

# **HYBRID POPLAR TREES, COTTONWOOD TREES AND WILLOW TREES GROWN AS BIOENERGY CROPS**

General Information

## **PRODUCT INFORMATION**

Performance of this product may be affected by local conditions, crop varieties, and application method. User should consult local Extension Service, Agricultural Experiment or University Weed Specialists, and state regulatory agencies for recommendations in his area.

Best results are obtained when product is applied to young succulent weeds that are actively growing. The lower specified rates will be satisfactory on susceptible annual weeds. For perennial weeds and conditions such as the very dry areas of the western states where control is difficult, use the higher specified rate.

When product is used for weed control in crops, the growth stage of the crop must be considered.

Some plants and weeds, especially woody varieties, are difficult to control and may require repeat applications if permitted by this label.

Apply 1 to 5 gallons of total spray by air or 5 to 25 gallons by ground equipment unless otherwise directed. In either case, use the listed amount of 2,4-D per acre.

For crop uses, do not mix with oil, surfactants, or other adjuvants unless specifically recommended. To do so may reduce herbicide's selectivity and could result in crop damage.

Many states have regulations concerning aerial application of 2,4-D formulations. Consult local regulatory authorities before making applications. This product contains dimethylamine salt of 2,4-D, one of the least volatile forms of 2,4-D.

Do not allow product to come into contact with desirable, susceptible plants such as beans, cotton, fruit trees, grapes, legumes, ornamentals, peas, tomatoes, and other vegetables. Excessive amounts of this product in the soil may temporarily inhibit seed germination and all plant growth. Do not use in greenhouses.

NOTE: Herbicide treatment of public water requires a permit from appropriate state agencies in most states. Your State Conservation Department or Game and Fish Commission will aid you in securing a permit in your state.

Spray equipment used to apply 2,4-D may not be used for any other purpose until thoroughly cleaned by a suitable chemical cleaner.

Spray Preparation: Add the specified amount of product to approximately 1/2 the volume of water to be used for spraying. Agitate well, then add the remainder of the water. Continue agitation during application until spray tank is empty.

Use in Liquid Nitrogen Fertilizer: Product may be combined with liquid nitrogen fertilizer suitable for foliar application on corn, grass, pastures, or small grains in one operation. Use product according to directions on this label for those crops. Use liquid nitrogen fertilizer at rates recommended by supplier or Extension Service Specialist. Mix the product and fertilizer according to the following instructions:

Fill the spray tank approximately 1/2 full with the liquid nitrogen fertilizer. In a separate clean container, mix the amount of product to be used with an equal amount of water. Add the product mixture to the spray tank while agitating. Add the remainder of the fertilizer while continuing to agitate. Apply immediately, maintaining agitation during application until tank is empty. **DO NOT APPLY DURING COLD (NEAR FREEZING) WEATHER.** Spray mixture must be used immediately and may not be stored.

Note: Pre-mixing the product with an equal amount of water is important.

#### Spot Treatments

To prevent misapplication, apply spot treatments with a calibrated boom or with hand sprayers using a fixed spray volume per 1,000 sq ft as indicated in the label.

Hand-Held Sprayers: Hand-held sprayers may be used for spot applications of 2,4-D AMINE 4. Apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on the application rate for an

area of 1,000 sq ft. Mix the amount of 2,4-D AMINE 4 (fl oz or ml) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of 2,4-D AMINE 4 required for larger areas, multiply the table value (fl oz or ml) by the thousands of sq ft to be treated. An area of 1000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

Band Application: 2,4-D AMINE 4 may be applied as a band treatment.

#### Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

#### Equipment

All aerial equipment and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

For aerial equipment, the boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made in a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

For ground boom application, do not apply with a nozzle height greater than 4 feet above the crop canopy.

### Limitations, Restrictions, and Exceptions

#### HYBRID POPLAR TREES, COTTONWOOD TREES AND WILLOW\* TREES GROWN AS BIOENERGY CROPS

This product may be used in hybrid poplar trees, cottonwood trees and willow trees grown as bioenergy crops. Application during warm weather is preferred. Apply when weeds are actively growing, preferably before bud stage. Repeat treatment may be necessary for less susceptible weeds; re-apply as needed.

For hybrid poplar, cottonwood and willow make application prior to or after planting. For ground spray equipment, use 1/2 to 3 pints per acre.

NOTE: Exercise extreme care to avoid contact of the spray solution, spray, drift, or mist with tree foliage, green bark of trunks, stems or exposed roots of the poplar, cottonwood and willow trees. Contact of the spray solution to these parts can result in serious damage. Even when using extreme care in application of this product, injury to crops from this herbicide may occur. If you are not prepared to accept some degree of crop injury, do not use this product.

\*Not For Use in California.

#### RESTRICTIONS AND LIMITATIONS

- Limited to 1 broadcast applications per year.
- Maximum of 4 pints (2 lb. ae) per acre per application.
- Minimum of 30 days between applications.
- Use sufficient spray volume for thorough and uniform coverage, but a minimum of 10 gallons per acre for broadcast application.
- Do not apply this product by air for use of weed control in hybrid poplar tree, cottonwood trees and willow trees grown as bioenergy crops.
- Do not apply through any type of irrigation system.
- Do not allow people (other than applicator) or pets on treatment area during application.
- Do not enter treatment areas until sprays have dried.
- Do not use this product in or near greenhouses, for use of weed control in hybrid poplar tree, cottonwood trees and willow trees grown as bioenergy crops.
- Do not spray immediately before irrigation and withhold above-ground irrigation

for 3 days after application.

- Do not use treated vegetation for forage or hay or allow livestock to graze treated fields.
- Treated plantings not to be consumed by human or animal.

Method

Broadcast/Foliar Ground

Restricted Entry Interval

48 hours

Timings

When weeds are actively growing, preferably before bud stage.