

Net Contents: ONE GALLON

**Tobacco States**  
BRAND

**ESTER 410**  
CONCENTRATE

LOW VOLATILE  
**WEED KILLER**  
4 lbs. Acid Per Gallon

**CAUTION:** Keep out of reach of children.  
Harmful if Swallowed.  
MAY CAUSE SKIN IRRITATION  
Avoid Contact With Eyes, Skin, and Clothing.  
Do not reuse empty containers.  
Destroy by burying in a safe place.

May be stored in unheated buildings.

TOBACCO STATES CHEMICAL CO., INC.  
Lexington, Kentucky

**CAUTION:** For small grains (barley, oats, rye and wheat) — Do not forage or graze treated grain fields within 2 weeks after treatment with this product. Do not feed treated straw to livestock.

**DIRECTIONS:**

**WEED CONTROL IN SPRING WHEAT AND BARLEY:**

Use 1 pint per acre in the amount of water necessary for even spraying. Dosage may be reduced to 1/4 pint or increased to 3/4 pints per acre in accordance with resistance of weeds to be controlled. Spray when grain is in full tiller stage (6 to 8 inches tall) until the early boot stage. Injury may result if sprays are applied to young seedlings or when grain is in the boot or shot stage. Sprays may be used after the hard dough stage to control weeds which may interfere with harvesting.

**WEED CONTROL IN WINTER WHEAT AND RYE:**

Apply 1/2 to 3/4 pints per acre in the spring from the Apply 1 to 1 1/2 pints per acre in the spring from the fully tiller to the jointing stages.

**WEED CONTROL IN OATS NOT UNDERSEEDED WITH A LEGUME:**

Use not over 1/2 pint per acre and apply from full tiller to boot or after milk stage to ripening grain. Do not apply from boot to milk stage or in seedling stage.

**WEED CONTROL IN CORN: Postmergence**

Use 3/8 pint per acre in the amount of water necessary for even distribution. Dosage may be reduced to 1/4 pint or increased to 1/2 pint in accordance with resistance of weeds to be controlled. Apply from emergence to tasselling. After corn is 6 to 8 inches tall, use drop nozzles to keep spray off corn foliage. Do not apply from tasselling to dough stage. **Pre-emergence** - Use 1 to 2 quarts of Ester 410 Conc. in 10 to 20 gallons of water per acre. Spray 3 to 6 days after planting but before corn emerges. Do not use where corn is planted in very light sandy soil.

**ROADSIDE AND GENERAL WEED CONTROL:**

Along roads, right-of-ways, fence rows, ditch banks, and in pole yards, farmyards and similar non-crop areas, use 1 to 1 1/2 quarts of Ester 410 Conc. in 100 gallons of water. Apply when weeds are growing actively and foliage is fully expanded. Wet all foliage thoroughly.

**TURF AND PASTURE WEED CONTROL:**

To control many broadleaved weeds including Bittersweet, broom-weed, croton weed, docks, dogfennel, kochia, and marsh-elder, use 1/2 to 1 quart per acre in the amount of water needed for even spraying. Apply then, when weeds are growing actively. Do not graze to dairy animals within 7 days after treatment.

**NOTE:** Do not use on creeping grasses, such as bent, except for spot spraying nor on freshly seeded lawns or pasture lands until grass is well started. Most legumes are usually damaged or killed. For wild garlic and wild onions, in pastures, apply 2 to 3 quarts per acre in very early spring every year for at least 3 years.

**WOODY PLANT CONTROL:**

To control 2,4 D susceptible species in fence rows, ditch banks, right-of-ways, along roads, farmyard and similar non-crop areas, spray brush up to 6 to 8 feet tall after foliage is well developed using drenching spraying of 1 1/2 quarts of Ester 410 Conc. in 50 gallons of water. Wet thoroughly all parts of the plants including foliage, shoot stems and bark.

With good growing conditions and high soil moisture sprays may be used up to 2 to 3 weeks before normal frost time, but spraying soon after leaves are fully open in the spring usually gives best results. Control may be less effective during hot, dry weather when deep soil moisture is deficient. **For Sand Shinnery Oak,** use 1 quart of Ester 410 Conc. either in 5 gallons of diesel or fuel oil, or in 4 gallons of water plus 1 gallon of oil. Apply by airplane between May 15 and June 15. **For Sand Sagebrush:** Use 1 quart of Ester 410 Conc. in 1 1/2 gallons of diesel or fuel oil. Apply by airplane when plants are growing actively and foliage is fully developed.

MAY 19, 1971  
1972

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### GENERAL INFORMATION

The number of gallons of the mixture to use per acre will depend upon the type of spray equipment. Where low gallonage spray equipment is used 5 or less gallons per acre will give adequate coverage.

Do not let Ester 410 Conc. come into contact with vegetables, flowers, grapes, fruit trees, ornamentals, cotton or other desirable plants which are sensitive to 2,4-D and its formulations, and do not permit spray mists containing it to drift onto them, since even minute quantities of the spray may cause injury during both growing and dormant periods. (Coarse sprays are less likely to drift.) Accordingly, applications by airplane, ground rigs and hand dispensers should be carried out only when there is no hazard from drift. Do not apply by airplane in the vicinity of cotton, grapes or other desirable 2,4-D susceptible vegetation. At higher temperatures vaporization may cause injury to susceptible plants growing nearby. Excessive amounts of this weed killer in the soil may temporarily stop seed germination or plant growth. Do not contaminate irrigation ditches or water used for domestic purposes. Do not store near fertilizers, seed, insecticides or fungicides. To avoid injury to desirable plants, do not store, handle or apply other agricultural chemicals with the same containers or equipment used for Ester 410 Conc. Be sure that use of this product conforms to all applicable regulations.

### DIRECTIONS:

**GENERAL DIRECTIONS:** Apply Ester 410 Conc. at low pressures (30 to 50 pounds) during warm weather when weeds are well leaved out and growing actively. Dosages as low as 1/4 pint per acre will usually be satisfactory for young tender growth of sensitive weeds such as wild mustard. For less sensitive weeds and under conditions where kill is difficult, higher dosage will be required. Extra sprays may be needed for hard-to-kill weeds.

**IMPORTANT:** When used on crops at the higher rates recommended, Ester 410 Conc. may cause some injury to crop plants, particularly when crop growth is very rapid. Where weeds are a serious problem, however, the control obtained will often more than offset the crop damage. Do not use Ester 410 Conc. on crops other than those listed.

**TO PREPARE A SPRAY:** Add half the required amount of water to the spray tank, then the Ester 410 Conc. with agitation, and finally the balance of the water with continued agitation.

**NOTE:** This forms an emulsion—not a solution—which tends to separate on standing. Provide agitation to ensure uniform spray mixture.

**NOTE:** One tablespoon of Ester 410 in 6 quarts of spray is about equal to 1 pint in 100 gallons.

### PARTIAL LIST OF WEEDS

#### CONTROLLED BY ESTER 410 CONC.

<u>Thistles</u>	<u>Mustards</u>	<u>Shepherd's Purse</u>
<u>Bitterweed</u>	<u>Peppergrass</u>	<u>Wild King Glory</u>
<u>Broomweed</u>	<u>Pigweed</u>	<u>Many other broad</u>
<u>Croton Weed</u>	<u>Plantain</u>	<u>leaved weeds</u>
<u>Dandelion</u>	<u>Ragweed</u>	<u>Alder</u>
<u>Dog Fennel</u>	<u>Tarweed</u>	<u>Buckbrush</u>
<u>Fanweed</u>	<u>Vetch</u>	<u>Elderberry</u>
<u>Kochia</u>	<u>Wild Carrot</u>	<u>Hazel</u>
<u>Lamb's Quarter</u>	<u>Wild Garlic</u>	<u>Costal Sage</u>
<u>Mallow</u>	<u>Wild Onion</u>	<u>Sand Sage</u>
<u>Marshelder</u>	<u>Wild Radish</u>	<u>Sand Shinnery Oak</u>
<u>Sumac</u>	<u>Willow</u>	<u>Certain other</u>
		<u>woody plants</u>

Local conditions may affect the use of herbicides. State agricultural authorities in many states issue recommendations to fit local conditions.

For more specific uses of Ester 410 Conc. WEED KILLER, consult State Agricultural Experiment Station or consult State Agricultural Experiment Station or Extension Service Weed Specialists.

H 3-71



ACTIVE INGREDIENTS:  
2,4-Dichlorophenoxyacetic acid  
(Equivalent to 2,4-D)

INERT INGREDIENTS

**CAUTION:** Keep...  
See...  
Harmful...  
MAY CAUSE...  
Avoid Contact With...  
Do not reu...  
Destroy by h...  
USDA

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TOBACCO STA  
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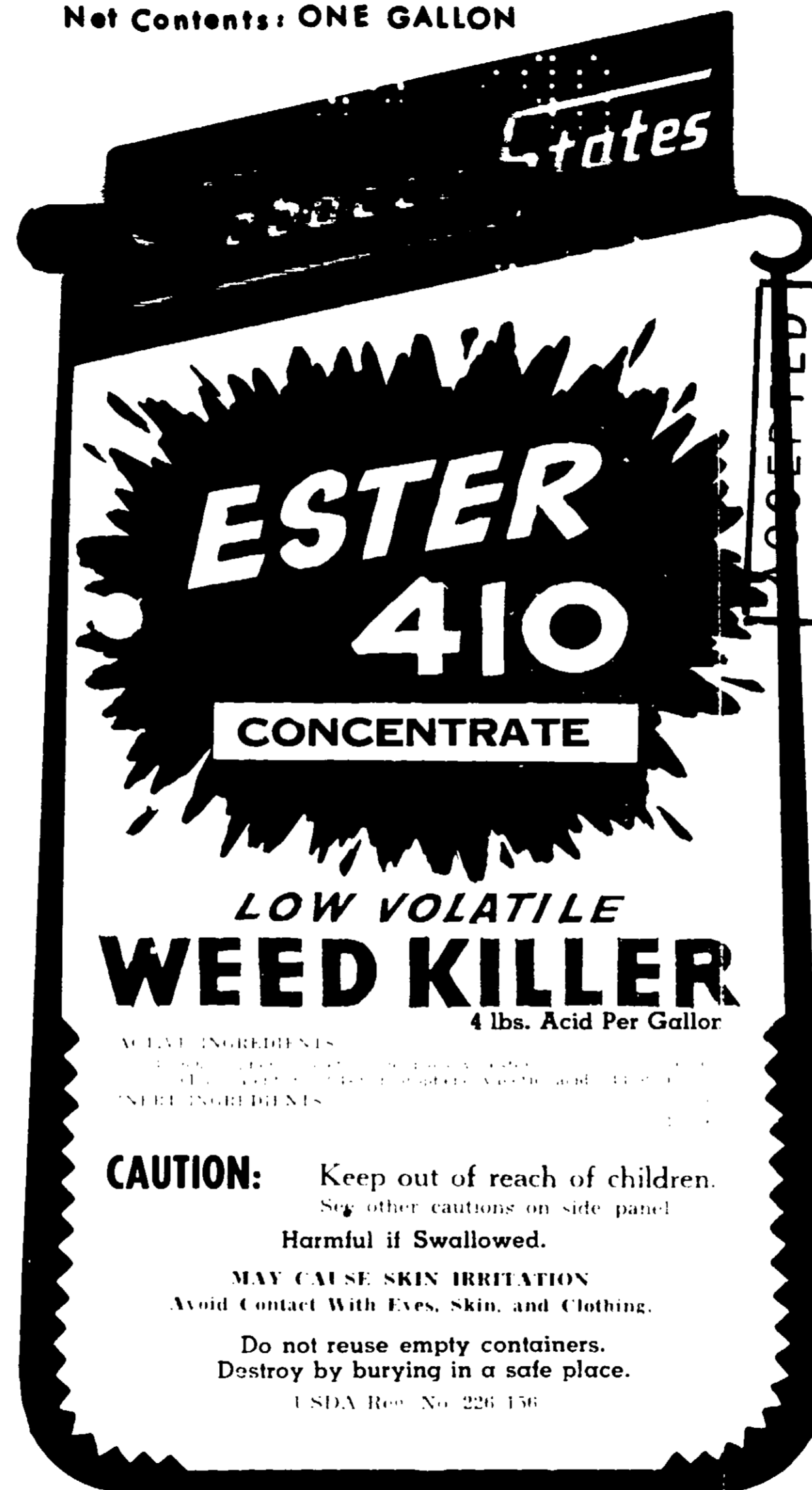
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Lamb's Quarter	Wild Garlic	Costal Sage
Mallow	Wild Onion	Sand Sage
Marshelder	Wild Radish	Sand Shinnery Oak
Sumac	Willow	Certain other
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See other cautions on side panel.  
Harmful if Swallowed.

MAY CAUSE SKIN IRRITATION  
Avoid Contact With Eyes, Skin, and Clothing.

Do not reuse empty containers.  
Destroy by burying in a safe place.

USDA Reg. No. 226-156

May be stored in unheated buildings.

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Lexington, Kentucky

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