PM 17

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (TS-767)
WASHINGTON, DC 20460

NOTICE OF PESTICIDE: [X] REGISTRATION [ ] REREGISTRATION

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

EPA REGISTRATION NO.	DATE OF ISSUANCE
55638-8	MAY 06 1992
TERM OF ISSUANCE	
NAME OF PESTICIDE PRODUCT	
Cutlass WP	

NAME AND ADDRESS OF REGISTRANT *(Include ZIP code)*

Ecogen, Inc.
2005 Cabot Boulevard West
Langhorne, PA 19047-1810

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 unconditionally registered in accordance with FIFRA section 3(c)(5). Once a pesticide is unconditionally registered, however, it is not regarded as permanently acceptable. Unconditional registration does not eliminate the need for continual reassessment of a pesticide. If EPA determines, at any time, that additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under Section 3(c)(2)(B) of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA).

A stamped copy is enclosed for your records.

CC: Owen Beeder, RSB/RD

[ ] ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL	DATE
[signature]	5/1/92

EPA Form 8570-6 (Rev. 5-76) PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED

Wettable Powder Bioinsecticide

Active Ingredient:

Bacillus thuringiensis subspecies kurstaki strain EG2371	
Lepidopteran active toxin	10.0%
Inert Ingredients	90.0%
TOTAL	100.0%

1.6 oz. active ingredient per pound

CUTLASS® bioinsecticide is a biological insecticide for the control of lepidopteran pests.

KEEP OUT OF THE REACH OF CHILDREN

DANGER

Statement of Practical Treatment
If In Eyes: Flush with plenty of water. Call a physician.
If Swallowed: Call a Physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.
If Inhaled: Remove to fresh air. Get medical attention.
If on Skin: Wash with soap and water.

PELIGRO

PRECAUCION AL USUARIO:
Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
Causes irreversible eye damage. Harmful if inhaled. Avoid breathing dust or spray mist. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Applicators, mixers and loaders must wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS
Do not contaminate water when disposing of equipment washwaters.

Not for Use or Storage In or Around the Home.

RE-ENTRY STATEMENT
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. Do not enter treated areas without protective clothing until sprays have dried.

Because certain states may require more restrictive re-entry intervals for various crops treated with this product, 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. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is a reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: DANGER: Area treated with *CUTLASS®* on (date of application). Do not enter without protective clothing.

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

Storage:
Store in a cool, dry place inaccessible to children.

Pesticide Disposal:
Do not contaminate water when disposing of equipment washwaters. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:
Bag: 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!

ACCEPTED
with
In

MAY

EPA REG. No. 55638-8
EPA Est. No. 769-GA-1

Net Contents: 4 and 20 U.S. Pound Bags

ECOGEN®

Ecogen Inc. • 2005 Cabot Blvd. West
Langhorne PA 19047-1810 • (215) 757-1590

Crop	Insect Pest	Rate/Acre (pounds)
Such as: Artichokes Arugala Asparagus Beans Beets Bok Choy Broccoli Brussels sprouts Cabbage Cardoni Carrots Cauliflower Celeriac Celery Chick peas Chicory Chinese cabbage Collards Cucumber Cucurbits Dry bulb onions Eggplants Escarole Endive Garlic Green onions Greens Beet, China, Dandelion, Mustard, Turnip Horseradish Kale Kohlrabi Leeks Lentils Lettuce: Head, Leaf and Romaine Malanga Melons Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc. Napa Okra Onions Parsley Parsnips Peas Peppers Potatoes Shallots Soybean foliage Spinach Squash Sugar Beets Sweet potatoes Swiss Chard Tomatoes Turnips Watercress	Armyworms Artichoke plume moth Beet armyworm Cabbage budworm Cabbage looper Cabbage webworm Celery leaftier Corn earworm Cross-striped cabbageworm Diamondback moth European corn borer Fall armyworm Green cloverworm Imported cabbageworm Melonworm Omnivorous leafroller Pickleworm Rindworm complex Saltmarsh caterpillar Soybean looper Tobacco budworm Tomato fruitworm Tomato hornworm Tomato pinworm Velvetbean caterpillar Yellowstriped armyworm	1.0 - 2.5

II. HERBS AND SPICES		
Crop	Insect Pest	Rate/Acre (pounds)
Such as: Basil Chives Cilantis Dill Oregano Peppermint Thyme	Armyworms Diamondback moth European corn borer Green cloverworm Imported cabbageworm Loopers Saltmarsh caterpillar	1.0 - 2.5

III. PASTURE AND HAY CROPS		
Crop	Insect Pest	Rate/Acre (pounds)
Such as: Alfalfa (hay & seed) Pasture (grasses & hay) Silage	Alfalfa caterpillar Armyworms* Loopers* European skipper Webworm	1.0 - 2.5

*Product should be applied when early instar larvae first appear. If infestations persist, make a second application 7-10 days later. Combination of *CUTLASS* with a contact insecticide is recommended for control of 4th and 5th instar larvae.

DIRECTIONS FOR USE

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

Preharvest Interval: ***CUTLASS*®** bioinsecticide may be applied to the crops listed in the APPLICATION RATE TABLE at any time, up to and on the day of harvest and in storage.

Mode of Action: After consuming a lethal dose of ***CUTLASS***, larvae will cease to feed, but may remain alive on foliage for several days before disappearing. Immediately after ingestion of ***CUTLASS***, larvae begin to move slowly, become discolored, shrivel and blacken prior to death.

MIXING INSTRUCTIONS

CUTLASS bioinsecticide may be applied with conventional ground, aerial or hand held application equipment with quantities of water sufficient to provide thorough coverage of infested plants. Do not apply this product through any type of irrigation system. To obtain a suitable mixture with water, add enough water to allow maximum agitation. With agitator running, slowly add in the ***CUTLASS***. Continue agitation. Then add remainder of water and other spray materials and agitate until mixed. Maintain suspension while loading and spraying. Do not mix more ***CUTLASS*** than can be used in a 12-hour period. Rinse and flush spray equipment thoroughly following each use. Do not contaminate water when disposing of equipment washwaters.

In order to make proper decisions on application rates to be used, follow the recommendations in the APPLICATION RATE TABLE and these guidelines:

APPLICATION GUIDELINES

Pounds of Product to be Applied per Acre

	Pest Pressure (number of larvae/plant)			
Pest category	Low[1] (<0.3)	Moderate[2] (0.3-1.0)	High[3] (1.0-5.0)	Extreme[4] (>5.0)
Category 1	1.5	2.0	2.5	2.5
Category 2	1.0	1.5	2.0	2.5
Category 3	1.0	1.0	1.5	2.0

[1]Recommended spray interval of 7-10 days.
[2]Recommended spray interval of 6-8 days.
[3]Recommended spray interval of 4-6 days.
[4]Recommended spray interval of 3-5 days.

Category 1 pests include: artichoke plume moth, navel orangeworm, oriental fruit moth, tomato fruitworm (also called bollworm and corn earworm), tufted apple budmoth.

Category 2 pests include: amorbia, armyworms, cabbage looper, citrus cutworm, diamondback moth, leafrollers, melonworm, peach twig borer, pickleworm, soybean looper, tomato pinworm, tobacco budworm and tortrix moth.

Category 3 pests include: all caterpillar pests shown in the APPLICATION RATE TABLE, except those shown in Categories 1 and 2.

For crops such as Fruits, Nuts, Vines and Turf, applications are often timed to stage of development and recommendations from local Extension personnel should always be followed.

HAND HELD EQUIPMENT

When using hand held equipment, mix 3 teaspoons per gallon of water or 1 1/2 pounds per 100 gallons of spray solution. Spray to wet, but not to runoff.

TANK MIX

Combinations of ***CUTLASS*** with commonly used insecticides, fungicides, or other spray tank adjuvants are generally not deleterious to performance. It is advisable to test physical compatibility by mixing all components in small containers in proportionate quantities prior to mixing in spray tank. This product cannot be mixed with any product containing a label prohibition against such mixing. No label dosage rate should be exceeded. Application must be made in accordance with the more restrictive of label limitation and precautions.

- For improved durability of spray deposits, an approved spreader/sticker is strongly recommended for hard-to-wet crops such as cole crops.
- Feeding stimulants may improve performance. Consider using feeding stimulants in situations of heavy worm pressure, inadequate coverage, or dense crop canopy.

APPLICATION INSTRUCTIONS

CUTLASS, bioinsecticide is a selective insecticide for use against the lepidopteran larvae listed in the APPLICATION RATE TABLE. Larvae must consume deposits of ***CUTLASS*** to be affected. Always follow these directions:

- Make applications when larvae are still small (early instars) and actively feeding on foliage or other plant parts.
- Make applications before noticeable foliar damage occurs.
- Thorough spray coverage is essential for good insect control. For ground applications, directed drop nozzles should be used for certain vegetable crops.
- When insect infestations are heavy, use the higher label rates, shorten the spray interval, and/or use larger total spray volume to improve spray coverage (see APPLICATION GUIDELINES for selection of rates and intervals).
- Applications should be repeated at an interval sufficient to maintain control, depending upon plant growth, insect pressure and weather conditions after spraying. (Refer to APPLICATION GUIDELINES)
- For ground applications, use a minimum of 5 gallons of water per acre. For aerial applications, use a minimum of 2 gallons of water per acre.
- Local conditions may affect the use of ***CUTLASS***. Consult your State Agricultural Extension Specialist for specific recommendations related to local crop protection problems.
- Spray water/spray tank solutions should not exceed pH 8.0. If necessary, buffer water to near neutral pH.

IV. FRUIT, NUT AND VINE CROPS

Crop	Insect Pest	Rate/Acre (pounds)
Such as: Pome and Stone Fruit Trees: Apples Apricots Cherries Nectarines Peaches Pears Plums Prunes Quince	Cankerworm (Spring & Fall) Eastern tent caterpillar Fall webworm Fruittree leafroller Gypsy moth Navel orangeworm Omnivorous leafroller Oriental fruit moth Peach twig borer Redbanded leafroller Redhumped caterpillar Tortrix moth (Orange and Garden) Tufted apple budmoth Variegated leafroller Walnut caterpillar	1.0 - 2.5
Nut Trees: Almonds Chestnuts Filberts Pecans Walnuts	Citrus cutworm Filbert leafroller Filbert webworm Navel orangeworm Oblique banded leafroller Peach twig borer Roughskinned cutworm	1.0 - 2.5
Citrus:	Amorbia Citrus cutworm Fruittree leafroller Orangedog	1.0 - 2.5
Small Fruit and Berries: Blackberries Blueberries Cranberries Currants Raspberries Strawberries	Achema sphinx moth Armyworms Blueberry leafroller Fruittree leafroller Grape berry moth Gypsy moth Loopers Oblique banded leafroller Tobacco budworm	1.0 - 2.5
Grapes:	Grape berry moth Cherry fruitworm Grape leaffolder Grapeleaf skeletonizer Green fruitworm Omnivorous leafroller Orange tortrix Saltmarsh caterpillar	1.0 - 2.5
Tropical and Other Fruit: Avocados	Amorbia Loopers Orange tortrix Omnivorous leafroller Omnivorous looper Spanworm	1.0 - 2.5
Bananas	Banana skipper	1.0 - 2.0
Kiwi	Omnivorous leafroller	1.5 - 2.5
Persimmons Pomegranate	Citrus cutworm Fall webworm Filbert webworm Omnivorous leafroller Redhumped caterpillar Tent caterpillar	1.0 - 2.5

Sunflowers	Banded sunflower moth Beet armyworm Headmoth Loopers Sunflower moth	1.0 - 2.5
Tobacco	Tobacco budworm Tobacco hornworm Loopers	1.0 - 2.5

VI. COMMERCIAL FLOWERS AND ORNAMENTAL PLANTS

Crop	Insect Pest	Rate/Acre (pounds)
Such as: Bedding plants Flowers Greenhouse Ornamentals, Vegetables	Armyworms Azalea moth Diamondback moth Ello moth (hornworm) Io moth Loopers Oleander moth Omnivorous leafroller Omnivorous looper Tobacco budworm	1.0 - 2.5

VII. FOREST, SHADE TREE AND NURSERY STOCK

Crop	Insect Pest	Rate/Acre (pounds)
Such as: Forest, Shade trees Nursery trees	Bagworm Blackheaded budworm Browntail moth California oakworm Douglas fir tussock moth Elm spanworm Fall webworm Fruittree leafroller Greenstriped mapleworm Gypsy moth Jack pine budworm Mimosa webworm Pine butterfly Redhumped caterpillar Saddleback caterpillar Saddle prominent caterpillar Spring and fall cankerworm Spruce budworm Tent caterpillar Tortrix Western tussock moth	1.0 - 2.5

Warranty and Conditions of Sale

Ecogen warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used in accordance with the directions on this label under normal conditions of use.

ECOGEN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

If this product is defective, Buyer's exclusive remedy shall be the replacement of the product, or if replacement is impracticable, refund of the purchase price. In no case will Ecogen be liable for incidental, consequential or special damages resulting from the handling, storage or use of this product.

Pineapple	Gummosos-Batrachedra commosae Thecla-Thecla basilides	1.0 - 2.0
Tropical fruits	Hornworms Leafrollers Loopers Omnivorous leafroller	1.0 - 2.5

V. FIELD CROPS

Crop	Insect Pest	Rate/Acre (pounds)
Such as: Canola/ Rape Seed Evening Primrose	Armyworms Diamondback moth Imported cabbageworm Loopers	1.0 - 2.5
Corn (Field, Sweet, Popcorn)	Armyworms European corn borer Southwestern corn borer	1.0 - 2.5
Cotton*	Beet armyworm Bollworm Cabbage looper Cotton leaf perforator Saltmarsh caterpillar Tobacco budworm	1.0 - 2.5

* Use ***CUTLASS*** to control light to moderate populations of newly hatched worms in integrated pest management programs. Repeat treatments at 4 to 5 day intervals or as long as necessary until results are acceptable. For control of cotton bollworm and tobacco budworm ovicides such as Larvin® or synthetic pyrethroids can be combined with ***CUTLASS*** in accordance with the more restrictive of label limitation and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Hops	Armyworms Loopers Oblique banded leafroller Omnivorous leaftier Spotted cutworm	1.0 - 2.5
Jojoba	Looper (*Anacamptodes spp.*)	1.0 - 2.0
Peanuts	Fall armyworm Green cloverworm Loopers Podworms Velvetbean caterpillar	1.0 - 2.5
Rice	Armyworms Green cloverworm Loopers Saltmarsh caterpillar Velvetbean caterpillar	1.0 - 2.5
Safflower	Armyworms Loopers Saltmarsh caterpillar	1.0 - 2.5
Small Grains (Barley, Oats, Rye, Wheat, etc.)	Armyworms Loopers	1.0 - 2.5
Sorghum	European corn borer Fall armyworm Saltmarsh caterpillar Velvetbean caterpillar	1.0 - 2.5
Soybeans	Green cloverworm Soybean looper Velvetbean caterpillar	1.0 - 2.5