

# AQUATIC WEED CONTROL

(irrigation ditchbank application)

(Amines, salts, acid and butoxyethanol ester only)

WEEDS AND BRUSH ON IRRIGATION CANAL DITCHBANKS	Maximum Application Rate per Acre	Directions and Timing
Postemergence	2.0 lbs. acid equivalent	For best results, treat when weeds are young and actively growing.

#### RESTRICTIONS AND LIMITATIONS FOR USE ON IRRIGATION CANAL DITCHBANKS

Max seasonal rate: Apply no more than 4.0 lbs. acid equivalent per acre per use season. Apply no more than 2 treatments per season. Do not make a broadcast application within 30 days of previous broadcast application. Spot treatments are permitted. Use 2 or more gallons of spray solution per acre. Do not use on small canals with a flow rate less than 10 cubic feet per second (CFS) where water will be used for drinking purposes. CFS may be estimated by using the formula below. The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance. Divide the distance (ft.) by the time (sec.) to estimate velocity (ft. per sec.). Repeat 3 times and use the average to calculate CFS.

Average Width (ft.) x Average Depth (ft.) x Average Velocity (ft. per sec.) = CFS

For Ditchbank Weeds: Do not spray cross-stream to opposite bank. Do not allow boom spray to be directed onto water. For Shoreline Weeds: Boom spraying onto water surface must be held to a minimum and allow no more than 2 foot overspray onto water with an average of less than 1 foot overspray to prevent introduction of greater than negligible amounts of chemical into the water.

EPA Chemical Number	Chemical	Formulation	Reentry Interval	Application Method	Application Equipment
030001	Acid	WP	NA	Boat or Aerial Spray Broadcast or spot	Aircraft: Fixed Wing or Helicopter Ground: Boom Sprayers, Hand held nozzle sprayer, Backpack / knapsack sprayer
030019	DMA	SC/L SC/S	NA	Boat or Aerial Spray Broadcast or spot	Aircraft: Fixed Wing or Helicopter Ground: Boom Sprayers, Hand held nozzle sprayer, Backpack / knapsack sprayer
030053	BEE	G	NA	Boat or aerial spreader Broadcast or spot	Aircraft: Fixed Wing or Helicopter Boat Granule Spreaders
030035	TIPA	SC/L	NA	Boat or Aerial Spray Broadcast or spot	Aircraft: Fixed Wing or Helicopter Ground: Boom Sprayers, Hand held nozzle sprayer, Backpack / knapsack sprayer
030025	IPA	SC/L	NA	Boat or Aerial Spray Broadcast or spot	Aircraft: Fixed Wing or Helicopter Ground: Boom Sprayers, Hand held nozzle sprayer, Backpack / knapsack sprayer
030016	DEA	SC/L	NA	Boat or Aerial Spray Broadcast or spot	Aircraft: Fixed Wing or Helicopter Ground: Boom Sprayers, Hand held nozzle sprayer, Backpack / knapsack sprayer
030004	Na	SC/L SC/S	NA	Boat or Aerial Spray Broadcast or spot	Aircraft: Fixed Wing or Helicopter Ground: Boom Sprayers, Hand held nozzle sprayer, Backpack / knapsack sprayer



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# AQUATIC WEED CONTROL

(surface application for floating and emergent weeds) (Amines, salts, acid and butoxyethanol ester only)

AQUATIC SITES WITH EMERGENT WEEDS	Maximum Application RATE / Surface Acre	Directions and Timing
Emergent aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, non-irrigation canals, rivers and streams that are quiescent or slow moving.	4.0 lbs. acid equivalent	Direct application to the foliage when weeds are actively growing. The maximum rate may be needed for mature plants or dense growth.

### RESTRICTIONS AND LIMITATIONS FOR SURFACE APPLICATIONS TO EMERGENT AQUATIC WEEDS

Do not exceed 4.0 lbs. acid equivalent per surface acre per application.

Do not make a broadcast application within 21 days of previous broadcast application. Spot treatments are permitted. Fish breathe dissolved oxygen in the water and decaying weeds also use oxygen. When treating continuous, dense weed masses, it may be appropriate to treat only part of the infestation at a time. For example, apply the product in lanes separated by untreated strips that can be treated after vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Waters having limited and less dense weed infestations may not require partial treatments. Other local factors such as water exchange and sediment load can also influence the dissolved oxygen level.

Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for aquatic applications.

## Water Use:

- 1. Water for irrigation or sprays:
  - A. If treated water is intended to be used only for crops or non-crop areas that are labeled for direct treatment with 2,4-D such as pastures, turf or cereal grains, the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2,4-D aquatic application.
  - B. Due to potential phytotoxicity considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix sprays for plants grown in commercial nurseries and greenhouses; and other plants or crops that are not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:

i. A setback distance from functional water intake(s) of  $\geq$ 600 ft. was used for the application, or,

ii. A waiting period of 7 days from the time of application has elapsed, or,

iii. An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less at the water intake. Wait at least 3 days after application before initial sampling at water intake.

- 2. Drinking water (potable water):
  - A. Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2,4-D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb. Applicators should consider the unique characteristics of the treated waters to assure that 2,4-D concentrations in potable water do not exceed 70 ppb at the time of consumption.
    - B. For floating and emergent weed applications, the drinking water setback distance from functioning potable water intakes is ≥600 ft.
    - C. If no setback distance of ≥600 ft. is used for the application, applicators or the authorizing organization must provide a drinking water notification prior to a 2,4-D application to the party responsible for a public water supply or to individual private water users. Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of a water use restrictions when this product is applied to potable water.

The following is an example of an example of notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit. Example: Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting must include the day and time of application. Posting may be removed if analysis of a sample collected at the intake 3 or more days following application shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 7 days following application, whichever occurs first.



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AQUATIC WEED CONTROL (irrigation ditchbank application)

(Amines, salts, acid and butoxyethanol ester only)

Text of notification: Wait 7 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested at least 3 days after application and is demonstrated by assay to contain not more than 70 ppb 2,4-D (100 ppb for irrigation or sprays). Application Date: \_\_\_\_\_ Time: \_\_\_\_\_.

D. Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:

i. A setback distance from functional water intake(s) of ≥600 ft. was used for the application, or,

ii. A waiting period of at least 7 days from the time of application has elapsed, or,

iii. An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than 3 days after 2,4-D application. Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515, 555, other methods for 2,4-D as may be listed in Title 40CFR, Part 141.24, or

Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW-846.

- E. Note: Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.
- F. Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes.

#### 3. Swimming (2,4-D butoxyethanol ester only):

- A. Do not swim in treated water for a minimum of 24 hours after application.
- B. Users must provide the following notification prior to performing a 2,4-D BEE application. Notification to the party responsible for the public swimming area or to individual private users must be done in a manner to assure that the party is aware of the swimming restrictions when this product is applied to water. The following is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit. Example: Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points.

Text of Notification: Do not swim in treated water for a minimum of 24 hours after application. Application Date: \_\_\_\_\_ Time: \_\_\_\_\_ .

- 4. Except as stated above, there are no restrictions on using water from treated areas for swimming, fishing, watering livestock or domestic purposes.
  - For EPA chemical numbers, reentry, application method and application equipment: See Aquatic Weed Control (ditchbank application).

## AQUATIC WEED CONTROL

(Surface application or subsurface injection for submersed weeds) (Amines, salts, acid and butoxyethanol ester only)

AQUATIC SITES WITH SUBMERSED WEEDS	Maximum Application RATE	Directions and Timing
Aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, canals, rivers and streams that are quiescent or slow moving	10.8 lbs. acid equivalent per acre foot (see Table 1 below)	For best results, apply in spring or early summer. A second treatment may be needed when weeds show signs of recovery, but no later than September in most areas.

Table 1	AMOUNT TO APPLY FOR A TARGET SUBSURFACE CONCENTRATION			
Surface Area	Average Depth	For typical conditions – 2 ppm (2,4-D a.e./acre)	For difficult conditions – 4 ppm * (2,4-D a.e./acre)	
1 acre	1 ft.	5.4 lbs.	10.8 lbs.	
	2 ft.	10.8 lbs.	21.6 lbs.	
	3 ft.	16.2 lbs.	32.4 lbs.	
	4 ft.	21.6 lbs.	43.2 lbs.	
	5 ft.	27.0 lbs.	54.0 lbs.	

\* Examples include spot treatments of pioneer colonies of Eurasian Water Milfoil and certain difficult to control aquatic species.



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# AQUATIC WEED CONTROL

(irrigation ditchbank application) (Amines, salts, acid and butoxyethanol ester only)

### RESTRICTIONS AND LIMITATIONS FOR AQUATIC SITES WITH SUBMERSED WEEDS

Do not exceed 10.8 lbs. acid equivalent per acre foot. Fish breathe oxygen in the water and a water-oxygen ratio must be maintained. Decaying weeds use up oxygen, but during the period when applications should be made, the weed mass is fairly sparse and the weed decomposition rate is slow enough that the water-oxygen ratio is not disturbed by treating the entire area at one time. If treatments must be applied later in the season when the weed mass is dense and repeat treatments are needed, apply product in lanes, leaving buffer strips which can then be treated when vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Do not apply within 21 days of previous application. When treating moving bodies of water, applications must be made while traveling upstream to prevent concentration of 2,4-D downstream from the application. Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for such use.

#### Water Use:

- . Water for irrigation or sprays:
  - A. If treated water is intended to be used only for crops or non-crop areas that are labeled for direct treatment with 2,4-D such as pastures, turf or cereal grains, the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2,4-D aquatic application.
  - B. Due to potential phytotoxicity and/or residue considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix sprays for unlabeled crops, non-crop areas or other plants not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:
    i. A setback distance described in the Drinking Water Setback Table was used for the application, or,

ii. A waiting period of 21 days from the time of application has elapsed, or,

iii. An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less at the water intake. See Table 3 for the waiting period after application but before taking the initial sampling at water intake.

- 2. Drinking water (potable water):
  - A. Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2,4-D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb. Applicators should consider the unique characteristics of the treated waters to assure that 2,4-D concentrations in potable water do not exceed 70 ppb at the time of consumption.
  - B. For submersed weed applications, the drinking water setback distances from functioning potable water intakes are provided in Table 2 Drinking Water Setback Distance (below).
  - C. If no setback distance from the Drinking Water Setback Table (Table 2) is to be used for the application, applicators or the authorizing organization must provide a drinking water notification and an advisory to shut off all potable water intakes prior to a 2,4-D application. Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water use restrictions when this product is applied to potable water.

The following is an example of an example of notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit. Example: Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting should include the day and time of application. Posting may be removed if analysis of a sample collected at the intake no sooner than stated in Table 3 (below) shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 21 days following application, whichever occurs first.

Text of notification: Wait 21 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested no sooner than (insert days from Table 3) and is demonstrated by assay to contain not more than 70 ppb 2,4-D (100 ppb for irrigation or sprays). Application Date: \_\_\_\_\_ Time: \_\_\_\_\_.

D. Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:

i. A setback distance described in the Drinking Water Setback Distance Table was used for the application, or, ii. A waiting period of at least 21 days from the time of application has elapsed, or,

iii. An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than stated in Table 3. Analysis of samples must be completed by a laboratory that is certified under The Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515, 555, other methods for 2,4-D as may be listed in Title 40CFR, Part 141.24, or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW-846.



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- E. Note: Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.
- F. Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes.
- 3. Swimming (2,4-D butoxyethanol ester only):
  - A. Do not swim in treated water for a minimum of 24 hours after application.
  - B. Users must provide the following notification prior to performing a 2,4-D BEE application. Notification to the party responsible for the public swimming area or to individual private users must be done in a manner to assure that the party is aware of the swimming restrictions when this product is applied to water. The following is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit.
    Example: Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet

of shoreline past the application should be located every 250 feet including the shoreline of the treated area and up to 250 feet including the shoreline past the application site to include immediate public access points.

Text of Notification: Do not swim in treated water for a minimum of 24 hours after application.

Application Date: \_\_\_\_\_ Time: \_\_\_\_\_.

4. Except as stated above, there are no restrictions on using water from treated areas for swimming, fishing, watering livestock or domestic purposes.

#### Table 2 Drinking Water Setback Distance For Submersed Weed Applications

#### APPLICATION

RATE and Minimum Setback Distance (feet) from functioning potable water intake				
1 ppm*	2 ppm*	3 ppm*	4 ppm*	
600	1200	1800	2400	

\* ppm acid equivalent target water concentration

# Table 3 Sampling for Drinking Water Analysis After 2,4-D Application For Submersed Weed Applications

Minimum Days After Application Before Initial Water Sampling at the functioning potable water intake			
1 ppm*	2 ppm*	3 ppm*	4 ppm*
5	10	10	14

\* ppm acid equivalent target water concentration

• For EPA chemical numbers, reentry, application method and application equipment: See Aquatic Weed Control (ditchbank application).