-cropland away from water supplies or follow official local recommendations for container disposal.

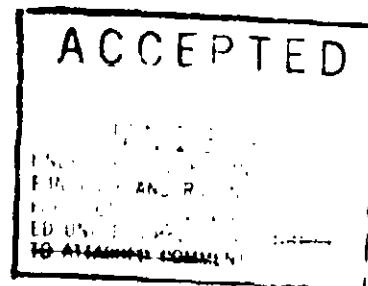
Local conditions may affect the use of herbicides. Consult your State Agricultural Experiment Station or Extension Service weed specialists for advice in selecting treatments from this label to best fit local conditions. Be sure that use of this product conforms to all applicable regulations. Apply this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

CAUTION

**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. A1074

THE DOW CHEMICAL COMPANY



SPEC

ESTERON* 44 IMPRO HERBICIDE

CONTAINS BUTYL ESTERS OF 2,4-D
2,4-D Acid Equivalent: 3 1/3 Pounds per Gallon

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

ACTIVE INGREDIENTS:
2,4-Dichlorophenoxyacetic Acid,
butyl esters..... 51.0%
INERT INGREDIENTS..... 49.0%
2,4-Acid Equivalent 40.7% -
3 1/3 pounds per gallon
E.P.A. Registration No. 464-463-AA
E.P.A. Est. 464-MI-1

CAUTION

KEEP OUT OF THE REACH OF CHILDREN
HARMFUL IF SWALLOWED
MAY CAUSE IRRITATION

Avoid Contact with Eyes, Skin and Clothing

38

AGRICULTURA

Do Not Ship or
Food, Feeds, or

PRECAUCION: AL USUARIO
no use este producto hasta
sido explicada amplemente.

TRANSLATION: (TO THE USER)
English, do not use this product
been fully explained to you.

5 GAL/18.9 L

86-1293 PRINTED IN U.S.A. IN OCTOBER, 1974.
REPLACES SPECIMEN LABEL 86-1293 PRINTED IN JUNE, 1973.
REVISIONS INCLUDE: (1) AGRICULTURAL CHEMICAL STATEMENT
ADDED (2) SPANISH WARNING STATEMENT ADDED

RECEIVED
15 NOV 1974
AGRICULTURAL CHEMICAL STATEMENT



SPECIMEN LABEL
75% REDUCTION

RON^{*} 44 IMPROVED HERBICIDE

CONTAINS BUTYL ESTERS OF 2,4-D

2,4-D Acid Equivalent: 3 1/3 Pounds per Gallon

*Control of Many Broadleaf Weeds, Herbaceous Perennials and
Plants Susceptible to 2,4-D in Certain Crops and Non-Crop Areas.*

Acid,
..... 51.0%
..... 49.0%

64-463-AA
II-1

CAUTION

**KEEP OUT OF THE REACH OF CHILDREN
HARMFUL IF SWALLOWED
MAY CAUSE IRRITATION**

Avoid Contact with Eyes, Skin and Clothing

25

AGRICULTURAL CHEMICAL

**Do Not Ship or Store with
Food, Feeds, or Clothing**

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

TRANSLATION: (TO THE USER: If you cannot read
English do not use this product until the label has
been fully explained to you)

36

5 GAL/18.9 L



ESTERON* 4 HERBICIDE

For the Control of Many Broadleaf Weeds, Herbaceous
Woody Plants Susceptible to 2,4-D in Certain Crops and

ACTIVE INGREDIENTS

2,4-Dichlorophenoxyacetic Acid, butyl esters	51.0%
INERT INGREDIENTS:	49.0%
2,4-Acid Equivalent 40.7% - 3 1/2 pounds per gallon	
E.P.A. Registration No. 464-463-AA	

USE DIRECTIONS

ESTERON 44 IMPROVED is recommended for use in small grains, corn, grass seed crops and non-crop areas to control dandelion, docks, elderberry, fanweed, galin, sage, henbit, Kochia, lambsquarters, locust, mustards, peppergrass, pigweed, plantains, ragweed, shepherds-purse, smartweeds, thistles, tumbleweed, vetch, wild radish, willow, and many other broadleaf weeds and susceptible woody species without injury to most established grasses.

Apply ESTERON 44 IMPROVED herbicide as water or oil spray during warm weather when weeds or brush are actively growing. Applications under drought conditions often will give poor results. Use low spray pressure to minimize spray drift. On crop land 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 44 IMPROVED 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 ornamental plants since vapors from this product may cause injury to such crops or plants. This is a high-volatile 2,4-D ester formulation. 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 clean water, then add the required amount of ESTERON 44 IMPROVED, with agitation, and finally the rest of the water. **NOTE:** ESTERON 44 IMPROVED in water forms an emulsion which tends to separate unless the mixture is kept agitated. (2) If oil is added, first mix the ESTERON 44 IMPROVED and the oil and then add this mixture to the water. However, with vigorous agitation, the oil can be added after the ESTERON 44 IMPROVED is mixed in the water. (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: 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 1/2 to 1 1/2 pints per acre. 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 dough stage. Higher rates (up to 2 pints per acre) may be required to control certain weeds, especially under dry conditions in western areas. High rates are more likely to cause crop injury.

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

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

WEED CONTROL IN CORN: Use one of the following three programs. **Preemergence:** Apply 1 1/4 to 2 1/2 quarts per acre to soil anytime after planting but before emergence. Do not use on light sandy soil. **Emergence:** Apply 1 pint per acre just as corn plants are breaking ground. **Postemergence:** After emergence of corn, use 1 to 2 1/2 pints per acre. Application of 1/4 to 1 pint per acre may be needed for maximum control of some weeds but such rates are more likely to injure the corn. If corn over 8 inches tall, use drop nozzles to keep the spray off the corn foliage as far as possible. Do not apply from the tasseling to dough stage. Do not use with atrazine or other herbicides. Crop injury is more likely to occur if corn is growing rapidly under high temperature and high soil moisture conditions. To reduce breakage of stems 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 companies or Extension Service weed specialists for this information.

WEED CONTROL IN GRASS SEED CROPS: Use 1 to 1 1/4 pints per acre. Apply to established stands in spring from the tiller to early boot stage. Do not spray before boot stage. New spring seedings can be treated with the lower rate after the grass have at least five leaves. Perennial weed regrowth can be treated in the fall.

WEED CONTROL IN NON-CROP AREAS SUCH AS LAWNS, GOLF COURSES, AERIALS, FIELDS, ROADSIDES, VACANT LOTS, DRAINAGE DITCH BANKS: Apply 1 1/2 to 2 quarts of ESTERON 44 IMPROVED per acre in the amount of water needed for uniform application. Usually 2 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 or 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 the 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. Do not use in locations adjacent to desirable plants which may be sensitive to 2,4-D.

WOODY PLANT CONTROL IN NON-CROP AREAS: To control species susceptible to 2,4-D in right-of-ways, fence rows, roadsides, and along drainage ditches, spray brush up to 5 to 8 feet tall after spring foliage is well developed, using 1 to 5 quarts of ESTERON 44 IMPROVED 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 per acre depending on brush height and density. Make application in 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 weather when soil moisture is deficient and plants are not actively growing. A wetting agent may be added to the spray, if needed for increased effectiveness. Do not use in locations adjacent to desirable plants which may be sensitive to 2,4-D. For more resistant species and for general control of mixed brush, use ESTERON 8-Killer or ESTERON 245 Herbicide.

SPOT TREATMENT: To control broadleaf weeds in small non-crop areas with hand sprayer, use 1/3 pint of ESTERON 44 IMPROVED in 3 gallons of water and spray to thoroughly wet all weed foliage. Keep spray mixture agitated to prevent separation.

THE DOW CHEMICAL COMPANY
AND SUBSIDIARIES

MIDLAND, MICHIGAN 48640, U.S.A. ZÜRICH, SWITZERLAND, HONG KONG
CORAL GABLES, FLORIDA 33134, U.S.A. BARNBY, ONTARIO, CANADA
* Trademark of THE DOW CHEMICAL COMPANY

SPECIMEN LABEL
(BACK)
75% REDUCTION

ESTERON[®] 44 IMPROVED HERBICIDE

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

Esters 51.0%
Solids per gallon 49.0%
DOW No. 464-463-AA

DIRECTIONS

Use for use in small grains, corn, grass, seed
production, docks, elderberry, fanweed, galin
ocult, mustards, peppergrass, pigweed,
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Preharvest Treatment: Apply 1 1/2 to 2 1/2 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 1/4 to 2 1/2 quarts per acre to soil anytime after planting but before corn emerges. Do not use on light sandy soil. Emergence: Apply 1 pint per acre just as corn plants are breaking ground. Postemergence: After emergence of corn, use 1/2 to 2 3/4 pint per acre. Application of 1/4 to 1 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 atrazine, oil 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 companies and Extension Service weed specialists for this information.

WEED CONTROL IN GRASS SEED CROPS: Use 1 to 1 1/4 pints per acre. Apply to established stands in spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedlings can be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth can be treated in the fall.

WEED CONTROL IN NON-CROP AREAS SUCH AS LAWNS, GOLF COURSES, AIR-FIELDS, ROADSIDES, VACANT LOTS, DRAINAGE DITCH BANKS: Apply 1 1/2 to 3 1/2 quarts of ESTERON 44 IMPROVED per acre in the amount of water needed for uniform application. Usually 2 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 the 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. Do not use in locations adjacent to desirable plants which may be sensitive to 2,4-D.

WOODY PLANT CONTROL IN NON-CROP AREAS: To control species susceptible to 2,4-D in right of ways, fence rows, roadsides, and along drainage ditchbanks, spray brush up to 5 to 8 feet tall after spring foliage is well developed, using 3 1/2 to 5 quarts of ESTERON 44 IMPROVED 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 per acre depending on brush height and density. 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. Do not use in locations adjacent to desirable plants which may be sensitive to 2,4-D. 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 1/2 pint of ESTERON 44 IMPROVED 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 44 IMPROVED 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 containing it 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 winds exceed 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 lessened by applying no less than 5 gallons of spray per acre, by using nozzles which produce a coarse spray pattern, and by spraying only when 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 such situations. Do not use in or near a greenhouse. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.

This product is toxic to fish. Keep out of lakes, streams and ponds. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes.

To avoid injury to desirable plants, do not handle or apply other agricultural chemicals with the same equipment used for ESTERON 44 IMPROVED 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. NOTE: ESTERON 44 IMPROVED exposed to subfreezing temperatures should be warmed to at least 40°F and mixed thoroughly before using. Do not reuse container. Dispose of empty container by punching holes in it 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

**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.

THE DOW CHEMICAL COMPANY

AND SUBSIDIARIES

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