

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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FEBRUARY 26, 1997

Mr Robert F. Bischoff  
DOWELANCO  
9330 Zionsville Road  
Indianapolis, IN 46268

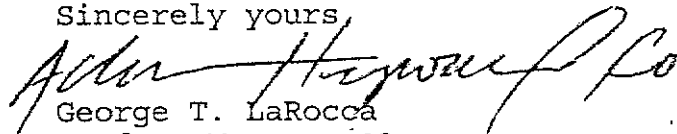
Dear Mr. Bischoff:

Subject: Minor Label Revisions  
TRACER  
EPA Registration Number 62719-267  
Amended Application Dated February 20, 1997

The revised labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is accepted. Submit five (5) copies of the final printed labeling. A copy will be stamped and return for your records.

A stamped copy of the revised labeling is enclosed for your records.

Sincerely yours,



George T. LaRocca  
Product Manager 13  
Insecticide-Rodenticide Branch  
Registration Division (7505C)

Enclosure

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

T6P/Tracer/Amend/02-19-97

page 1

2/12

(Base label):

(logo) DowElanco

**Tracer\*****A broad spectrum worm control product for cotton****Active Ingredients:****Spinosyn A:**

2-[(6-deoxy-2,3,4-tri-O-methyl- $\alpha$ -L-mannopyranosyl)oxy]-  
13-[[5-(dimethylamino)tetrahydro-6-methyl-2H-pyran-2-yl]  
oxy]-9-ethyl-2,3,3a,5a,5b,6,9,10,11,12,13,14,16a,16b-  
tetradecahydro-14-methyl-1H-as-Indaceno[3,2-d]  
oxacyclododecin-7,15-dione, [2R-[2R\*,3aS\*,5aR\*,5bS\*,  
9S\*,13S\*(2R\*,5S\*,6R\*),14R\*,16aS\*,16bR\*]](9CI)  
and

**Spinosyn D:**

2-[(6-deoxy-2,3,4-tri-O-methyl- $\alpha$ -L-mannopyranosyl)oxy]-  
13-[[5-(dimethylamino)tetrahydro-6-methyl-2H-pyran-2-yl]  
oxy]-9-ethyl-2,3,3a,5a,5b,6,9,10,11,12,13,14,16a,16b-  
tetradecahydro-4,14-dimethyl-1H-as-Indaceno[3,2-d]  
oxacyclododecin-7,15-dione, [2S-[2R\*,3aS\*,5aR\*,5bR\*,  
9R\*,13R\*(2S\*,5R\*,6S\*),14S\*,16aR\*,16bR\*]](9CI)

.....	44.2%
Inert Ingredients .....	55.8%
Total .....	100.0%

Contains 4 pounds of active ingredient per gallon.

U.S. Patent No. 5,362,634

**Keep Out of Reach of Children****Precautionary Statements****Hazards to Humans and Domestic Animals****CAUTION****PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly  
with soap and water after handling.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

FEB 26 1997

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

62719-267**BEST AVAILABLE COPY**

## Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## First Aid

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

## User Safety Recommendations

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

## Environmental Hazards

This product is highly toxic to bees exposed to direct treatment on blooming crops or other vegetation. Avoid use when bees are actively foraging. Protective information may be obtained from your Cooperative Agricultural Extension Service. This product is highly toxic to aquatic invertebrates. 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.

## Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use Including Storage and Disposal.

**Notice:** Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

## Shake Well Before Use – Avoid Freezing

EPA Reg. No. 62719-267

EPA Est. 00000-XX-00

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DowElanco • Indianapolis, IN 46268 USA

**Naturalyte\*** insect control

-Net Contents XXX

T6P/Tracer/Amend/02-19-97

page 3

4/12

(Datapack cover):

(logo) DowElanco

# Tracer\*

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ACCEPTED  
with COMMENTS  
in EPA Letter Dated

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

62719-267

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T6P/Tracer/Amend/02-19-97

page 4

5/12

**Shake Well Before Use -- Avoid Freezing**

EPA Reg. No. 62719-267

EPA Est. 00000-XX-00

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**Naturalyte\* insect control**

**Net Contents XXX**

6/12

(Page 1 through end):

## Keep Out of Reach of Children

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### Precautionary Statements

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#### Hazards to Humans and Domestic Animals

## CAUTION

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### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

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### Directions for Use

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling.  
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

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### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

### Storage And Disposal

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

**Storage:** Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

**Disposal:** Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

**Container Disposal:** Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by incineration if permitted by state and local authorities. If burned, stay out of smoke.

### General Information

Tracer\* Naturalyte\* insect control is a fermentation-derived insect control agent for insect control and management in cotton. The suspension concentrate formulation of Tracer should be mixed with water and applied with air or ground equipment equipped for conventional insecticide spraying.

### General Use Precautions

Do not apply more than 0.45 lb active ingredient (14.4 fl oz) of Tracer per acre per growing season.

**Preharvest Interval:** Do not apply Tracer within 28 days of harvest.

**Chemigation:** Do not apply through any type of irrigation equipment.

### Integrated Pest Management (IPM) Programs:

Tracer insect control is recommended as the foundation of an IPM program in cotton. Tracer should be applied when field scouting indicates that target pest densities have reached the economic threshold, i.e., the point at which the insect population must be reduced to avoid economic losses beyond the cost of control. Other than reducing the target pest species as a food source, Tracer does not significantly reduce certain parasitic insects or the natural predaceous arthropod complex including big eyed bugs, ladybird beetles, flower bugs, lacewings, minute pirate bugs, damsel bugs, assassin bugs or spiders. When preserved, the feeding activities of these beneficial arthropods aid in the extended natural control of other insects and reduce the likelihood of secondary pest outbreaks for which additional insecticide treatments may be needed. Tracer will not flare aphids or mites. If Tracer is tank mixed with any insecticide that reduces its selectivity in preserving beneficial predatory insects, then the full benefit of Tracer to your IPM program may not be realized.

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**Insecticide Resistance Management (IRM) Recommendations:**

Any insect control agent will become less effective over time if target insects develop resistance to its mode of action. Adherence to the following IRM strategy should prolong the usefulness of Tracer and conventional insecticides:

- Tracer or any insect control product from the same class or mode of action should not be used on consecutive generations of tobacco budworm or cotton bollworm. However, up to three applications to reduce a "single" insect generation below the economic threshold are permitted. [Note: Cotton bollworm (*Helicoverpa zea*) and tobacco budworm (*Heliothis virescens*) are different species. If the initial infestation is predominately (greater than 80%) cotton bollworm or tobacco budworm, then a subsequent infestation which is predominantly the "other" species should not be considered a "sequential" generation.] If uncertain of the generation cycle, do not make more than three consecutive applications of an insect control product from the same product class, rotate to a different class of insect control product, or use no treatment for the next 30 days.
- Do not use less than labeled rates of any insect control product when applied alone or in tank mixtures and target applications against small larvae and eggs.
- Always consult with your local agricultural specialist or DowElanco representative (1-800-258-3033) for guidance and information on how Tracer will fit into area resistance management programs.
- Include multiple nonchemical tactics (e.g. cultural or biological controls) within an Integrated Pest Management (IPM) program where available and appropriate.

**Mixing**

**Always shake well before use. Avoid freezing.**

**Mixing Tracer Alone**

Fill the spray tank about one-half full of water. Start agitation and add the required amount of Tracer. Continue mixing and agitation while filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray solution. Do not allow water or spray mixture to back-siphon into water source.

**Tank Mixing**

When tank mixing Tracer with other materials, a compatibility test (jar test) using relative proportions of tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

**Mixing Order for Tank Mixes:** Fill the spray tank with water to 1/4 to 1/3 of the total spray volume required. Start agitation. Add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for dry flowable products.

Add different formulation types in the following order:

1. Water dispersible granules;
2. Wettable powders;
3. Tracer and aqueous suspensions;

Maintain agitation and fill spray tank to 3/4 of total spray volume. Then add:

4. Emulsifiable concentrates and water-based solutions.

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T6P/Tracer/Amend/02-19-97

page 8

9/  
12

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose.

**Premixing:** Dry and flowable formulations may be premixed with water (slurried) and added to the spray tank through a 20-35 mesh screen. This procedure assures good initial dispersion of these formulation types.

### Application

Proper application techniques help ensure thorough spray coverage and correct dosage necessary to obtain optimum control of insect pests. The following recommendations are provided for ground and aerial application of Tracer.

**Ground Application:** Apply in a minimum spray volume of 5 gallons of water per acre. Use power-operated ground spray equipment capable of thorough coverage of the target crop. Orient the boom and nozzles to obtain uniform (crop) coverage (of the crop). Under certain conditions, drop nozzles may be required to obtain uniform coverage. Use flat fan or disc-core hollow cone nozzles suitable for insecticide spraying. Follow manufacturer's recommendations for ideal nozzle spacing and spray pressure. Minimize boom height to optimize coverage uniformity, maximize deposition (optimize on-target deposition), and reduce (spray) drift.

**Band Application:** Band application may be appropriate when cotton is small. Nozzle selection, placement, or shielding to compensate for windy conditions is critical to ensure adequate coverage.

**Aerial Application:** Apply in a total spray volume of 2 to 5 gallons per acre using nozzle configurations which will provide a median droplet size of 200-300 microns (for example: D4-D6 or 6504-6508 nozzles - recommended nozzle angle is 0 degrees straight back to 45 degrees down; or CP nozzles - recommended nozzle angle is 0 degrees straight back, adjust nozzle angle to 45 degrees down).

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10/12

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose.

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11/12

**Approved Uses**

**Cotton**

**Pests and rates for foliar application:**

Pests	Amount of Tracer † Rate per Acre		
	Pounds Active	Ounces of Product	Acres per Gallon
tobacco budworm cotton bollworm (prebloom) cotton leafperforator European corn borer	0.04 - 0.09 <u>0.045 - 0.089</u> lb a.i./acre	1.4 - 2.9 fl oz/acre	90 - 45 acres/gallon
armyworms (including beet armyworm and fall armyworm) cotton bollworm (postbloom) loopers (including soybean looper and cabbage looper) saltmarsh caterpillar thrips	0.067 - 0.09 <u>0.067 - 0.089</u> lb a.i./acre	2.2 - 2.9 fl <u>2.14 - 2.9</u> oz/acre	60 - 45 acres/gallon

† Use the minimal reapplication interval of 5 days for high rates of application.

**Factors in Rate and Spray Volume Selection - Choose a higher rate within the rate range and higher spray volume when one or more of the following is true:**

- (1) Tobacco budworm and/or cotton bollworm are more than 1/4 inch in length;
- (2) Target pest population is 2X above state threshold level;
- (3) Foliage canopy is tall/dense and worms are present in the lower part of the canopy.

**Scouting and Application Timing**

**Tobacco Budworm and/or Cotton Bollworm:** For the most effective control, fields should be scouted twice per week and application of Tracer made when the majority of the population is within the time of blackhead egg stage to 1/8-inch larval length. The following table illustrates the size of development of worms in relation to age and stage of development (instar) as a guide to timing treatments for optimum control. **Note:** A scouting schedule of only once per week is risky since hatching worms will have grown to third instar before the next scouting observation has determined the need to spray.

Age (Days)	Average Size	Instar
Hatch	1/16"	1st
3	1/8" - 1/4"	2nd
5	1/4" - 1/2"	3rd
6-8	1/2" - 7/8"	4th
8-10	7/8" - 1"	5th

**IPM (Considerations):** Where early season conservation of beneficial insects is practical to the success of the IPM program, use Tracer to control first and third generation of tobacco budworm and/or cotton bollworm. Where conservation of beneficial insects is not as critical (for example, fields with early season treatments for boll weevil or non-selective lygus bug treatments), plan to use Tracer to control either the second or third generation of tobacco budworm and/or cotton bollworm.

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12/12

**Beet Armyworm:** Economic thresholds vary with local conditions and sampling methods. The following is an example of one such method: Apply Tracer when field scouting reveals three or more occurrences of egg hatch or larval feeding per 100 feet of row.

**Loopers:** Economic thresholds vary with local conditions and sampling methods. The following is an example of one such method: Apply Tracer when field scouting reveals 4 larvae per 1 foot of row or 25% defoliation.

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### Warranty Disclaimer

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DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DowElanco MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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### Inherent Risks of Use

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It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tomadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by buyer.

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### Limitation of Remedies

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The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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