

NOTICE OF PESTICIDE: ☒ REGISTRATION
☐ REREISTRATION

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

NAME OF PESTICIDE PRODUCT
SPOD-X™ WETTABLE POWDER

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

CROP GENETICS INTERNATIONAL
7170 Standard Drive
Hanover, MD 21076

131 / S422091
25 / 18

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 the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) section 3(c)(7)(c) provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.
2. Add the phrase, "EPA Registration No. 58971-1" and 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.
3. Delete the statement "Open dumping is prohibited. Do not reuse empty containers" from the label as this language is for those products intended for household use.
4. Delete the ENDANGERED LEPIDOPTERAN SPECIES heading from the label and the statement "This product should not be used in close proximity to the areas listed to ensure

☐ ATTACHMENT IS APPLICABLE

CONCURRENCES

SYMBOL	SIGNATURE OF APPROVING OFFICIAL	DATE
1	H. J. S. J. C.	
SURNAME	EPH. J. S. J. C. (Rev. 3-76)	PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED.
DATE	5/4/93	

that no exposure to the endangered species occurs" as well as the attachment with the listed counties of concern from the label. You should be advised that "In the future, the Agency will require a change in the labeling regarding Endangered Lepidopteran Species whereby a statement must be placed on the label advising that you refer to the County Bulletin.

5. Submit a Cell Culture Study within one year of the date stamped on this letter of conditional registration.
6. The Technical Bulletin should be separate from the label.
7. You must have submitted the required data by May 8, 1994 for the Agency to review.
8. This conditional registration will expire automatically on May 9, 1996. If you fail to satisfy the conditions imposed in the registration, EPA may issue a Notice to Cancel ~~the amendment~~ under Section 6(e) of FIFRA.

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.

Sincerely yours,



Phil O. Hutton
Product Manager (18)
Insecticide-Rodenticide Branch
Registration Division (H7505C)

SPOD-X™
A Wettable Powder
Biological Insecticide
for Control of the
Beet Armyworm

SPOD-X is an IVP (Insecticidal Virus Product) for control of the beet armyworm (*Spodoptera exigua*). Read this label carefully. Refer to the Technical Bulletin for Additional Guidelines for Use.

Active Ingredient*

Polyhedral occlusion bodies (OBs) of the
nuclear polyhedrosis virus of *Spodoptera exigua*
(beet armyworm)

5.1%

Inert Ingredients:

94.9%

*This lot contains at least ___ billion OBs.

KEEP OUT OF THE REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS: Hazards to Humans and Domestic Animals: Avoid inhalation or contact with skin, eyes or clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling.

Statement of Practical Treatment

In case of contact with eyes flush with plenty of water for at least 15 minutes. If on skin, wash thoroughly with soap and water. If inhaled, remove victim to fresh air. Apply respiration if indicated. Get medical attention if irritation persists.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters.

Mfg. by: Crop Genetics International
7170 Standard Drive
Hanover, MD 21076

EPA REGISTRATION NO.: _____
ESTABLISHMENT NO.: 58788-MD-001

Net Weight: _____

Lot No.: _____

ACCEPTED
with COMMENTS
in EPA Letter Dated

MAY 11 1993

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
58977-1

DIRECTIONS FOR USE

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

(Refer to Technical Bulletin for Additional Guidelines for Use.)

General Information

SPOD-X is a highly selective insecticide for use against the beet armyworm (see crops listed on side panel). SPOD-X is an Insecticidal Virus Product (IVP), belonging to the classification Baculovirus, subgroup A.

SPOD-X provides a unique opportunity for biological control of *S. exigua* larvae without harmful effects on humans, domestic animals, wildlife, beneficial insects and plants.

SPOD-X is a technical grade lyophilized powder. The active ingredient in SPOD-X is the multicapsid nuclear polyhidrosis virus of the beet armyworm, *Spodoptera exigua*.

The product is rapidly inactivated by temperatures above 90° F. for prolonged storage, the product should be kept below 40° F.

Treat when larvae are young (early instars) and are actively feeding on foliage. Apply before extensive foliar damage has occurred. When insect infestations are heavy, use the higher label rates.

Thorough spray coverage is essential for good insect control. SPOD-X should be applied by conventional ground or aerial application equipment with quantities of water to provide thorough coverage of infested plants without runoff. The amount of water needed per acre will depend on weather spray equipment and local experience. Generally, use the recommended amount of SPOD-X in 20 - 100 gallons of water per acre for ground application and in at least 5 gallons of water for aerial application.

PRODUCT INFORMATION**Application****Recommended Application Rates**

CROP	RATE		COMMENTS
	Billion OBs Per Acre	Grams Per Acre	
Vegetables Tomatoes, lettuce, cabbage, beans, peppers, celery, escarole, sweet corn, peas, asparagus, beets, cauliflower, cucumber, broccoli, onion	100 to 500	10 - 50	Repeat as necessary to maintain control.
Other Crops Cotton, alfalfa, soybeans, peanuts, potatoes, corn, wheat, sweetpotatoes, tobacco, sunflower, sugarbeets	100 to 500	10 - 50	
Floriculture Chrysanthemum, gypsophila, gerbera, rose, carnation, azalea, gladiolus, cyclamen, saintpaulia, geranium, Bouvardia	100 to 500	10 - 50	

Fill the mix tank with desired quantity of water. Agitation should be used during mixing. Mixing time can be reduced by premixing SPOD-X with a small amount of water and vigorously agitating before adding to the tank. Final formulation should be mixed for 10-30 minutes.

USE NON-CHLORINATED WATER AT A pH NEAR 7.0 IN THE SPRAY-TANK MIX

RE-ENTRY

SPOD-X may be applied up to and including the day of harvest and storage.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not re-use empty containers.

Storage

Store this product in original locked container in a cool, dry place inaccessible to children and pets. Store at temperatures below 90° F.

Bioactivity may be impaired by storage above 90° Fahrenheit. Storing the product in a freezer or refrigerator will extend its shelf-life.

Pesticide and Container Disposal

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Pesticide, spray mixture or rinsate that cannot be used should be disposed of on site or at an approved waste disposal facility in accordance with Federal and local regulations.

CONTAINER DISPOSAL: Plastic container—triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burning is allowed, stay out of smoke.

Glass container—triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved State and local procedures.

TECHNICAL BULLETIN

The IVP must be ingested to be infective. At early stages of larval development, infection ultimately results in death. The OBs after ingestion, dissolve within seconds in the midgut. The released infectious virions pass through the epithelial cells lining the midgut, into the cytoplasm and nuclei of susceptibility cells. Virtually all the cells of tissues are susceptible.

Assembly of virions and formation of OBs occur only within the nucleus. Lysis of cell and disintegration of larval tissue begin shortly thereafter.

Within a day after ingestion, the usually clear hemolymph becomes increasingly cloudy. Another 1-2 days later, polyhedra-shaped bodies are detected in the blood. Depending on the dose and ambient temperatures, maximum effect on young larvae will occur at 5-7 days after initial ingestion. Shortly after death, larvae become flaccid and the integument ruptures, releasing billions of OBs.

APPLICATION SHOULD BE MADE WHEN LARVAE ARE IN THE FIRST AND SECOND INSTAR; LARVAE MUST INGEST POLYHEDRA TO BE INFECTED, WHICH IS THE CASE WHEN THEY CONSUME SPRAYED PLANT MATERIAL.

Baculoviruses have been found only in invertebrates; no member of this family is known to infect vertebrates or plants. The host range of SPOD-X is restricted to the insect family Noctuidae. No adverse effect to fish, wildlife or beneficial organisms has been observed.

COUNTIES WITH LEPIDOPTERAN SPECIES OF CONCERN (ENDANGERED)

<u>County, State</u>	<u>Species of Concern</u>
Los Angeles, CA	El Segundo blue butterfly
	Palos Verdes blue butterfly
Contra Costa, CA	Lange's metalmark butterfly
Mendocino, CA	Lotis blue butterfly
San Francisco, CA	Mission blue butterfly
San Mateo, CA	Mission blue butterfly
	San Bruno elfin butterfly
Monterey, CA	Smith's blue butterfly
Kern, CA	Kern primrose sphinx moth
Dade, FL	Schaus swallowtail butterfly
Monroe, FL	Schaus swallowtail butterfly
Lane, OR	Oregon silverspot butterfly
Pacific, WA	Oregon silverspot butterfly
Tillamook, WA	Oregon silverspot butterfly