

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 2-28-95



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number  
212469

Application for Pesticide - Section I

1. Company/Product Number Sandoz Agro, Inc./55947-152	2. EPA Product Manager Phillip Hutton	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) SAN 420 I WG Sandoz Agro, Inc./ Biological Insecticide	PM# PM-90	
5. Name and Address of Applicant (Include ZIP Code) Sandoz Agro, Inc. 1300 East Touhy Avenue Des Plaines, IL 60018 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

NOTIFICATION

MAR 15 1996

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

We are hereby notifying the Agency that we are adding the brand name "Costar Biological Insecticide" to the SAN 420 I WG Biological Insecticide label (EPA Reg. No. 55947-152). Attached is a copy of the marketing label we plan on using. The use of Costar will be limited to cotton and soybeans only. We will submit five (5) copies of the final printed label to the Agency when it becomes available.

*Deleting Pests*

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal	<input type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	Other (Specify) _____	
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Frederick F. Piszkiwicz	Title Registration Specialist	Telephone No. (Include Area Code) (847) 390-3698
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Frederick F. Piszkiwicz</i>	3. Title Registration Specialist	
4. Typed Name Frederick F. Piszkiwicz	5. Date February 2, 1996	

# COSTAR™ BIOLOGICAL INSECTICIDE

For Control Of Insect Pests Of Cotton and Soybeans

## ACTIVE INGREDIENT:

Bacillus thuringiensis, subspecies kurstaki\* ..... 18.0%

INERT INGREDIENTS: ..... 82.0%  
TOTAL 100.0%

Potency units should not be used to adjust use rates beyond those specified in the Directions for Use section.

\* Equivalent to 41 billion International Units per pound

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

Made in the USA

EPA REG. NO.: 55947-152  
EPA EST. NO.: 55947-CA-2

Lot No.:  
Net Contents:

Manufactured by:  
SANDOZ AGRO, INC.  
DES PLAINES, IL 60018

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## COSTAR BIOLOGICAL INSECTICIDE

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS (AND DOMESTIC ANIMALS) CAUTION

Harmful if inhaled or absorbed through the skin. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause an allergic reaction in some individuals. Avoid contact with skin, eyes or clothing. Discontinue use if reaction occurs. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

### STATEMENT OF PRACTICAL TREATMENT

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

If in eyes: Immediately flush eyes with plenty of water. Get medical attention if irritation persists.

#### Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

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

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.

#### Engineering Controls Statements:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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## ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters.

## DIRECTIONS FOR USE

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

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### 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 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.

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

Refer to the Directions for Use booklet attached to this container for specific use directions.

Prosper with pesticides by using them properly! Read and follow label directions.

This labeling must be in the possession of the user at the time of application.

**NOTICE:** Read "Limitation of Warranty and Limitation of Liability" on the container or in this Directions for Use section before buying or using. If terms are not acceptable, return at once unopened.

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

**COSTAR™ Biological Insecticide (COSTAR)** is specific for the control of listed lepidopterous insect larvae in cotton and soybean.

**COSTAR** attacks the larval gut and must be ingested by the insect to be effective.

**COSTAR** may be applied up to and on the day of harvest.

### GENERAL USE INSTRUCTIONS

Close scouting of individual fields is necessary to detect egg laying. Spray initiation and reapplication should be based on economic thresholds. Threshold recommendations can be determined by consulting local university extension agents or crop consultants.

For most consistent control, apply at first sign of newly hatched worms (1st instar larvae). Use the higher **COSTAR** rate when larger larvae or heavy worm infestations are present. Shorter application intervals and increased water carrier volumes will provide better crop coverage and improved **COSTAR** performance when cotton foliage is dense and/or growing rapidly.

If rapid knockdown of heavy worm or non-lepidopterous populations is necessary, include an effective contact insecticide in combination with **COSTAR**. Tank mix recommendations are for use only in states where the tank mix product and application site are registered. Read and follow all label directions, specific rates, application timing and precautions for use of other insecticides tank mixed with **COSTAR**.

#### Mixing and Application Volumes:

Fill spray or mixing tank 3/4 full. Begin agitation and pour **COSTAR** into water while maintaining continuous agitation. Add other spray components and balance of water. Agitate as necessary to maintain suspension. Apply prepared spray mixtures within 48 hours.

**COSTAR** is formulated to provide desirable coverage and adherence to leaf surfaces under most circumstances. When heavy dew or rainy conditions are present, additional adjuvants, spreaders or stickers may be added to improve spray deposition. Combinations with commonly used insecticides, fungicides or other spray tank adjuvants are generally not deleterious to **COSTAR** if the mix is used promptly. Before mixing in the spray tank, it is advisable to test physical compatibility by mixing all components in a small container in proportional quantities.

**COSTAR** can be applied by ground equipment or aircraft. Use sufficient spray volumes for uniform crop coverage and satisfactory insect control. A minimum of 10 and 3 gallons water per acre are recommended for ground and aerial application, respectively. Higher water volumes have demonstrated improved control of targeted pests. Low volume applications may be used, but proper application equipment must be used to insure adequate coverage. Early morning or evening applications, when air is calm, are generally best for aerial applications.

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### INSECTS CONTROLLED

When used as directed, COSTAR will control the following insects:

COMMON NAME	SCIENTIFIC NAME
Armyworm	<i>Pseudaletia unipuncta</i> (Haworth)
Beet armyworm	<i>Spodoptera exigua</i>
Bollworm	<i>Helicoverpa zea</i> (Boddie)
Green cloverworm	<i>Plathypena scabra</i> (Fabricius)
Loopers	various
Saltmarsh caterpillar	<i>Estigmene acrea</i> (Drury)
Tobacco budworm	<i>Heliothis virescens</i> (Fabricius)
Velvetbean caterpillar	<i>Anticarsia gemmatalis</i> (Hubner)

**Rate Selection Considerations:**

Rate recommendations are typically given as a range:

**Lower rate ranges** are recommended under conditions of light worm infestations or when uniformly small worms are present.

**Medium rate ranges** may be desired when multiple worm life stages are present, continuous egg hatches are occurring or young or light armyworm infestations exist.

**Upper rate ranges** may be desired for heavy worm infestations, larger worms or for moderate to heavy infestations of armyworm, bollworm or other difficult to control worm species.

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**RECOMMENDED APPLICATION RATES**

Cotton and Soybean	LB/ACRE
<p><b>General</b>                      For light to moderate infestations, apply <b>COSTAR</b> alone or with a recommended ovicide at first sign of egg laying or newly hatched larvae (1st instar).</p> <p>When egg laying frequency indicates future moderate to heavy larvae populations, time applications to coincide with first appearance of 2nd instar larvae. During high temperature periods, worm will progress to 3rd instar very rapidly and early application timing is necessary for control.</p> <p>Reapply as necessary throughout season to maintain control.</p> <p><b>COSTAR</b> spray must be deposited at the larval feeding site. For best results, tank mix <b>COSTAR</b> with a labeled larvicide when larger larvae are present or the plant canopy is dense. When plant cover is dense and larvae are feeding in the lower 2/3 portion of the plant, aerial application may not provide sufficient penetration for adequate control.</p>	<p>0.12 - 0.75</p>
<p><u>Additional Instructions for:</u></p>	
<p><b>Tobacco budworm and bollworm</b>                      For added control, tank mixing <b>COSTAR</b> with a labeled ovicide is recommended. For added control of pyrethroid resistant tobacco budworm, include <b>COSTAR</b> as a tank mix partner with pyrethroid applications.</p>	
<p>- Early Season                      Begin applications when tobacco budworm and/or bollworm are present at threshold levels. Continue applications as needed based on field scouting, up to pyrethroid spray window.</p>	<p>0.12 - 0.75</p>
<p>- Mid to Late Season  <b>COSTAR</b> can be used to manage insect resistance and improve control of listed pests by including with chemical (pyrethroid, organophosphate or carbamate) insecticides. Repeat as necessary throughout season to maintain control. Time applications for peak egg hatch or 1st instar larvae. If egg laying is heavy and constant over a three to five day period, time application when eggs laid on the first day have developed into 2nd instar larvae.</p>	<p>0.20 - 0.75</p>
<p><b>Beet armyworm</b>                      Apply when beet armyworm larval population densities are damaging. Time application when the majority of the larvae population is in the egg hatch to 1st instar stage. If populations are dense, use a higher rate.</p>	<p>0.30 - 0.75</p>

## STORAGE AND DISPOSAL

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

**Storage:** Store in original container in a cool, dry place inaccessible to children and pets and away from heat and direct sunlight. Protect from freezing. Storage at temperatures above 90° F may impair effectiveness. When kept at room temperature (+21° to 24° C) **COSTAR** will keep its activity approximately 2 years.

**Pesticide Disposal:** Pesticide, spray mixture or rinse water that cannot be used according to label instruction must be disposed of according to federal, state or local procedures.

**Container Disposal:** Completely empty container into application equipment. 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 burned, stay out of smoke.



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**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.

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.

**COSTAR™** Biological Insecticide is a trademark of Sandoz Ltd.