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55947-20

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

log 11

AUG 14 1991

Rhonda Hotop
Sandoz Crop Protection Corporation
1300 E. Touhy Avenue
Des Plaines, IL 60018

Dear Ms. Hotop:

Subject: Revised Label Text - Addition of Non-Irrigation
Ditchbanks in Directions For Use
Banvel 720 Herbicide
EPA Registration No. 55947-20
Your Submission Dated July 25, 1991

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following provisions:

1) Under the Statement of Practical Treatment, reinstate the following statement as per the label accepted on November 8, 1989:

"If swallowed, drink 1 or 2 glasses of water and induce vomiting by sticking finger down back of throat. Never induce vomiting or give anything by mouth to an unconscious person."

2) Under the Precautionary Statements, add the statement "When handling this product, wear chemical resistant gloves."

3) Page 3 of the Directions For Use booklet contains the statement "Do not graze dairy animals on treated areas within 7 days after application." With this statement, add the following additional precautions:

"Do not cut grass for hay in treated areas within 30 days after application. Remove meat animals from treated areas 3 days prior to slaughter."

CONCURRENCES							
SYMBOL	H7505C						
SURNAME	D. KENNY						
DATE	12/12/91						

EPA Form 1320-1 (12-70) *U.S.GPO:1989-624-485/10186 OFFICIAL FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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A stamped copy is enclosed for your records. Please submit five (5) final printed copies for the referenced label, incorporating the above changes.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

CONCURRENCES							
SYMBOL	H7505C						
SURNAME	D. KENNY						
DATE	8/12/91						

EPA Form 1320-1 (12-70) *U.S.GPO:1989-624-485/10186 OFFICIAL FILE COPY

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(Container Label)

BANVEL® 720 Herbicide

WATER SOLUBLE INDUSTRIAL HERBICIDE FOR CONTROL OF BRUSH AND BROADLEAF WEEDS ON RIGHTS-OF-WAY, FOREST BRUSH, FENCE ROWS, NON-IRRIGATION DITCHBANKS, WASTELAND, AND SIMILAR NONCROPLAND AREAS

Active Ingredients:

Dimethylamine salt of dicamba

(3,6-dichloro-*p*-anisic acid)*..... 12.82%

Dimethylamine salt of 2,4-dichlorophenoxyacetic acid**.. 24.58%

Inert Ingredients: 62.60%

TOTAL.... 100.00%

*This product contains 10.6% 3,6-dichloro-*p*-anisic acid (dicamba) or 1 lb. per gallon (120 g/L).

**This product contains 20.4% 2,4-dichlorophenoxyacetic acid (2,4-D) or 1.9 lbs. per gallon (228 g/L).

"Isomer specific by AOAC method 6.D01-5.

SHAKE WELL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

CAUTION

See side panel for additional precautionary statements

EPA Reg. No. 55947-20

EPA Est. No. 55947-TX-1

Net Contents: _____

Sandoz Crop Protection Corporation

Des Plaines, IL 60018

ACCEPTED
with COMMENTS
by EPA Letter Dated:

July 14 1991

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

55947-20

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. ~~Avoid breathing spray mist.~~ Avoid contact with skin, eyes, or clothing. In case of contact, wash exposed skin with plenty of soap and water; for eyes flush with water for 15 minutes and get medical attention.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Apply this product only as directed on label.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

DIRECTIONS FOR USE

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

Do not apply this product through any type of irrigation system.

Refer to the DIRECTIONS FOR USE booklet attached to this container for proper use directions and additional precautionary statements.

STORAGE AND DISPOSAL

PROHIBITIONS

Do not contaminate water, food or feed by storage or disposal.

STORAGE

Store in original container in a well-ventilated area separately

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from fertilizer, feed and foodstuffs. Avoid cross-contamination with other pesticides. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.

PESTICIDE DISPOSAL

Pesticide wastes are toxic. Triple rinse pesticide from containers and use rinsates in the pesticide application. Improper disposal of excess pesticide, spray mixture, or rinsate, is a violation of Federal Law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

Plastic or Metal: After triple rinsing (or equivalent), offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities, such as burning of plastic containers. If burned, stay out of smoke.

LIMITATION OF WARRANTY AND LIMITATION OF LIABILITY

NOTICE: Read this Limitation of Warranty and Limitation of Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Sandoz or seller. All such risks shall be assumed by buyer or user. Sandoz warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, under normal use conditions, subject to the risks described above. Sandoz makes no other express or implied warranty of fitness or of merchantability or any other express or implied warranty. In no event shall Sandoz or seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. The exclusive remedy of the user or buyer, and the exclusive liability of Sandoz or seller for any and all claims, losses, injuries or damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use or handling of this product, shall be the return of the purchase price of the product or, at the election of Sandoz or seller, the replacement of the product.

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Sandoz and seller offer this product, and buyer and user accept it, subject to the foregoing limitations of warranty and limitation of liability, which may not be modified by any oral or written agreement.

R.H. 7/25/91

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SANDOZ CROP PROTECTION

E.P.A. Reg. No. 55947-20

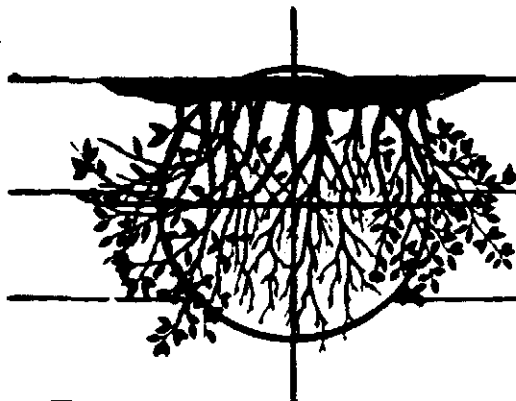
WATER SOLUBLE INDUSTRIAL
HERBICIDE FOR BRUSH AND
BROADLEAF WEED CONTROL

THIS LABELING MUST BE IN
THE POSSESSION OF THE
USER AT THE TIME OF
THE PESTICIDE APPLICATION

IT IS A VIOLATION OF FEDERAL
LAW TO USE THIS PRODUCT IN
A MANNER INCONSISTENT
WITH ITS LABELING

DIRECTIONS FOR USE

HERBICIDE



Banvel 720

Banvel 720

HERBICIDE

THIS LABELING MUST BE IN THE
POSSESSION OF THE USER AT
THE TIME OF THE PESTICIDE
APPLICATION.

NOTICE: READ "LIMITED
WARRANTY AND LIABILITY"
ON THE CONTAINER BEFORE
BUYING OR USING. IF TERMS
ARE NOT ACCEPTABLE, RETURN
AT ONCE UNOPENED.



PROSPER WITH
PESTICIDES BY
USING THEM
PROPERLY! READ
AND FOLLOW LABEL
DIRECTIONS



SANDOZ
CROP PROTECTION
CORPORATION
2611 PLAINFIELD AVE.

0728200-40-AD

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SEP 1 1989

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BEFORE USING BANVEL 720 INDUSTRIAL HERBICIDE PRECAUTIONS APP

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The following directions apply to BANVEL 720 Herbicide. Do not contaminate irrigation ditches or drinking water supplies. Do not apply this product to sensitive crops. BANVEL 720 Herbicide may be particularly injurious to plants when contacting their most sensitive to BANVEL 720 growing stage. FOLLOW THE DIRECTIONS FOR USING BANVEL 720 HERBICIDE. Do not treat areas where soil or surface washing may with the roots of desirable plants. Avoid making application when winds are blowing from areas where sensitive crops are growing. Always make application

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order to determine the direction of wind. Do not use aerial equipment to apply BANVEL 720 Herbicide to sensitive crops and plants. Broadcast applications of BANVEL 720 Herbicide to seedlings being grown as a crop may result in injury. Select nozzles designed to produce a coarse spray. Do not use nozzles designed to produce a fine spray. Do not graze dairy animals in areas where BANVEL 720 Herbicide has been applied. To avoid injury to desirable plants, BANVEL 720 Herbicide should be thoroughly cleaned. CLEANING SPRAY EQUIPMENT. Consult your local or state extension agent for advice concerning these procedures. BANVEL 720 Water Soluble Herbicide is recommended for use on highway, pipeline, nonselective preparation), fence rows, etc.

MIXING AND APPLICATION

BANVEL 720 Herbicide is a water-soluble formulation which can be applied using water or oil/water emulsions as the carrier. Herbicide adjuvants or other spray additives (emulsifiers, surfactants, wetting agents, drift control agents, or penetrants) may be used for wetting, penetration, or drift control. Read and follow all use recommendations and precautions on the label(s) of product(s) used. A COMPATIBILITY TEST (Page 12 of this booklet) should be made prior to tank mixing.

BANVEL 720 Herbicide may be applied with ground or aerial equipment for broadcast treatments, or with handgun, backpack, or similar types of equipment for treatment of individual clumps or small areas (spot treatments).

NOTE: To prepare oil/water emulsions, half fill spray tank with water. Add a suitable emulsifier. Then, with constant agitation, slowly add the appropriate amount of herbicide followed by the necessary oil (or slowly add a premix of emulsifier and oil). Finally, fill the rest of the tank with water. Maintain vigorous agitation during spray operation to prevent oil and water from forming separate layers.

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SPECIES CONTROLLED

When used as directed, BANVEL 720 Herbicide will control or suppress many herbaceous broadleaf weeds (annual, biennial, and perennial) as well as many unwanted woody plant and vine species. Species controlled include:

ANNUALS

Buckwheel, Wild	Lambquarters
Carpetweed	Morningglory
Chickweed	Mustard
Clover	Pigweed
Cocklebur	Purslane
Daisy, English	Ragweed
Horrid	Smartweed
Knewel	Velvetleaf

BIENNIALS

Ragwort, Tansy	Thistle, Musk
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PERENNIALS

Birdweed, Field	Milkweed
Carrot, Wild	Ragweed, Perennial
(2-leaf Arrowweed)	Sorrel, Sheep
Cock, Curly	Spurge, Leafy
Coyamint	Thistle, Canada
Knawweed, Russian	Toadflax, Dalmatian

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WOODY BRUSH AND VINES

Alder	Persimmon
Ash	Pine
Aspen	Plum, Wild
Basswood	Poplar
Beech	Puncturevine
Birch	Raspberry
Blackberry	Redcedar, Eastern
Cherry	Redvine
Creeping, Virginia	Rose, Multiflora
Crookedbush	Sagebrush
Cucumberbush	Sesuvium
Dogwood	Schinus
Elderberry	(Florida Holly,
Elm	Brazil Pepper tree,
Gum	Christmas-berry)
Hawthorn	Serviceberry
Hemlock	Snowberry
Honeysuckle	Spurge
Ivy, Poison	Sumac
Kudzu	Sycamore
Locust	Trumpet creeper
Maple	Waxmyrtle
Oak	Willow
Olive, Russian	Witchazel
Suppression	Yaupon

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DIRECTIONS FOR USE

Regardless of the species to be controlled, spray volumes should be high enough to allow for good spray coverage. Make applications when weeds and brush are actively growing. The addition of surfactants can increase control. Biennials are best controlled when treated in the rosette stage. Regrowth may occur on resistant species. Retreatments may be made as needed; however, do not exceed a total of 6 gallons (6 lbs. a.i. dicamba + 12 lbs. a.i. 2,4-D) of BANVEL 720 Herbicide per treated acre during a growing season. To control additional weed species, BANVEL 720 Herbicide may be tank mixed with any of the products listed on pages 10-11.

HERBACEOUS BROADLEAF WEED CONTROL: Apply 1 to 4 quarts BANVEL 720 Herbicide in 20 to 100 gallons of water per treated acre. 1 to 2 quarts of BANVEL 720 Herbicide is recommended for annuals, 2 to 4 quarts for biennials and easy-to-kill perennials, and 4 quarts for established perennials. Do not apply more than 3 gallons of product per treated acre.

BRUSH AND VINE CONTROL - High Volume Foliar Spot Applications: Mix 1 to 3 gallons of BANVEL 720 Herbicide in enough water to make 100 gallons of spray mix. Spray volume applied will depend on the size and density of the brush to be treated, but do not apply more than 3 gallons of product per treated acre. Direct the spray to treat all foliage, stems, and root collars to wet.

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BRUSH AND VINE CONTROL - Broadcast Applications with Ground Equipment: Apply 1 to 3 gallons BANVEL 720 Herbicide in 20 to 100 gallons of water per treated acre. Spray volume applied will depend on the size and density of the brush to be treated, but do not apply more than 3 gallons of product per treated acre. Spray all foliage, stems, and root collars to wet.

AERIAL APPLICATIONS: Aerial applications may be made to control either herbaceous or woody plants. Apply 1 to 4 quarts BANVEL 720 Herbicide (for herbaceous weeds) or 1 to 3 gallons BANVEL 720 Herbicide (for woody brush and vines) in 5 to 40 gallons of water per treated acre. Coverage is important, so increase spray volume when treating dense stands of brush or weeds. Do not apply more than 3 gallons of product per treated acre.

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TANK MIX TREATMENTS

READ AND FOLLOW THE LABEL OF EACH TANK MIX PRODUCT USED FOR PRECAUTIONARY STATEMENTS, DIRECTIONS FOR USE, AND OTHER RESTRICTIONS. For broader spectrum control, BANVEL 720 Herbicide may be tank mixed with one or more of the following herbicides for noncropland uses (e.g. railroad, highway, pipeline, etc.) including forest management applications, if permitted by product labeling (e.g. 2,4-D). Add water to the spray tank prior to the addition of the tank mix products. Do not premix concentrates.

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Herbicide	Rate (lbs. a.i./treated acre)
Amitrol [†]	1.8 to 8.0
Asulam (Asutor [®])	2.92 to 6.68
Atritol	4.77 to 39.98
Bromacil (Hyvar [®])	1.6 to 24.0
Chloriflurecol (Maintain [®])	2.0 to 3.0
Chlorosulfuron (Toler [®])	0.1875 to 2.25 oz.***
Dalapon	4.25 to 12.75
Dicamba (Banvel [®])	0.25 to 8.0****
Diquet	0.5 to 1.0
Diuron (Karmex [®])	4.0 to 48.0
Fenac (Fenetro [®])	4.5 to 18.0
Fosamine ammonium (Krenite [®])	6.0 to 12.0
Glyphosate (Roundup [®])	0.75 to 3.75
Hexazinone (Velpar [®])	0.675 to 10.8
Imazapyr** (Arsenal [®])	0.5 to 1.5
Limit [®]	0.625
Maleic hydrazide (Royal Sto-Gro [®])	2.25 to 4.5
Methaldehyde (Ember [®])	0.25 to 1.0
MSMA	1.0 to 2.475
Paraquat [†]	0.5
Picloram [†] (Tordon [®])	2.0 to 3.0
Simazine [†] (Princep [®])	4.8 to 40.0

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Sulfometuron methyl (Oust [®])	0.75 to 9.0 oz.***
Terbutyluron (Spoke [®])	1.0 to 16.0
Triclopyr (Garlon [®])	0.75 to 12.0
2,4-D	0.475 to 16.92****
2,4-DP	0.5 to 11.1

Due to variations that may occur in formulated products and specific use ingredients (e.g. water supplies), a COMPATIBILITY TEST as described on page 12 of this booklet is recommended prior to actual tank mixing.

[†] Restricted use pesticides limited to certified applicators.

** Imazapyr is the proposed common name for Arsenal. Limit does not have a common name.

*** Toler = 0.1875 to 2.25 oz. a.i./A (0.25 to 3.0 oz. product/A)
Oust = 0.75 to 9.0 oz. a.i./A (1.0 to 12.0 oz. product/A)

**** Do not exceed a total of 8 lbs. a.i. dicamba per treated acre per growing season. (BANVEL 720 Herbicide contains 1 lb. a.i. dicamba per gallon).

***** Use of extremely hard water (500 ppm) may cause this product to form a precipitate when used in a tank mix with BANVEL 720 Herbicide. Do not exceed 16 lbs. total 2,4-D acid equivalent per treated acre per growing season. (BANVEL 720 Herbicide contains the equivalent of 1.9 lbs./gal. 2,4-D acid).

[†] Not registered for use in California.

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COMPATIBILITY TEST

Before mixing in the spray tank, it is advisable to test compatibility by mixing all components in a small container in proportionate quantities (see following table).

Amount of Herbicide to Add to One Pint of Spray carrier
(Assuming Volume is 25 Gallons per Acre)

HERBICIDE FORMULATIONS	RATE PER ACRE	LEVEL TEASPOONS
Dry	1 lb.	1 1/2
Liquid	1 pt.	1/2

If herbicide(s) do not ball-up or form flakes, sludge, gels, oily films or layers, or other precipitates, then the tested components are compatible. Usually incompatibility in any of the above described forms will occur within 5 minutes after mixing.

If components are incompatible, the use of a compatibility agent is recommended. Run the above COMPATIBILITY TEST with a suitable compatibility agent (1/4 teaspoon is equivalent to 2 pints per 100 gallons of spray solution).

PROCEDURE FOR CLEANING SPRAY EQUIPMENT

The steps listed below are suggested for thorough cleaning of spray equipment following applications of BANVEL 720 Herbicide or tank mixes of BANVEL 720 Herbicide plus 2,4-D amine.

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- 1) Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Flush by operating sprayer until the system is purged of the rinse water.
- 2) Fill tank with water while adding 1 quart of household ammonia for every 25 gallons of water. Operate the pump to circulate the ammonia solution through the sprayer system for 15 to 20 minutes and discharge a small amount of the ammonia solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
- 3) Flush the solution out of the spray tank through the boom.
- 4) Remove the nozzles and screens and flush the system with two full tanks of water.

The steps listed below are suggested for thorough cleaning of spray equipment used to apply BANVEL 720 Herbicide as a tank mix with wettable powders (WP), emulsifiable concentrates (EC), or other types of water-dispersible formulations. BANVEL 720 Herbicide tank mixes with water-dispersible formulations require the use of a water/detergent rinse.

- 5) Complete step 1.
- 6) Fill tank with water while adding 2 lbs. of detergent for every 40 gallons of water. Operate the pump to circulate the detergent solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
- 7) Flush the detergent solution out of the spray tank through the boom.
- 8) Repeat step 1, and follow with steps 2, 3, and 4.

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RON K. GRAPHIC SERVICES, LTD.
DISC 151 - File No. 69
11-12-87 ea/ht H.H.-1, H.H. BU-2(114)
Job No. 1405 BANVEL 720 Booklet
Galley 08

REGISTERED TRADEMARKS

Arsenal® is a Registered Trademark of American Cyanamid Company.

Princep® is a Registered Trademark of Ciba-Geigy Corporation.

Garlon® and Tordon® are Registered Trademarks of

Dow Chemical Company.

Hyvar®, Karmex®, Krenite®, Oust®, Toler®, and Velpar® are Registered

Trademarks of E.I. duPont de Nemours & Co., Incorporated

Spike® is a Registered Trademark of Elanco Products Company.

Emberk® is a Registered Trademark of 3M.

Linir® and Roundup® are Registered Trademarks of Monsanto Agricultural Products Company.

Asulox® is a Registered Trademark of Rhone-Poulenc Chemical Company.

Fenestrol® is a Registered Trademark of Union Carbide Agricultural Products Co., Incorporated

Royal Sto-Gro® is a Registered Trademark of Unkroyal, Incorporated

Maintain® is a Registered Trademark of U.S.

Borax & Chemical Corporation.

Banvel® is a Registered Trademark of Sandoz Ltd.

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NOTES

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11-12-87 ea/ht H.H.-1, H.H. BU-2(114)
Job No. 1405 BANVEL 720 Booklet