

7969-154

01/24/2007

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Karen R. Blundell  
Product Registration Manager  
BASF Corporation  
Agricultural Products  
26 Davis Drive, P.O. Box 13528  
Research Triangle Park, NC, 27709

JAN 24 2007

Subject: Sovran Fungicide  
EPA Registration No. 7969-154  
Your Amendment dated June 22, 2004 Adding the new use-cucurbits  
PRIA Decision No. 345310

Dear Ms. Blundell:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following conditions are met:

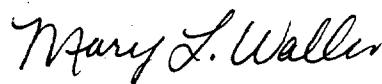
1. In the Conditions of Sale and Warranty, on the last page, revise the last sentence in the first paragraph to read as follows: "To the extent consistent with applicable law, all such risks shall be assumed by the Buyer."
2. Submit dates of analysis for all sample extracts and hydrolysates for confined rotational crop study (MRID # 45101404). If this data cannot be provided, you must provide data demonstrating that the metabolite profile in the rotated crop was stable during the storage interval phase of the study. Data must be submitted by June 2008.
3. Submit referenced analytical standards for the kresoxim-methyl metabolites (BF 490-1, BF 490-2, and BF 490-9) to the National Pesticide Standards Repository, Analytical Chemistry Laboratory located at Fort Meade, Maryland. Data must be submitted by June 2007. The address is as follows:

Attention to either Theresa Cole or Frederic Siegelman  
USEPA  
National Pesticide Standards Repository/Analytical Chemistry Branch/OPP  
701 Mapes Road  
Fort George G. Meade, Maryland 20755-5350  
(Note: The mail will be returned if the extended zip code is not used).

4. The supplemental labeling must be incorporated into the main label within 18 months or at your next label printing, whichever comes first.
5. Submit one copy of the final printed label before the product is released for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). One copy of the label stamped "Accepted" is enclosed for your records. If you have any questions, please contact Tamue L. Gibson by phone at (703) 305-9096 or via email at [Gibson.tamue@epa.gov](mailto:Gibson.tamue@epa.gov).

Sincerely,



Mary L. Waller  
Product Manager (21)  
Fungicide Branch  
Registration Division (7505P)

Enclosure



The Chemical Company

GROUP	11	FUNGICIDE
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# Sovran® fungicide

## Supplemental Labeling

**For use in cucurbit vegetables.**

**EPA Reg. No. 7969-154**

**Active ingredient:**

Kresoxim-methyl: (methyl (E)-2-methoxyimino-2-[2-(o-tolyloxymethyl) phenyl] acetate) ..... 50.0%

**Other Ingredients:** ..... 50.0%

**Total:** ..... 100.0%

All applicable directions, restrictions, precautions and conditions of sales and warranty on the EPA-registered label are to be followed.

**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 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. Refer to the **Sovran® fungicide** main label for

**Precautionary Statements, First Aid** and **Personal Protective Equipment** requirements. This supplemental label must be in the user's possession during application.

**General Information**

**Sovran** provides optimum disease control when applied in a regularly scheduled protective fungicide program and used in a spray program that rotates fungicides with different modes of action. Refer to the **Sovran** main label for general resistance management information and to the crop-specific use recommendations and restrictions found in this label.

**Application Information**

Apply **Sovran** according to the rate, timing, resistance management and adjuvant use recommendations in **Table A** in this label.

**Sovran** may be applied by ground sprayer or aerial equipment. Refer to the **Sovran** main label for specific instructions on these methods.

**Restrictions and Limitations**

**Sovran** is not for use in greenhouse or transplant production systems for food crops including cucurbits.

Follow the restrictions and limitations outlined in **Table A** in this label for:

- Minimum pre-harvest interval (PHI)
- Maximum rate per acre
- Maximum number of applications
- Maximum rate per season
- Plant back interval

**Mode of Action:**

Kresoxim-methyl, the active ingredient of **Sovran**, belongs to the group of respiration inhibitors classified by the U.S. EPA and Canada PMRA as Quinone Outside Inhibitors (QoI), or Target Site of Action **Group 11** fungicides.

**Resistance Management**

**Sovran** contains Kresoxim-methyl, a **Group 11** fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of QoI fungicides (Target site **Group 11**), for example, sterol inhibitors, benzimidazoles, or phenylamides. Fungal isolates of the gummy stem blight and powdery mildew pathogens listed in this label resistant to **Group 11** fungicides, such as pyraclostrobin, azoxystrobin, trifloxystrobin, and kresoxim-methyl, may dominate the fungal population if **Group 11** fungicides were used predominantly and repeatedly in the same field in successive years as the primary method of control for the targeted pathogen species.

This may result in reduction of disease control by **Sovran** or other **Group 11** fungicides.

**Note:** Isolates of gummy stem blight and powdery mildew with reduced sensitivity to **Group 11** fungicides have been detected in various locations. Disease control from **Sovran** or other **Group 11** fungicides

may be less than satisfactory where these isolates are predominant.

**DO NOT** use **Sovran® fungicide** for control of these diseases where resistance to **Group 11** fungicides exists.

**DO NOT** make more than one (1) application of **Sovran** before alternating to a labeled non-strobilurin (non-QoI) fungicide with a different mode of action for at least one application.

To maintain the performance of **Sovran** in the field, **DO NOT** exceed the total number of sequential applications of **Sovran** and the total number of applications of **Sovran** per season stated in this label. Adhere to the label instructions regarding the consecutive applications of **Sovran** or other target site of action **Group 11** fungicides that have a similar site of action on the same pathogens.

The following recommendations may be considered to delay the development of fungicide resistance:

**1. Tank mixtures:** Use tank mixtures with fungicides from different target site of action groups that are registered/permited for the same use and that are effective against the pathogens of concern. BASF recommends that no less than the minimum labeled rates of each fungicide in the tank mix be used.

**2. IPM: Sovran** should be integrated into an overall disease and pest management program. Cultural practices known to reduce disease development should be followed. Consult your local extension specialist, certified crop advisor and/or BASF representative for additional IPM strategies established for your area.

**Sovran** may be used in Agricultural Extension advisory (disease forecasting) programs, which recommend application timing based on environmental factors favorable for disease development.

**3. Monitoring:** Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development. If a **Group 11** target site fungicide, such as **Sovran**, appears to be less effective against a pathogen that it previously controlled or suppressed, contact a BASF representative, local extension specialist, or certified crop advisor for further investigation.

**Table A - Sovran Crop-Specific Use Directions and Restrictions and Limitations**

Crop	Target Diseases	Product Use Rate per Application <sup>1</sup>	Maximum Number of Applications per Season	Maximum Product Rate per Acre per Season (oz)	Minimum Time from Application to Harvest (PHI)	Plant Back Interval
<b>Cucurbit Vegetables</b> including all types of hybrids of:  Cantaloupe Chayote Chinese waxgourd Citron melon Cucumber Gherkin Gourds <i>Momordica</i> spp. Muskmelon Pumpkin Summer Squash Winter Squash Watermelon Zucchini	Powdery mildew (Sphaerotheca fuliginea, Erysiphe cichoracearum)	3.2 to 4.8 oz per acre	4	19.2 oz per acre	0 days	14 days
	Gummy stem blight (Didymella bryoniae)	4.8 oz per acre				

**Cucurbit Vegetables Group Information**

**Application Directions:** Begin applications of **Sovran® fungicide** prior to onset of disease development and continue on a 7- to 10-day interval. Use the higher rate and the shorter interval when disease pressure is high.

The use of additives or adjuvants may improve the performance of **Sovran**. However, BASF evaluations also indicate that under some conditions (particularly high temperatures and/or high additive rates), application of **Sovran** in combination with certain rates of silicone-based or oil-containing (petroleum or crop) additives or adjuvants can cause injury to some cucurbit crops.

BASF has not tested all varieties and cultivars with all possible tank mix combinations and rates of additives or adjuvants. Local environmental conditions also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Sovran** with other products.

To minimize the likelihood of crop injury, BASF recommends testing **Sovran** in combination with other products for crop safety on a small portion of the crop. However, environmental variability precludes direct and consistent projection of small area test results to future use.

Consult a BASF representative for more information concerning additives or adjuvants.

**Conditions of Sale and Warranty**

The **Directions For Use** of this product reflects the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

*Sovran is a registered trademark of BASF.*

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007969-00154.20050125c.NVA 2005-04-079-0006  
Supersedes: NVA 99-4-79-0065

BASF Corporation  
Agricultural Products  
26 Davis Drive  
Research Triangle Park, NC 27709

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated**

**JAN 24 2007**

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

*7969-154*



The Chemical Company