BASF
The Chemical Company

Group 11 Fungicide

Sovran®
fungicide

Department of Agriculture
STATE OF HAWAII
LICENSED
PERIOD 2014-2016 LIC. NO. 9131.36

Department of Agriculture
STATE OF HAWAII
LICENSED
PERIOD 2011-2013 LIC. NO.

Department of Agriculture
STATE OF HAWAII
LICENSED
PERIOD 2008-2010 LIC. NO.

For use on apples, cucurbit vegetables, grapes, pears and other pome fruit, and pecans.

Active Ingredient:
kresoxim-methyl:
(methyl (E)-2-methoxyimino-2-[2-(o-tolyloxymethyl)phenyl] acetate) 50.0%
Other Ingredients: 50.0%
Total: 100.0%

EPA Reg No. 7969-154 **EPA Est. No. 67545-AZ-001**

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN

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.)

See the attached booklet for complete **First Aid**, **Precautionary Statements**, **Directions For Use**, and **Conditions of Sale and Warranty.**
In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents: 1.25 pounds

Product of Spain.

Produced for: BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

2081731
NVA 2009-05-079-0102

Sovran

FIRST AID	
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. **DO NOT** get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to Category **A** on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

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

Engineering Controls Statement

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.

Environmental Hazards

This pesticide is toxic to freshwater and estuarine fish and invertebrates. **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment wash waters.

Surface Water Advisory. This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water (via both dissolution in runoff water and adsorption to eroding soil) for several days post application. These conditions include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and highly erodible soils cultivated using poor agricultural practices such as conventional tillage and down-the-slope plowing, and areas where an intense or sustained rainfall is forecast to occur within 48 hours.

Groundwater Advisory. This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in alkaline areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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.

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 enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Storage and Disposal

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage. Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.

Pesticide Disposal. Wastes resulting from using this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal.
Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

(continued)

Storage and Disposal *(continued)*

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Spill

In case of large-scale spillage regarding this product, call:

CHEMTREC	1-800-424-9300
BASF Corporation	1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled:
Wear the personal protective equipment specified on the label. Recover the material for reuse according to label whenever possible. Sweep and/or shovel up the spilled material into an appropriate closed container. Avoid the creation of dusty conditions. Remove and wash clothing and personal protective equipment prior to reuse. Keep the spill out of all sewers and open bodies of water.

General Information

This package contains **Sovran® fungicide**, a 50% water-dispersible granule (WG). The active ingredient in **Sovran,** kresoxim-methyl, belongs to the strobilurin class of fungicides. Strobilurins are synthetic analogs of a natural antifungal substance and belong to the group of respiration inhibitors classified by the EPA as Quinone Outside Inhibitors (QoI) or target site of action **Group 11** fungicides. **Sovran** is effective against pathogens resistant to other fungicides of different modes of action.

Sovran inhibits spore germination, sporulation, and mycelial growth on the leaf surface. Optimum disease control is achieved when **Sovran** is applied in a regularly scheduled protective spray program and is used in a rotation program with other fungicides of different modes of action.

On apples, **Sovran® fungicide**, controls scab, powdery mildew, frogeye leaf spot/black rot, flyspeck, sooty blotch, white rot, Brooks fruit spot and Alternaria blotch. When **Sovran** is applied to control scab and powdery mildew, suppression of cedar apple rust and quince rust also occurs. On pears and other pome fruits, **Sovran** controls scab and powdery mildew. When **Sovran** is applied to control scab and powdery mildew, suppression of quince rust also occurs. On grapes, **Sovran** controls powdery mildew, black rot, Phomopsis cane and leaf spot, and downy mildew. **Sovran**, applied to control these grape diseases, also suppresses Botrytis bunch rot. On pecans, **Sovran** controls leaf and nut scab. On cucurbit vegetables, **Sovran** controls powdery mildew and gummy stem blight. Because of its high specific activity, low vapor pressure, and good rainfastness, **Sovran** has good residual activity against target fungi.

Sensitive Crop Precaution

Sovran may cause injury to certain sensitive cherry varieties such as Van, Sweetheart, Chelan, Somerset, Valera, Vandalay, Cavalier, Coral, Coral Champagne, Angela, Vista, Emperor Francis, Lapins, Royalton, Schmidt, Summit, Viva and Asian pears of variety Olympic (Korean Giant). Use special care when applying **Sovran** to prevent contact with these sensitive varieties and other nontarget plants. Avoid off-target movement. Consult a BASF representative or local agricultural authorities for more information concerning additional cherry varieties that may be sensitive to **Sovran**.

Thoroughly rinse spray equipment, including the inside of the tank, hoses and nozzles after and before using the same equipment in crops that are sensitive to **Sovran**.

Resistance Management

Kresoxim-methyl, the active ingredient of **Sovran,** belongs to the group of respiration inhibitors classified by the EPA as Quinone Outside Inhibitors (QoI) or target site of action **Group 11** fungicides. **Sovran** is effective against pathogens resistant to fungicides with modes of action different than those of QoI fungicides, such as sterol inhibitors, dicarboximides, benzimidazoles, anilinopyrimidines, or phenylamides. The repeated and exclusive use of **Sovran** and other strobilurin (QoI) fungicides, such as azoxystrobin and trifloxystrobin, may allow less sensitive strains of target fungi to build over time and may reduce disease control. Target fungi exhibiting resistance to other strobilurin (QoI) fungicides may also exhibit resistance to **Sovran**. To maintain the performance of **Sovran** and other strobilurin (QoI) fungicides in the field, the use of this product should conform to resistance management strategies stated for each crop in **Crop-specific Information.**

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/permitted 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. Follow more restrictive directions for use of any tank mix partners. **DO NOT** tank mix with any product which contains a prohibition on tank mixing.
2. **Integrated Pest Management (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.

Cleaning Spray Equipment

Spraying equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used prior to **Sovran**.

Application Instructions

Apply specified rates of **Sovran® fungicide**, as instructed in **Crop-specific Information**. Ground application is recommended for thorough coverage. Aerial application can be made for those crops or in conditions where applications are not possible using ground equipment.

Ground Application. Apply **Sovran** in sufficient water to ensure thorough coverage of foliage, bloom, or fruit. Thorough coverage is required for optimum disease control. **DO NOT** apply when conditions favor drift from target area or when windspeed is greater than 10 mph. Equipment should be checked frequently for calibration. Under low-level disease conditions, the minimum application rates can be used. Maximum application rates and shortened spray schedules are recommended for severe or threatening disease conditions.

Aerial Application. Aerial application can be made and thorough coverage is required to obtain optimum disease control. Avoid applications under conditions when uniform coverage cannot be obtained or when spray drift may occur. Use no less than 5 gallons of spray solution per acre. Not registered for aerial application in California.

Additives

Usually additives or adjuvants are not necessary for effective use of **Sovran**. If the pH of the tank mix is 9 or greater, BASF recommends a buffer or acidifier be added to optimize performance of **Sovran**.

Refer to **General Tank Mixing Information.** Consult a BASF representative or local authorities for more information about additives.

General Tank Mixing Information

Tank Mix Partners/Components

Sovran can be tank mixed with most recommended fungicides, insecticides, plant growth regulators, adjuvants or additives. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can 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. Therefore, before using any tank mix (fungicides, insecticides, plant growth regulators, adjuvants, or additives), test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

Mixing Order

1. **Water –** Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water.
2. **Agitation –** Maintain constant agitation throughout mixing and application.
3. **Inductor –** If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags –** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-dispersible products** (such as **Sovran**, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).
6. **Water-soluble products.**
7. **Emulsifiable concentrates** (such as oil concentrate when applicable).
8. **Water-soluble additives** [such as ammonium sulfate (AMS) or urea ammonium nitrate (UAN) when applicable].
9. **Remaining quantity of water.**

Maintain constant agitation during application.

Restrictions and Limitations

- **Maximum seasonal use rate:** See **Table 1. Crop-specific Restrictions and Limitations** for the maximum seasonal rate of **Sovran® fungicide**.
- **Preharvest Interval (PHI):** See **Table 1. Crop-specific Restrictions and Limitations** for each crop's preharvest interval.
- **Restricted-Entry Interval (REI): 12 hours**.
- **DO NOT** reduce the **Sovran** rates specified on the label.
- **DO NOT** apply through any type of irrigation system.

Table 1. Crop-specific Restrictions and Limitations

Crop	Minimum Time from Application to Harvest (PHI) (days)	Maximum Rate per Acre per Application (ozs. product)	Maximum Number of Applications per Season at Maximum Rate	Maximum Rate per Acre per Season (ozs. product)
Pome fruit: Apple Pear Quince Crabapple Loquat Mayhaw Oriental Pear	30	6.4	4	25.6
Cucurbit Vegetables Group[1] Cantaloupe Cucumber Melon Squash Pumpkin Watermelon	0	4.8	4	19.2
Grape	14	6.4	4	25.6
Pecan	45	4.8	3	14.4

[1]For a complete list of crops, see **Crop-specific Information.**

Apple

Table 2. Sovran® fungicide Application Rates and Timing on Apple

Disease	Directions For Use	Sovran Application Rates per Acre[1]
Apple scab (*Venturia inaequalis*)	Begin at 1/2-inch green or when conditions are conducive for disease development; repeat at 7- to 10-day intervals depending on the **Sovran** rate, rate of shoot growth, level of disease pressure and the curative properties of the fungicide applied after **Sovran.** A 7-day interval is recommended if **Sovran** is applied at 3.2 oz/A, shoots are growing rapidly, disease pressure is high, or a fungicide with protectant activity only is applied following **Sovran**.	3.2 to 6.4 ounces
Apple powdery mildew (*Podosphaera leucotricha*) Frogeye leaf spot (*Botryosphaeria obtusa*)	Begin at 1/2-inch green and repeat at 7- to 10-day intervals depending on the rate of shoot growth and level of disease pressure. A 7-day interval is recommended if shoots are growing rapidly or disease pressure is high.	4.0 to 6.4 ounces
Alternaria blotch (*Alternaria mali*) Brooks fruit spot (*Mycosphaerella pomi*) Flyspeck (*Zygophiala jamaicensis*) Sooty blotch (disease complex) White rot (Bot rot) (*Botryosphaeria dothidea*) Black rot (*Botryosphaeria obtusa*)	Apply **Sovran** at first or second cover and repeat at 7- to 14-day intervals.	4.0 to 6.4 ounces
Cedar-apple rust (*Gymnosporangium juniperivirginianae*) Quince rust (suppression) (*Gymnosporangium clavipes*)	Applications of **Sovran** for the control of scab or powdery mildew will also suppress cedar-apple and quince rust.	3.2 to 6.4 ounces

[1]The rates per acre are based on a tree size requiring a standard dilute spray of 300 gallons per acre.

See Apple Information following. (continued)

Application Information

Make applications of **Sovran® fungicide** in sufficient spray volume to ensure thorough coverage. The rate of **Sovran** is dependent on numerous factors, including varietal susceptibility, weather conditions and disease pressure. Refer to **Table 2** for specific instructions for disease control, application timings, and rates. Optimum disease control is achieved when **Sovran** is applied in a regularly scheduled protective spray program with other fungicides of different modes of action. When **Sovran** is applied curatively against scab, applications of **Sovran** must be made as soon as possible following the beginning of a scab infection period, but within 96 hrs, and at the highest label rate. Subsequent applications should be made within 7- to 10-days as described in **Table 2**. A reliable disease forecasting system must be used to accurately predict and record scab infection periods.

Sovran applied for the control of scab and powdery mildew will also suppress cedar-apple rust and quince rust. Under conditions of high disease pressure, rotation of **Sovran** with other fungicides effective against rust is recommended. During periods of heavy infection pressure, use the higher rates of **Sovran** shown in **Table 2**.

Crop-specific Restrictions and Limitations

To limit the potential for development of resistance:

- **DO NOT** make more than 4 applications of **Sovran** or other strobilurin (QoI) fungicides per season.
- **DO NOT** make more than 2 sequential applications of **Sovran**.
- Apply **Sovran** in alternation with labeled non-strobilurin (non-QoI) fungicides with a different mode of action.

Cucurbit Vegetables Group

Table 3. Sovran Application Rates and Timing on Cucurbit Vegetables

Crop	Disease	Directions For Use	Sovran Application Rates per Acre
Cucurbit Vegetables Group Chayote	Powdery mildew *(Sphaerotheca fuliginea, Erysiphe cichoracearum)*	Begin applications of **Sovran** 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.	3.2 to 4.8 ounces
Chinese waxgourd Citron melon Cucumber Gherkin Pumpkin Watermelon	Gummy stem blight *(Didymella bryoniae)*	Begin applications of **Sovran** prior to onset of disease development and continue on a 7- to 10-day interval.	4.8 ounces

(continued)

Table 3. Sovran® fungicide Application Rates and Timing on Cucurbit Vegetables *(continued)*			
Crop	**Disease**	**Directions For Use**	**Sovran Application Rates per Acre**
Edible gourd Chinese Okra Cucuzza Hechima Hyotan **Momordica spp.** Balsam apple Balsam pear Bitter melon Chinese cucumber **Muskmelon** Cantaloupe Casaba Crenshaw melon Golden pershaw melon Honey balls Honeydew melon Mango Melon Persian melon Pineapple melon Santa Claus melon Snake melon **Summer squash** Crookneck squash Scallop squash Straightneck squash Vegetable marrow Zucchini	Powdery mildew *(Sphaerotheca fuliginea, Erysiphe cichoracearum)*	Begin applications of **Sovran** 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.	3.2 to 4.8 ounces
	Gummy stem blight *(Didymella bryoniae)*	Begin applications of **Sovran** prior to onset of disease development and continue on a 7- to 10-day interval.	4.8 ounces

(continued)

Table 3. Sovran® fungicide Application Rates and Timing on Cucurbit Vegetables *(continued)*			
Crop	**Disease**	**Directions For Use**	**Sovran Application Rates per Acre**
Winter squash Acorn squash Butternut squash Calabaza Hubbard squash Spaghetti squash	Powdery mildew *(Sphaerotheca fuliginea, Erysiphe cichoracearum)*	Begin applications of **Sovran** 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.	3.2 to 4.8 ounces
	Gummy stem blight *(Didymella bryoniae)*	Begin applications of **Sovran** prior to onset of disease development and continue on a 7- to 10-day interval.	4.8 ounces

Application 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.

Sovran may be applied by ground sprayer or aerial equipment at the rates listed in **Table 3**.

Begin applications of **Sovran** 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.

Crop-specific Restrictions and Limitations

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

Crop Rotation Restriction

Cucurbit vegetables listed on the **Sovran** label may be planted immediately following the last application.

All other crops can be planted 14 days after the last application.

Resistance Management

To limit the potential for development of resistance:

- On cucurbit vegetables, do not make more than 4 applications of **Sovran** or other strobilurin (QoI) fungicides per season.
- Do not make more than 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.

Fungal isolates of the gummy stem blight and powdery mildew pathogens listed in this label that are 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® fungicide**, 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** for control of these diseases where resistance to **Group 11** fungicides exists.

Grape

Table 4. Sovran Application Rates and Timing on Grape

Disease	Directions For Use	Sovran Application Rates per Acre[1]
Grape powdery mildew (*Uncinula necator*)	Begin at bud break and continue applications on a 14-day interval; under low disease pressure, the interval may be extended up to 21 days.	3.2 to 4.8 ounces
Grape black rot (*Guignardia bidwellii*) Phomopsis cane and leaf spot (*Phomopsis viticola*)	Begin at bud break and continue on a 14-day interval.	3.2 to 4.8 ounces
Downy mildew (*Plasmopara viticola*)	Begin at bud break and continue on a 7- to 10-day interval.	4.0 to 6.4 ounces
Botrytis bunch rot (suppression) (*Botrytis cinerea*)	Applications of **Sovran**, made between early bloom and veraison for the control of powdery mildew, downy mildew, black rot or Phomopsis, will also suppress Botrytis bunch rot.	3.2 to 6.4 ounces

See Grape Information following. (continued)

Application Information

Use **Sovran® fungicide**, as a protective spray as described in **Table 4**.

Make applications of **Sovran** in sufficient spray volume to ensure thorough coverage. **DO NOT** use less than 10 gallons of water per acre.

The use of organosilicone-based adjuvants in a tank mix with **Sovran** may result in marginal burn of the youngest leaves of certain sensitive varieties.

For grape varieties more susceptible to powdery mildew or under conditions that favor rapid powdery mildew development, use the higher rate of **Sovran** per acre.

When powdery mildew pressure is low, the spray interval can be extended up to 21 days. BASF recommends that a reliable risk assessment model (such as the Gubler-Thomas model) be used to assist in determining the spray interval. Consult your local agriculture extension agent or BASF representative for more information.

For downy mildew control, begin sprays at bud break and continue on a 7- to 10-day schedule. Under conditions that favor severe downy mildew development, use 6.4 ounces of **Sovran** per acre.

Sovran applied for control of the previously mentioned grape diseases between early bloom and veraison will also provide suppression of Botrytis bunch rot. Under conditions of high disease pressure, effective Botryticides are recommended for control of Botrytis bunch rot.

Crop-specific Restrictions and Limitations

To limit the potential for development of resistance:

- On wine and table grapes, **DO NOT** make more than 4 applications of **Sovran** or other strobilurin (QoI) fungicides per season. On grapes for other uses, **DO NOT** make more than 3 applications per season.
- **DO NOT** make more than 2 sequential applications of **Sovran**.
- Apply **Sovran** in alternation with labeled non-strobilurin (non-QoI) fungicides with different modes of action.

Table 5. Sovran® fungicide Application Rates and Timing on Pear, Quince, Crabapple, Loquat, Mayhaw, and Oriental Pear

Disease	Directions For Use	Sovran Application Rates per Acre[1]
Scab (*Venturia inaequalis, Venturia pyrina*)	Begin at 1/2-inch green or when conditions are conducive for disease development; repeat at 7- to 10-day intervals depending on the **Sovran** rate, rate of shoot growth, level of disease pressure and the curative properties of the fungicide applied after **Sovran.** A 7-day interval is recommended if **Sovran** is applied at 3.2 oz/A, shoots are growing rapidly, disease pressure is high, or a fungicide with protectant activity only is applied following **Sovran**.	3.2 to 6.4 ounces
Powdery mildew (*Podosphaera leucotricha*)	Begin at 1/2-inch green and repeat at 7- to 10-day intervals depending on the rate of shoot growth and level of disease pressure. A 7-day interval is recommended if shoots are growing rapidly or disease pressure is high.	4.0 to 6.4 ounces
Quince rust (suppression) (*Gymnosporangium clavipes*)	Applications of **Sovran** for the control of scab or powdery mildew will also suppress quince rust.	3.2 to 6.4 ounces

[1]The rates per acre are based on a tree size requiring a standard dilute spray of 300 gallons per acre.

Application Information

Make applications of **Sovran** in sufficient spray volume to ensure thorough coverage. Apply **Sovran** at the rates and intervals described in **Table 5**. For concentrate sprays, use the equivalent rate per acre determined for dilute spray. **Sovran** applied for the control of scab and powdery mildew will also suppress quince rust. Under conditions of high disease pressure, rotation of **Sovran** with other fungicides effective against rust is recommended. Use the higher rate of **Sovran** when heavy infection pressure exists or is anticipated.

Crop-specific Restrictions and Limitations

To limit the potential for development or resistance:

- **DO NOT** make more than 4 applications of **Sovran** or other strobilurin (QoI) fungicides per season.
- **DO NOT** make more than 2 sequential applications of **Sovran**.
- Apply **Sovran** in alternation with labeled non-strobilurin (non-QoI) fungicides with a different mode of action.

Pecan

Table 6. Sovran® fungicide Application Rates and Timing on Pecan		
Disease	**Directions For Use**	**Sovran Application Rates per Acre**
Scab (*Cladosporium caryigenum*)	**Prepollination:** Begin at bud break and continue on a 14-day interval through the end of pollination.	2.4 to 3.2 ounces
Scab (*Cladosporium caryigenum*)	**Postpollination:** Apply on a 21-day interval until shell hardening.	3.2 to 4.8 ounces

Application Information

The best scab control will be achieved by using **Sovran** on a protective spray schedule. Depending on spray timing and infection pressure apply 2.4 to 4.8 ounces of **Sovran** as described in **Table 6**. To ensure good coverage, BASF recommends using a minimum of 50 gallons of water per acre.

Crop-specific Restrictions and Limitations

To limit the potential for development of resistance:

- **DO NOT** make more than 3 applications of **Sovran** or other strobilurin (QoI) fungicides per season.
- **DO NOT** make more than 3 sequential applications of **Sovran**.
- Apply **Sovran** in alternation with labeled non-strobilurin (non-QoI) fungicides with different modes of action.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect 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 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 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. To the extent consistent with applicable law, 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, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT 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.

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Sovran *is a registered trademark of BASF Corporation.*

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Supplemental: NVA 2005-04-079-0006
Supersedes: NVA 2005-04-079-0222

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

BASF

The Chemical Company

BASF
The Chemical Company

Group 11 Fungicide

Sovran®

fungicide

For use on apples, cucurbit vegetables, grapes, pears and other pome fruit, and pecans.

Active Ingredient:
kresoxim-methyl:
(methyl (E)-2-methoxyimino-2-[2-(o-tolyloxymethyl)phenyl] acetate)..... 50.0%
Other Ingredients:..... 50.0%
Total:.....100.0%

EPA Reg No. 7969-154 EPA Est. No. 67545-AZ-001

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN

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.)

Precautionary Statements: Hazards to Humans and Domestic Animals: CAUTION. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. **DO NOT** get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist. **FIRST AID: If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. **If in eyes:** Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. Call a poison control center or doctor for treatment advice. **If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. **DO NOT** give anything by mouth to an unconscious person. **If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth, if possible. Call a poison control center or doctor for further treatment advice. **HOT LINE NUMBER:** Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357). **Environmental Hazards:** This pesticide is toxic to freshwater and estuarine fish and invertebrates. **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment wash waters. See attached booklet for complete Environmental Hazards and Ground and Surface Water Advisory.

Storage and Disposal: **DO NOT** contaminate water, food, or feed by storage or disposal. **Pesticide Storage.** Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label. **Pesticide Disposal.** Wastes resulting from using this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. **Container Disposal. Nonrefillable Container. DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities. See attached booklet for complete container disposal directions including triple rinsing and pressure rinsing instructions. **In Case of Spill:** In case of large-scale spillage regarding this product, call: CHEMTREC 1-800-424-9300, BASF Corporation 1-800-832-HELP (4357).

See the attached booklet for complete **First Aid**, **Precautionary Statements**, **Directions For Use**, and **Conditions of Sale and Warranty. In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).**

Net Contents: 1.25 pounds

Product of Spain.
Produced for: BASF Corporation, 26 Davis Drive, Research Triangle Park, NC 27709

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