

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (TS-757)
WASHINGTON, DC 20460

EPA REGISTRATION NO.

10163-130

DATE OF ISSUANCE

MAR 16 1990

NOTICE OF PESTICIDE:

REGISTRATION
 REREГИSTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

TERM OF ISSUANCE

Until Reregistration

NAME OF PESTICIDE PRODUCT

Gowan Indoxulfan 50 WSB

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Gowan Company
P.O. Box 5569
Yuma, AZ 85366-5569

*166-1274
18/10*

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling change listed below before you release the product for shipment:
 - (a) Add the phrase "EPA Reg. No. 10163-130".
 - (b) Add the following to the end of the Environmental Hazards text:

Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.
 - (c) In the third paragraph under the heading DIRECTIONS FOR USE, revise "MSIA/OSIA approved" to "MSIA/NOSE approved".
 - (d) Revise the Storage and Disposal directions to be consistent with the nature and packaging of this particular product. Both the Pesticide Storage and Container Disposal text need to be modified. Clarify the difference between the outer bag, which presumably can

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

[Handwritten Signature]

DATE

3/14/90

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (TS-761)
WASHINGTON, DC 20460

EPA REGISTRATION NO.

10103-130

DATE OF ISSUANCE

MAR 16 1990

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

TERM OF ISSUANCE

Until Reregistration

NAME OF PESTICIDE PRODUCT

Gowan Endosulfan 50 WSB

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Gowan Company
P.O. Box 5569
Yuma, AZ 85306-5569

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA Section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

2. Make the labeling change listed below before you release the product for shipment:

(a) Add the phrase "EPA Reg. No. 10103-130".

BEST AVAILABLE COPY

(b) Add the following to the end of the Environmental hazards text:

Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

(c) In the third paragraph under the heading DIRECTIONS FOR USE, revise "MSHA/OSHA approved" to "MSHA/NIOSH approved".

(d) Revise the Storage and Disposal directions to be consistent with the nature and packaging of this particular product. Both the Pesticide Storage and Container Disposal text need to be modified. Clarify the difference between the outer bag, which presumably can

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

3/16/90

be resealed, and the water soluble packets, which should not be opened. Delete references to calling FMC and its telephone number. You may insert your own emergency phone number, if one exists.

- (e) In the directions for "Ornamentals (Greenhouse and Out of Doors)" delete the last sentence. A MSHA/NIOSH approved pesticide respirator must be worn during mixing and application whether the product is used outdoors or in greenhouses.
- (f) It is unclear whether the front panel text will also appear in the booklet. If not, then, at the minimum, the product name, EPA Reg. No., signal word (with skull and crossbones), KEEP OUT OF REACH OF CHILDREN, the ingredients statement, and reference to the precautions, including the re-entry limitations, appearing on the container label must appear at the front of the booklet.
- (g) For the water soluble bag label, add the ingredients statement as it appears on the front panel label (rather than "contains 50% endosulfan") Also, add KEEP OUT OF REACH OF CHILDREN above the signal word DANGER.

3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling and type size requirements for various label elements.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA Sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

George T. LaRocca
Product Manager (15)
Insecticide-Rodenticide Branch
Registration Division

GOWAN ENDOSULFAN 50 WSB

FOR AGRICULTURAL USE ONLY

NOT FOR HOMEOWNER OR RESIDENTIAL USE

Active Ingredient:

Endosulfan* 50%
Inert Ingredients 50%

Total 100%

* Hexachlorohexahydromethano-2,4,3-benzodioxathiepin 3-oxide

red [KEEP OUT OF REACH OF CHILDREN DANGER-POISON PELIGRO] red

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la et queto le haya sido explicado ompliamente.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center immediately. If possible, vomiting should be induced under medical supervision. Drink one or two glasses of water and induce vomiting by giving one (1) ounce of syrup of ipecac, if available, or by touching back of throat with finger. Do not induce vomiting or give anything by mouth to a person who is unconscious or convulsing.

IF INHALED: remove victim to fresh air. Apply artificial respiration if indicated. Get medical attention.

IF ON SKIN: Remove contaminated clothing and wash skin with soap and water. Get medical attention.

IF IN EYES: Flush eyes with plenty of water. Call a physician immediately.

Note to Physician: Endosulfan is a central nervous system stimulant absorbable by mouth, inhalation or through contact with skin. It may cause convulsions. There is no specific antidote. Diazepam I.V. is the drug of choice. Barbituric acid derivatives such as Phenobarbital may be used additionally. A neuromuscular blocking agent may be used if convulsions persist. This type of drug may be used only if complete control of respiration can be maintained. Epinephrine derivatives are absolutely contraindicated.

ACCEPTED with COMMENTS in EPA Letter Dated:

MAR 16 1990

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

10163-130

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Fatal if swallowed or inhaled. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Do not breathe vapor. Applicators must wear a long sleeve shirt, trousers, unlined waterproof gloves made of natural rubber or neoprene, full foot covering (such as shoes or boots), head covering (such as a hat), and a pesticide mask or respirator jointly approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 30 CFR Part 11 for protection against endosulfan. Mixers and/or loaders must wear a chemical resistant apron and goggles or face shield in addition to all of the protective equipment specified for applicators. Do not apply or allow to drift to areas occupied by unprotected humans or beneficial animals. Wash thoroughly with soap and water after handling and before smoking or eating. Remove contaminated clothing and wash before reuse.

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ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds and other wildlife. Birds feeding on treated areas may be killed. Do not apply directly to water or wetlands. Due to the risk of runoff and drift, do not apply within a distance of 300 feet of lakes, ponds, streams and estuaries. Shrimp and crab may be killed at all application rates recommended on this label. Do not apply where fish, shrimp, crab and other aquatic life are important resources. This product must not be used in areas where impact on threatened endangered species is likely. Consult your State Fish and Game Agency before applying this product. Apply this product only as specified on this label.

This pesticide is toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

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.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. When mixing, loading and applying this product wear unlined waterproof gloves and a MSHA/OSHA approved pesticide mask or respirator.

RE-ENTRY

Do not enter treated area without appropriate protective clothing for 24 hours.

Protective clothing means, at least, a hat or other suitable head covering, a long sleeved shirt and long legged trousers or a cover all type garment (all of loosely woven fabric covering the body, including the arms and legs), shoes and socks.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, such as the 48 hour reentry interval established by California, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure. An example of such information is given under written warnings. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given when there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information:

DANGER

Area treated with endosulfan on (insert date). Do not enter without appropriate protective clothing for 24 hours (insert State Department of Agriculture's reentry interval, if more restrictive). In case of accidental exposure to pesticide spray or dust, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If in eyes, flush plenty of water. If inhaled, go to an area where the pesticide has not been applied. Get medical attention if needed.

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STORAGE AND DISPOSAL**Pesticide Storage**

Do not store in or around the home.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC collect. (716) 735-3765

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. 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

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refer to attached booklet for additional directions and Crop Use Recommendations.

NET WEIGHT _____ LBS.

Gowan Company

EPA Reg. No. 10163
EPA Est. No. 10163-AZ -1

P.O. Box 5569

Yuma AZ 85366-5569

Hazardous Substance, Solid, N.O.S., (Endosulfan), QRM-E, NA 9188, RQ

Directions for Use of Water Soluble Bags

Packets containing Gowan Endosulfan 50 WSB are water soluble. Do not allow packet to become wet prior to adding to the spray tank. Do not handle with wet hands. Reseal outer bag to protect remaining packets.

To prepare the spray mixture, drop the required number of unopened packets, as determined under crop recommendations into spray tank while filling with water to the desired level. Operate the agitator while mixing. Depending on the water temperature and the degree of agitation, the packets should be completely dissolved within approximately five minutes from the time they were added to the water. Use the specified dosage in the amount of water necessary to give complete coverage of the foliage. Determine the total amount of wettable powder to be added to the spray tank based on the rates in the crop recommendations. For each one pound of wettable powder to be added to the spray tank, use 1 one pound packet. For example, if it is determined that 10 pounds of Gowan Endosulfan 50 WSB should be added to the spray tank, add 10 one pound packets. Do not attempt to break open the water soluble packets. Where dosages are expressed as fractions of pounds, prepare tank load to the lower of the nearest whole pound.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAR 16 1990

GENERAL INSTRUCTIONS

Not for use or storage in or around the home.

Apply the listed amount per acre when insects first appear and repeat as required, unless otherwise noted, to maintain effective control. Use in sufficient water for thorough coverage of listed crops, unless otherwise noted. Coverage of upper and lower leaf surfaces is essential for good control. For ground application, apply recommended amount of pesticide in a minimum of 10 gallons of water per acre on vegetable or row crops. Observe use limitations. If insect control is required beyond the following use patterns, supplement the control program with other suitable pesticides.

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

10163-130

When applying this material by aircraft, mix the recommended amount with sufficient water to provide a minimum of 1 gallon of finished spray per acre on vegetable and field crops, unless otherwise noted, and a minimum of 20 gallons of finished spray per acre on fruit and nut trees and on vines. When applying 4 pounds or more ~~of this material~~, mix in a minimum of 10 gallons of water.

Do not plant root crops other than carrots, potatoes, sweet potatoes, and sugar beets as follow-up crops. Observe days interval between last application and harvest indicated by number in () following the crop name.

CROP USE RECOMMENDATIONS

ALFALFA (Grown for Forage) (21): Meadow spittlebug - apply 1/2 pound per acre one week after eggs begin to hatch, or when first small masses of froth are produced in the crowns of the plant which is usually about the time the alfalfa is 4 to 6 inches tall. Apply in a minimum of 10 gallons of water per acre by ground or 2 gallons of water per acre by air. Do not apply more than once per cutting nor exceed a maximum of three applications per year. Do not graze or cut forage within 21 days of treatment.

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APPLES (21): Apple aphid, Rosy apple aphid, Woolly apple aphid, Apple rust mite, Green fruitworm, Tarnished plant bug, first generation White apple leafhopper - Use 1 pound per 100 gallons of water or a maximum of 5 pounds per acre. Applications made at pink and/or petal fall provide best control of Tarnished plant bug and Green fruitworm. For best control of first generation White apple leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use 1½ pounds per 100 gallons to control Apple aphids and Rosy apple aphids. Do not exceed 3 applications per year or a maximum of 6 pounds total per acre per year. Do not feed cull fruits to animals nor allow livestock to graze in treated orchards.

Apples (30): Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid, Apple Rust Mite, Green Fruitworm, Tarnished Plant Bug, first generation White Apple Leafhopper—Use 1 pound per 100 gallons or a maximum of 6 pounds per acre. Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not feed pomace from treated apples to livestock. Do not feed cull fruits to animals nor allow livestock to graze treated orchards.

Apricots (21), Nectarines (21), Peaches (21): Peach Tree Borer, Lesser Peach Tree Borer—Use 1½ pounds per 100 gallons. **West Coast**—Use 1 to 1½ pounds per 100 gallons. Do not exceed 2 applications per year. **Southeastern States**—Use 3 to 5 pounds per 100 gallons post-harvest, not to exceed 6 pounds per acre. Best control is obtained with a single application during the first week of September. Spray all bark areas from ground level to lower scaffold limbs. **All Uses:** Do not feed cull fruits to animals or allow livestock to graze in treated orchards.

Apricots (30), Nectarines (30), Peaches (30): Cattacing insects (Stink-bug type), Green Peach Aphid, Black Cherry Aphid, Black Peach Aphid, Rusty Plum Aphid, Peach Twig Borer, Green Fruitworm, Peach Silver Mite—Use 1 pound per 100 gallons or a maximum of 4 to 5 pounds per acre. **West Coast**—Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not feed cull fruits to animals or allow livestock to graze treated orchards.

Apricots (30), Nectarines (30), Peaches (30): Cattacing insects (Stink-pounds per acre), Artichoke Plume Moth—Use 2 pounds per acre. Apply in a minimum of 20 gallons of water per acre by ground and in a minimum of 10 gallons of water per acre by air. Do not exceed 2 applications per year.

Barley, Oats, Rye, Wheat: Army Cutworm—Use 1 pound per acre. For aerial application, apply in 2 gallons of diesel fuel oil per acre. **Cereal Leaf Beetle** (Illinois, Indiana, Michigan and Ohio only)—Use ½ to 1 pound per acre. Apply when small larvae are readily found in the field. For aerial application use a minimum of 1 to 2 gallons of water per acre. Do not apply after heads begin to form. Do not exceed 2 applications per year. Do not feed treated forage to livestock.

Beans (Succulent and Dry), Southern Field Peas (3): Black Bean Aphid, Bean Leaf-skeletonizer, Cucumber Beetle, Green Stink Bug, Mexican Bean Beetle, Cowpea Curculio—Use 1 to 2 pounds per acre. For control of Cowpea Curculio make 3 applications at 5-day intervals, starting when the pods are ½-inch long. Do not exceed 3 applications per year. Do not feed treated threshings to livestock or allow livestock to graze in treated fields. Do not use on Lima Beans that are to be removed from the field for processing.

Blueberries: Blueberry Bud Mite—Use 3 pounds per acre in 300 gallons of water. Apply immediately after harvest and repeat 6 to 8 weeks later. Do not apply after buds are well formed. Do not exceed 2 applications per year.

Grapes (7): Grape Leafhopper, Rose Chaler, Grape Phylloxera (leaf form)—Use 1 pound per 100 gallons or 2 to 3 pounds per acre. Do not exceed 3 applications per year or a maximum of 6 pounds per acre per year. Do not use on Baco No 1, Baco Noir, Concord, Seibel 7053 (Chancellor), Seibel 8357 (Colobel), Seibel 13053 (Cascade) varieties of grapes as severe injury is likely to occur.

Kale (21): Cabbage Flea Beetle, Imported Cabbageworm, Harlequin Bug—Use 1½ pounds per acre. Do not exceed one application per season.

Lettuce (14): Cabbage Looper, Green Peach Aphid, Diamondback Moth larvae, Imported Cabbageworm—Use 1½ to 2 pounds per acre. On Head Lettuce, do not exceed 3 applications after thinning. Remove wrapper leaves at harvest. On Leaf Lettuce, do not exceed 2 applications per season. **All Uses:** Do not feed crop refuse to livestock. Do not exceed 6 pounds per acre per year.

Mustard Greens (21): Aphids, Cabbage Looper, Imported Cabbageworm—Use 1½ pounds per acre. Do not exceed one application per season.

Pears (7): Green Fruitworm, Tarnished Plant Bug—Use 1 pound per 100 gallons; 4 to 5 pounds per acre. Apply at white bud or petal fall. Pear Leaf Blister Mite—Apply ½ to 1 pound per 100 gallons as a post harvest or dormant treatment. Pear Psylla—Use 5 pounds per acre in a minimum of 10 gallons of water by aerial application, in 40 gallons of water for semi-concentrate, or in 300 gallons of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control. Consperse Stink Bug, Pear Rust Mite (foliar treatment)—Use 1 pound per 100 gallons, 4 to 5 pounds per acre. Stink Bugs must be wet by spray to obtain control. Consperse Stink Bug (Soil Treatment)—Use 1 pound per 100 gallons; 200 to 400 gallons per acre applied to orchard floor and around trees prior to bloom. **All Uses:** Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not feed cull fruits to animals or allow livestock to graze treated orchards.

NOTE: Aerial application does not result in satisfactory control and should only be employed if impossible to apply by ground.

Peas, Seed Crop Only (1): Pea Aphid, Pea Weevil—Use 1 to 1½ pounds per acre. Do not exceed 2 applications per year. Use only on Peas to be harvested by combine. Do not feed treated vines or threshings to livestock or allow livestock to graze in treated fields.

Pecans: Black Pecan Aphid, Pecan Nut Casebearer, Spittlebug—Use 1½ pounds per 100 gallons. For Casebearer, apply when eggs of first generation appear on tips of the young nuts. Another application may be required after the second generation of eggs is deposited. For Spittlebug, apply when first leaves are half grown and repeat as required. Pecan Leaf Phylloxera—Use 1 to 1½ pounds per 100 gallons when nymphs appear and before they are enclosed in plant tissue. For high populations, use the higher rate. Do not apply after shuck split. Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not graze livestock on orchard crops or grasses in treated areas.

Peppers (1): Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot—Use 1 pound per acre. **Peppers (4):** Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot—Use 2 pounds per acre. Do not exceed 2 applications per season.

Pineapple (for fresh market only) (7): Pineapple Fruit Mite—Use 3 to 4 pounds per acre. Apply at intervals of 7 to 10 days if necessary, particularly during the 40 day period of blooming. Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not feed treated forage or pineapple by-products to livestock.

Grapes (7): Grape Leafhopper, Rose Chafer, Grape Phylloxera (leaf form)—Use 1 pound per 100 gallons or 2 to 3 pounds per acre. Do not exceed 3 applications per year or a maximum of 6 pounds per acre per year. Do not use on Baco No. 1, Baco Noir, Concord, Seibel 7053 (Chancellor), Seibel 8357 (Colobel), Seibel 13053 (Cascade) varieties of grapes as severe injury is likely to occur.

Kale (21): Cabbage Flea Beetle, Imported Cabbageworm, Harlequin Bug—Use 1½ pounds per acre. Do not exceed one application per season.

Lettuce (14): Cabbage Looper, Green Peach Aphid, Diamondback Moth larvae, Imported Cabbageworm—Use 1½ to 2 pounds per acre. On Head Lettuce, do not exceed 3 applications after thinning. Remove wrapper leaves at harvest. On Leaf Lettuce, do not exceed 2 applications per season. **All Uses:** Do not feed crop refuse to livestock. Do not exceed 6 pounds per acre per year.

Mustard Greens (21): Aphids, Cabbage Looper, Imported Cabbageworm—Use 1½ pounds per acre. Do not exceed one application per season.

Pears (7): Green Fruitworm, Tarnished Plant Bug—Use 1 pound per 100 gallons, 4 to 5 pounds per acre. Apply at white bud or petal fall. Pear Leaf Blister Mite—Apply ½ to 1 pound per 100 gallons as a post harvest or dormant treatment. Pear Psylla—Use 5 pounds per acre in a minimum of 10 gallons of water by aerial application, in 40 gallons of water for semi-concentrate, or in 300 gallons of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control. Consperse Stink Bug, Pear Rust Mite (foliar treatment)—Use 1 pound per 100 gallons, 4 to 5 pounds per acre. Stink Bugs must be wet by spray to obtain control. Consperse Stink Bug (Soil Treatment)—Use 1 pound per 100 gallons; 200 to 400 gallons per acre applied to orchard floor and around trees prior to bloom. **All Uses:** Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not feed cull fruits to animals or allow livestock to graze treated orchards.

NOTE: Aerial application does not result in satisfactory control and should only be employed if impossible to apply by ground.

Peas, Seed Crop Only (1): Pea Aphid, Pea Weevil—Use 1 to 1½ pounds per acre. Do not exceed 2 applications per year. Use only on Peas to be harvested by combine. Do not feed treated vines or threshings to livestock or allow livestock to graze in treated fields.

Pecans: Black Pecan Aphid, Pecan Nut Casebearer, Spittlebug—Use 1½ pounds per 100 gallons. For Casebearer, apply when eggs of first generation appear on tips of the young nuts. Another application may be required after the second generation of eggs is deposited. For Spittlebug, apply when first leaves are half grown and repeat as required. Pecan Leaf Phylloxera—Use 1 to 1½ pounds per 100 gallons when nymphs appear and before they are enclosed in plant tissue. For high populations, use the higher rate. Do not apply after shuck split. Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not graze livestock on orchard crops or grasses in treated areas.

Peppers (1): Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot—Use 1 pound per acre. **Peppers (4):** Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot—Use 2 pounds per acre. Do not exceed 2 applications per season.

Pineapple (for fresh market only) (7): Pineapple Fruit Mite—Use 3 to 4 pounds per acre. Apply at intervals of 7 to 10 days if necessary, particularly during the 40 day period of blooming. Do not exceed 2 applications per year or a maximum of 6 pounds per acre per year. Do not feed treated forage or pineapple by-products to livestock.

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SUNFLOWERS (1): Sunflower moth - Use 2 pounds per acre. Do not exceed three applications. Make first application at the onset of bloom. Allow 7 days between repeat applications. Do not feed treated forage to livestock.

SWEET CORN (Fresh Vegetable Use Only) (1): Corn leaf aphid - Use 2 pounds per acre. Corn earworm - Use 3 pounds per acre beginning when silks first appear and continuing until they begin to dry. Allow 5 days between applications. Do not exceed 3 applications per year or a maximum of 6 pounds per acre per year. Do not apply to Sweet Corn to be processed. Do not feed treated forage or ensilage to livestock or allow livestock to graze in treated fields.

SWEET POTATOES (1): Sweet potato flea beetle - Use 1 pound per acre. Begin applications shortly after transplanting or as soon as Flea beetles appear. Do not exceed 3 applications per year.

Tobacco (5): Budworm, Cabbage Looper, Flea Beetle, Green Peach Aphid, Hornworm—SEED BED—Use 1 pound per 100 gallons of water. Apply about 6 gallons of finished spray per 100 square yards. PLANT BED—Green June Bug larvae—Use ½ pound per 100 gallons of water drenching at a rate of 1 gallon per square yard. FIELD—Use 1 to 2 pounds per acre to control above insects. Stink Bugs—Use 2 to 3 pounds per acre. Do not exceed 6 applications per year or a maximum of 6 pounds per acre per year.

Tomatoes (Field and Greenhouse) (2): Blister Beetle, Colorado Potato Beetle, Flea Beetle, Green Peach Aphid, Hornworm, **California only:** Webworm—Use 1 to 2 pounds per acre. Cabbage Looper, Stink Bugs—Use 1½ to 2 pounds per acre. Tomato Fruitworm, Yellowstriped Armyworm—Use 2 pounds per acre. Whitefly—Use 1 pound per 100 gallons; 100 to 200 gallons of water per acre. Do not exceed 6 applications per year or a maximum of 6 pounds per acre per year.

Walnuts: Walnut Aphid—Use 3 to 4 pounds per acre. Do not apply after husk split. Do not exceed 2 applications or 6 pounds per acre per year. Do not graze livestock on orchard crops or grasses in treated areas.

SUNFLOWERS (1): Sunflower moth - Use 2 pounds per acre. Do not exceed three applications. Make first application at the onset of bloom. Allow 7 days between repeat applications. Do not feed treated forage to livestock.

SWEET CORN (Fresh Vegetable Use Only) (1): Corn leaf aphid - Use 2 pounds per acre. Corn earworm - Use 3 pounds per acre beginning when silks first appear and continuing until they begin to dry. Allow 5 days between applications. Do not exceed 3 applications per year or a maximum of 6 pounds per acre per year. Do not apply to Sweet Corn to be processed. Do not feed treated forage or ensilage to livestock or allow livestock to graze in treated fields.

SWEET POTATOES (1): Sweet potato flea beetle - Use 1 pound per acre. Begin applications shortly after transplanting or as soon as Flea beetles appear. Do not exceed 3 applications per year.

Tobacco (5): Budworm, Cabbage Looper, Flea Beetle, Green Peach Aphid, Hornworm—SEED BED—Use 1 pound per 100 gallons of water. Apply about 6 gallons of finished spray per 100 square yards. PLANT BED—Green June Bug larvae—Use ½ pound per 100 gallons of water drenching at a rate of 1 gallon per square yard. FIELD—Use 1 to 2 pounds per acre to control above insects. Stink Bugs—Use 2 to 3 pounds per acre. Do not exceed 6 applications per year or a maximum of 6 pounds per acre per year.

Tomatoes (Field and Greenhouse) (2): Blister Beetle, Colorado Potato Beetle, Flea Beetle, Green Peach Aphid, Hornworm, **California only:** Webworm—Use 1 to 2 pounds per acre. Cabbage Looper, Stink Bugs—Use 1½ to 2 pounds per acre. Tomato Fruitworm, Yellowstriped Armyworm—Use 2 pounds per acre. Whitefly—Use 1 pound per 100 gallons; 100 to 200 gallons of water per acre. Do not exceed 6 applications per year or a maximum of 6 pounds per acre per year.

Walnuts: Walnut Aphid—Use 3 to 4 pounds per acre. Do not apply after husk split. Do not exceed 2 applications or 6 pounds per acre per year. Do not graze livestock on orchard crops or grasses in treated areas.

COMMERCIALLY GROWN ORNAMENTALS

Ornamental Plants

Leatherleaf Fern: Leatherleaf Fern Borer—Use 1 pound per 100 gallons of water. Begin treatment when first larvae feeding is observed in the mid-vein area at the base of the leaflets. Repeat at intervals of 2 to 3 weeks as necessary. Do not exceed 3 applications per year.

Ornamentals (Greenhouse and Out of Doors): Aphids, Cyclamen Mite, Whitefly, Rose Chaler—Use 1 pound per 100 gallons of water. On Chrysanthemums, best results will be obtained if applied before plants flower. Do not exceed a maximum of 6 pounds per acre per year. Do not apply to Birch trees or to "Bonnaton Deluxe", "Fred Shoemith", and "White Knight" chrysanthemums as injury may result. In greenhouse applications, wear a mask or respirator approved by MSA and OSHA for protection against endosulfan.

Ornamental Trees and Shrubs

Dogwood, Lilac: Dogwood Borer, Lilac Borer—Use 1 to 2 pounds per 100 gallons of water. Apply in early June and repeat in 10 to 14 days. Drench all bark areas down to the ground level. Do not exceed 6 pounds per acre per year.

Douglas Fir (Grown for Ornamentals, Nursery Stock or Christmas trees) Pacific Northwest Only: Cooley Spruce Gall Adelgid, Douglas Fir Needle Midge, Aphids—Use 1 pound per 100 gallons of water (1 tablespoon per gallon). For Gall Adelgid control apply when white cotton tufts appear. For Needle Midge control apply in late April or early May just before buds open. Do not exceed 6 pounds per acre per year.

Pines: (Austrian, Jack, Red, Scotch, White) Zimmerman Pine Moth—Use 1 to 2 pounds per 100 gallons of water. Apply in mid-April and again, if necessary, in late fall. Thoroughly wet bark and main stem, especially where branches join main stem. Do not exceed 6 pounds per acre per year.

Shade Trees (except Birch), Shrubs: Aphids—Use 1 pound per 100 gallons of water. Do not exceed 6 pounds per acre per year.

Spruce: (New England area only) Spruce Gall Aphid—Use 1 pound per 100 gallons of water. Apply in late April or early May when aphids are present but before galls are formed. Do not exceed 6 pounds per acre per year.

Taxus: Taxus Bud Mite—Use 1 pound per 100 gallons of water. Apply 3 to 5 applications beginning in mid-May. Thoroughly spray foliage, twigs and bark. Black Vine Weevil—Use 2 pounds per 100 gallons of water. Spray thoroughly and drench soil under plants. Apply when weevils first appear. Repeat in 14 days. **All Uses:** Do not exceed 6 pounds per acre per year.

NOTICE ON CONDITIONS OF SALE

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse, as such, or in combination with other materials.

water soluble bag (label)

Gowan Endosulfan 50 WSB (10163-)

DANGER - PELIGRO

POISON

Contains 50% Endosulfan

See outside bag for complete Precautions
and Directions for Use

Gowan Company
P.O. Box 5569
Yuma AZ 85366

ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAR 16 1990

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide
registered under EPA Reg. No.
10163-130