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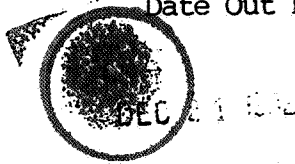
Atrazine / Review #47 / 14 pages / 12.21.82

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Date Out EFB:

To: Taylor
Product Manager 25
Registration Division (TS-767)



From: Emil Regelman, (Acting) Chief
Review Section No. 1
Environmental Fate Branch
Hazard Evaluation Division (TS-769)

COPY

Attached please find the environmental fate review of:

Reg./File No: 100-439

Chemical: Atrazine

Type Product: Herbicide

Product Name: AAtrex 80W

Company Name: Ciba Geigy

Submission Purpose: add uses on sugarcane

ZBB Code: 3 (c) 7

ACTION CODE: 335

Date in: 10/18/82

EFB # 23

Date completed: 12/21/82

Tais (level II) Days

63

1.0

Deferrals To:

Ecological Effects Branch

Residue Chemistry Branch

Toxicology Branch

1.0 INTRODUCTION

Ciba-Geigy Corporation has submitted a label for the registration of a new use of the herbicide Atrazine on sugarcane. The use is for the formulations AAtrex 80 W, AAtrex 4L, AAtrex 4LC, and AAtrex Nine-O. No new EC data have been submitted, although previously submitted data are referenced.

2.0 USE DIRECTIONS

Directions for use are appended to this review.

3.0 DISCUSSION OF DATA

No environmental chemistry data were submitted with this application.

4.0 CONCLUSION/RECOMMENDATION

This product is substantially similar to a previously registered product for which the proposed uses have been accepted. This use does not represent a significant new use.

EFB concurs with this registration.



Norma Kay Whetzel
December 21, 1982
Review Section No. 1
Environmental Fate Branch
Hazard Evaluation Division

Supplemental Labeling

AAtrex® 80W Herbicide
EPA Reg. No. 100-439

Preemergence or Postemergence Weed Control in Sugarcane

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

To control weeds specified in the various states, apply AAtrex 80W alone or in tank mix combination with Karmex® or Evik®. Broadcast aerially in a minimum of 5 gal of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gal per acre, unless indicated otherwise. Repeat treatments, where needed, may be applied broadcast, band, or interline as suggested with the final application being prior to "close-in." Do not exceed the rate of herbicide suggested for any one crop of sugarcane.

Note: Where high rates of AAtrex are used alone or in tank mix combinations with other herbicides, apply in a minimum of 1 gal of water for each 1 lb of product applied per acre.

Aerial application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply AAtrex 80W alone by aircraft at a minimum upwind distance of 400 ft from sensitive plants, or apply AAtrex 80W + Evik or Karmex at a minimum upwind distance of 500 ft from sensitive plants.

Florida

For control of emerged pellitory weed: Apply 0.5-0.75 lb/A in at least 40 gal of water as a directed spray by ground equipment prior to "close-in." Add 4 qt of surfactant for each 100 gal of spray. Thoroughly cover weed foliage.

For control of alexandergrass, large crabgrass, pellitory (artillery) weed, and spiny amaranth, use one of the following methods at planting or ratooning:

1. Apply 5 lb/A preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 2.5 lb/A. Treat before weeds exceed 1.5 inches in height.

2. Apply 1-3 times, as needed, at 2.5 lb/A postemergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

Hawaii

For control of ageratum, crabgrass, fireweed, popolo, goosegrass (wiregrass), guineagrass, swollen fingergrass, morning-glory and hialoa in plant or ratoon sugarcane, apply AAtrex 80W plus Karmex 80W, or AAtrex 80W plus Evik 80W, using one of the following methods:

1. Apply a tank mixture of 2.5-5 lb of AAtrex 80W plus 2.5-5 lb of Karmex 80W per acre before sugarcane and weeds emerge, either after planting or after harvesting plant crop (for ratoon crop). A second application at the same rates may be applied, as needed, after the sugarcane and weeds emerge. A third application at 2.5-3 lb of AAtrex 80W plus 2.5-3 lb of Karmex 80W per acre may be applied, as needed, to emerged sugarcane and weeds. Use the minimum preemergence rates on nonirrigated sugarcane (high rainfall areas). Also use the lower rates in the rate range for land first cropped to sugarcane and for light weed infestations.

For best results when weeds are emerged, add a nonionic surfactant to the spray at rates equivalent to 1-2 qt/100 gal and apply as a directed spray before weeds exceed 1.5 inches in height.

Precaution: Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

2. Apply a tank mixture of 2.5-5 lb of AAtrex 80W plus 5-10 lb of Evik 80W per acre before sugarcane and weeds emerge. A second application at 2.5-5 lb of AAtrex 80W plus 2.5-5 lb of Evik 80W per acre may be made, as needed, postemergence to sugarcane and emerged weeds. A third application at 2.5-3 lb of AAtrex 80W plus 2.5-5 lb of Evik 80W per acre may be applied to emerged weeds, as needed, prior to close-in.

Texas

For control of barnyardgrass, pigweed, purslane and sunflower, in plant or ratoon sugarcane, apply AAtrex 80W alone or AAtrex 80W plus Evik 80W, using one of the following methods:

1. Apply 5 lb/A of AAtrex 80W preemergence. Follow with one or two applications, as needed, at 3.75 lb/A postemergence to sugarcane and weeds. For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 qt/100 gal to the spray and apply before weeds exceed 1.5 inches in height.
2. Apply 2.5-5 lb of AAtrex 80W plus 1.5-2.5 lb of Evik 80W per acre interline or over-the-top of plant or ratoon sugarcane and weeds, before or after they emerge. Add a nonionic surfactant at the rate of 2 qt/100 gal of spray mixture. Follow with one or two repeat applications, as needed. Use the higher rate of AAtrex 80W plus Evik 80W for heavier weed infestations.

Precautions: (1) Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane. (2) Do not apply after "close-in." (3) Do not apply more than 12.5 lb/A of AAtrex 80W to any one crop of sugarcane.

Refer to the AAtrex 80W product label for further directions, precautions, and limitations.

This label must be in the possession of the user at the time of application.

AAtrex® trademark of CIBA-GEIGY for atrazine

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

Supplemental Labeling

AAtrex® 4L Herbicide
EPA Reg. No. 100-497

Preemergence or Postemergence Weed Control in Sugarcane

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

To control weeds specified in the various states, apply AAtrex 4L alone or in tank mix combination with Karmex® or Evik®. Broadcast aerially in a minimum of 5 gal of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gal per acre, unless indicated otherwise. Repeat treatments, where needed, may be applied broadcast, band, or interline as suggested with the final application being prior to "close-in." Do not exceed the rate of herbicide suggested for any one crop of sugarcane.

Note: Where high rates of AAtrex are used alone or in tank mix combinations with other herbicides, apply in a minimum of 1 qt of water for each 1 qt of product applied per acre.

Aerial application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply AAtrex 4L alone by aircraft at a minimum upwind distance of 400 ft from sensitive plants, or apply AAtrex 4L + Evik or Karmex at a minimum upwind distance of 500 ft from sensitive plants.

Florida

For control of emerged pellitory weed: Apply 0.8-1.2 pt/A in at least 40 gal of water as a directed spray by ground equipment prior to "close-in." Add 4 qt of surfactant for each 100 gal of spray. Thoroughly cover weed foliage.

For control of alexandergrass, large crabgrass, pellitory (artillery) weed, and spiny amaranth, use one of the following methods at planting or ratooning:

1. Apply 8 pt/A preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 4 pt/A. Treat before weeds exceed 1.5 inches in height.

2. Apply 1-3 times, as needed, at 4 pt/A postemergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

Hawaii

For control of ageratum, crabgrass, fireweed, popolo, goosegrass (wiregrass), guineagrass, swollen fingergrass, morning-glory and hialoa in plant or ratoon sugarcane, apply AAtrex 4L plus Karmex 80W, or AAtrex 4L plus Evik 80W, using one of the following methods:

1. Apply a tank mixture of 4-8 pt of AAtrex 4L plus 2.5-5 lb of Karmex 80W per acre before sugarcane and weeds emerge, either after planting or after harvesting plant crop (for ratoon crop). A second application at the same rates may be applied, as needed, after the sugarcane and weeds emerge. A third application at 4-4.8 pt of AAtrex 4L plus 2.5-3 lb of Karmex 80W per acre may be applied, as needed, to emerged sugarcane and weeds. Use the minimum preemergence rates on nonirrigated sugarcane (high rainfall areas). Also use the lower rates in the rate range for land first cropped to sugarcane and for light weed infestations.

For best results when weeds are emerged, add a nonionic surfactant to the spray at rates equivalent to 1-2 qt/100 gal and apply as a directed spray before weeds exceed 1.5 inches in height.

Precaution: Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

2. Apply a tank mixture of 4-8 pt of AAtrex 4L plus 5-10 lb of Evik 80W per acre before sugarcane and weeds emerge. A second application at 4-8 pt of AAtrex 4L plus 2.5-5 lb of Evik 80W per acre may be made, as needed, postemergence to sugarcane and emerged weeds. A third application at 4-4.8 pt of AAtrex 4L plus 2.5-5 lb of Evik 80W per acre may be applied to emerged weeds, as needed, prior to close-in.

Texas

For control of barnyardgrass, pigweed, purslane and sunflower, in plant or ratoon sugarcane, apply AAtrex 4L alone or AAtrex 4L plus Evik 80W, using one of the following methods:

1. Apply 8 pt/A of AAtrex 4L preemergence. Follow with one or two applications, as needed, at 6 pt/A postemergence to sugarcane and weeds. For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 qt/100 gal to the spray and apply before weeds exceed 1.5 inches in height.
2. Apply 4-8 pt of AAtrex 4L plus 1.5-2.5 lb of Evik 80W per acre interline or over-the-top of plant or ratoon sugarcane and weeds, before or after they emerge. Add a nonionic surfactant at the rate of 2 qt/100 gal of spray mixture. Follow with one or two repeat applications, as needed. Use the higher rate of AAtrex 4L plus Evik 80W for heavier weed infestations.

Precautions: (1) Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane. (2) Do not apply after "close-in." (3) Do not apply more than 20 pt/A of AAtrex 4L to any one crop of sugarcane.

Refer to the AAtrex 4L product label for further directions, precautions, and limitations.

This label must be in the possession of the user at the time of application.

AAtrex® trademark of CIBA-GEIGY for atrazine

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

GH:bw

October 7, 1982

Supplemental Labeling

AAtrex® 4LC Herbicide
EPA Reg. No. 100-535

Preemergence or Postemergence Weed Control in Sugarcane

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

To control weeds specified in the various states, apply AAtrex 4LC alone or in tank mix combination with Karmex® or Evik®. Broadcast aerially in a minimum of 5 gal of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gal per acre, unless indicated otherwise. Repeat treatments, where needed, may be applied broadcast, band, or interline as suggested with the final application being prior to "close-in." Do not exceed the rate of herbicide suggested for any one crop of sugarcane.

Note: Where high rates of AAtrex are used alone or in tank mix combinations with other herbicides, apply in a minimum of 1 qt of water for each 1 qt of product applied per acre.

Aerial application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply AAtrex 4LC alone by aircraft at a minimum upwind distance of 400 ft from sensitive plants, or apply AAtrex 4LC + Evik or Karmex at a minimum upwind distance of 500 ft from sensitive plants.

Florida

For control of emerged pellitory weed: Apply 0.8-1.2 pt/A in at least 40 gal of water as a directed spray by ground equipment prior to "close-in." Add 4 qt of surfactant for each 100 gal of spray. Thoroughly cover weed foliage.

For control of alexandergrass, large crabgrass, pellitory (artillery) weed, and spiny amaranth, use one of the following methods at planting or ratooning:

1. Apply 8 pt/A preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 4 pt/A. Treat before weeds exceed 1.5 inches in height.

2. Apply 1-3 times, as needed, at 4 pt/A postemergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

Hawaii

For control of ageratum, crabgrass, fireweed, popolo, goose-grass (wiregrass), guineagrass, swollen fingergrass, morning-glory and hialoa in plant or ratoon sugarcane, apply AAtrex 4LC plus Karmex 80W, or AAtrex 4LC plus Evik 80W, using one of the following methods:

1. Apply a tank mixture of 4-8 pt of AAtrex 4LC plus 2.5-5 lb of Karmex 80W per acre before sugarcane and weeds emerge, either after planting or after harvesting plant crop (for ratoon crop). A second application at the same rates may be applied, as needed, after the sugarcane and weeds emerge. A third application at 4-4.8 pt of AAtrex 4LC plus 2.5-3 lb of Karmex 80W per acre may be applied, as needed, to emerged sugarcane and weeds. Use the minimum preemergence rates on nonirrigated sugarcane (high rainfall areas). Also use the lower rates in the rate range for land first cropped to sugarcane and for light weed infestations.

For best results when weeds are emerged, add a nonionic surfactant to the spray at rates equivalent to 1-2 qt/100 gal and apply as a directed spray before weeds exceed 1.5 inches in height.

Precaution: Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

2. Apply a tank mixture of 4-8 pt of AAtrex 4LC plus 5-10 lb of Evik 80W per acre before sugarcane and weeds emerge. A second application at 4-8 pt of AAtrex 4LC plus 2.5-5 lb of Evik 80W per acre may be made, as needed, postemergence to sugarcane and emerged weeds. A third application at 4-4.8 pt of AAtrex 4LC plus 2.5-5 lb of Evik 80W per acre may be applied to emerged weeds, as needed, prior to close-in.

Texas

For control of barnyardgrass, pigweed, purslane and sunflower, in plant or ratoon sugarcane, apply AAtrex 4LC alone or AAtrex 4LC plus Evik 80W, using one of the following methods:

1. Apply 8 pt/A of AAtrex 4LC preemergence. Follow with one or two applications, as needed, at 6 pt/A postemergence to sugarcane and weeds. For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 qt/100 gal to the spray and apply before weeds exceed 1.5 inches in height.
2. Apply 4-8 pt of AAtrex 4LC plus 1.5-2.5 lb of Evik 80W per acre interline or over-the-top of plant or ratoon sugarcane and weeds, before or after they emerge. Add a nonionic surfactant at the rate of 2 qt/100 gal of spray mixture. Follow with one or two repeat applications, as needed. Use the higher rate of AAtrex 4LC plus Evik 80W for heavier weed infestations.

Precautions: (1) Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane. (2) Do not apply after "close-in." (3) Do not apply more than 20 pt/A of AAtrex 4LC to any one crop of sugarcane.

Refer to the AAtrex 4LC product label for further directions, precautions, and limitations.

This label must be in the possession of the user at the time of application.

AAtrex® trademark of CIBA-GEIGY for atrazine

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

GH:bw

October 7, 1982

Supplemental Labeling

AAtrex® Nine-O® Herbicide
EPA Reg. No. 100-585

Preemergence or Postemergence Weed Control in Sugarcane

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

To control weeds specified in the various states, apply AAtrex Nine-O alone or in tank mix combination with Karmex® or Evik®. Broadcast aerially in a minimum of 5 gal of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gal per acre, unless indicated otherwise. Repeat treatments, where needed, may be applied broadcast, band, or interline as suggested with the final application being prior to "close-in." Do not exceed the rate of herbicide suggested for any one crop of sugarcane.

Note: Where high rates of AAtrex are used alone or in tank mix combinations with other herbicides, apply in a minimum of 1 gal of water for each 1 lb of product applied per acre.

Aerial application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply AAtrex Nine-O alone by aircraft at a minimum upwind distance of 400 ft from sensitive plants, or apply AAtrex Nine-O + Evik or Karmex at a minimum upwind distance of 500 ft from sensitive plants.

Florida

For control of emerged pellitory weed: Apply 0.4-0.6 lb/A in at least 40 gal of water as a directed spray by ground equipment prior to "close-in." Add 4 qt of surfactant for each 100 gal of spray. Thoroughly cover weed foliage.

For control of alexandergrass, large crabgrass, pellitory (artillery) weed, and spiny amaranth, use one of the following methods at planting or ratooning:

1. Apply 4.4 lb/A preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 2.2 lb/A. Treat before weeds exceed 1.5 inches in height.

2. Apply 1-3 times, as needed, at 2.2 lb/A postemergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

Hawaii

For control of ageratum, crabgrass, fireweed, popolo, goosegrass (wiregrass), guineagrass, swollen fingergrass, morning-glory and hialoa in plant or ratoon sugarcane, apply AAtrex Nine-O plus Karmex 80W, or AAtrex Nine-O plus Evik 80W, using one of the following methods:

1. Apply a tank mixture of 2.2-4.4 lb of AAtrex Nine-O plus 2.5-5 lb of Karmex 80W per acre before sugarcane and weeds emerge, either after planting or after harvesting plant crop (for ratoon crop). A second application at the same rates may be applied, as needed, after the sugarcane and weeds emerge. A third application at 2.2-2.6 lb of AAtrex Nine-O plus 2.5-3 lb of Karmex 80W per acre may be applied, as needed, to emerged sugarcane and weeds. Use the minimum preemergence rates on nonirrigated sugarcane (high rainfall areas). Also use the lower rates in the rate range for land first cropped to sugarcane and for light weed infestations.

For best results when weeds are emerged, add a nonionic surfactant to the spray at rates equivalent to 1-2 qt/100 gal and apply as a directed spray before weeds exceed 1.5 inches in height.

Precaution: Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

2. Apply a tank mixture of 2.2-4.4 lb of AAtrex Nine-O plus 5-10 lb of Evik 80W per acre before sugarcane and weeds emerge. A second application at 2.2-4.4 lb of AAtrex Nine-O plus 2.5-5 lb of Evik 80W per acre may be made, as needed, postemergence to sugarcane and emerged weeds. A third application at 2.2-2.6 lb of AAtrex Nine-O plus 2.5-5 lb of Evik 80W per acre may be applied to emerged weeds, as needed, prior to close-in.

Texas

For control of barnyardgrass, pigweed, purslane and sunflower, in plant or ratoon sugarcane, apply AAtrex Nine-O alone or AAtrex Nine-O plus Evik 80W, using one of the following methods:

1. Apply 4.4 lb/A of AAtrex Nine-O preemergence. Follow with one or two applications, as needed, at 3.3 lb/A postemergence to sugarcane and weeds. For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 qt/100 gal to the spray and apply before weeds exceed 1.5 inches in height.
2. Apply 2.2-4.4 lb of AAtrex Nine-O plus 1.5-2.5 lb of Evik 80W per acre interline or over-the-top of plant or ratoon sugarcane and weeds, before or after they emerge. Add a nonionic surfactant at the rate of 2 qt/100 gal of spray mixture. Follow with one or two repeat applications, as needed. Use the higher rate of AAtrex Nine-O plus Evik 80W for heavier weed infestations.

Precautions: (1) Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane. (2) Do not apply after "close-in." (3) Do not apply more than 12.5 lb/A of AAtrex Nine-O to any one crop of sugarcane.

Refer to the AAtrex Nine-O product label for further directions, precautions, and limitations.

This label must be in the possession of the user at the time of application.

AAtrex® trademark of CIBA-GEIGY for atrazine

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

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October 7, 1982