

10163-273

12/29/2009

1/13



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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

December 29, 2009

Julia Butcher
Senior Registration Specialist
Gowan Company
P.O. Box 5560
Yuma, AZ 85366-5569

Subject: Rubigan E.C.
EPA Registration Number 10163-273
Your PRIA Amendment dated May 18, 2006 - New use on hops
PRIA Decision Number 367679

Dear Ms. Butcher:

The amended label referred to above, submitted in connection with registration under section 3(c)(7)(b) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is acceptable provided you make the following changes:

1. On page 2, in the Environmental Hazards section, add the following text after the first paragraph:

“Fenarimol has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This product may contaminate surface water due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.

This product is classified as having high potential for runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from runoff of rain water. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.”

2. On page 2, in the Agricultural Use Requirements box, revise the restricted entry interval (REI) to “24 hours”.
3. On page 2, under General Information, second paragraph, revise the second sentence to read as follows: “**Note:** Use directions for Rubigan E.C. for all crops are made. . . Follow use directions in the appropriate section for your area.”

4. On page 2, revise the heading "General Use Precautions" to General Use Restrictions".
5. On page 2, under "Mixing and Applications Directions" section, revise the third sentence to read as follows: "Then add the labeled rate of Rubigan E.C. followed by other emulsifiable concentrate and solution products."
6. On page 3, under tank mixing, revise the last sentence to read as follows: "No label dosage rate may be exceeded and the most restrictive label limitations and precautions must be adhered to."
7. On page 3, under the Spray Volume and Concentration section, revise the first sentence to read as follows: "Mix the specified dosage of Rubigan E.C. . ."
8. On page 4 in the grape use table, revise the first sentence in the Application timing section as follows: "Rubigan E.C. may be applied alone or in tank mix combinations with labeled rates of a protectant fungicide. . ."
9. On page 5 in the pecan use table, revise the second and third sentence in the Application timing section as follows: "Continue applications up to and including the point where nuts. . . Thereafter, use Rubigan E.C. in tank-mix combination with a protectant fungicide at its labeled use rate."
10. On page 6 in the pear use table, revise the first sentence in the application timing section as follows: "Rubigan E.C. may be applied alone or in tank mix combination with labeled rates of a protectant fungicide."
11. On page 7 in the cherry use table, revise the first sentence in the application timing section as follows: "Rubigan E.C. may be applied alone or in tank mix combination with labeled rates of a protectant fungicide."
12. On page 7 in the grape use table, revise the first sentence in the application timing section as follows: "Rubigan E.C. may be applied alone or in tank mix combination with labeled rates of a protectant fungicide."
13. On page 7 in the grape use table, revise the first sentence in the Precaution section as follows: "Use of Rubigan E.C. at higher than labeled rates during. . ."
14. On page 8 in the pecan use table, revise the second sentence in the application timing section as follows: "Continue application up to and including the point where nuts are up to. . ."
15. On page 9, under the rose section, revise the first sentence as follows: "Apply Rubigan E.C. at the labeled application rate and spray interval."
16. On page 9, under the rose section, tank mixture section, revise the second sentence as follows: "Use the labeled use rate of the selected tank mix product for black spot. . ."

One copy of the label stamped "Accepted with comments" is enclosed for your records. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment. If you have any questions, please contact Tamue L. Gibson by phone at (703) 305-9096 or via email at gibson.tamue@epa.gov.

Sincerely,



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

Enclosure

4/13

Rubigan® E.C.

A locally systemic fungicide for the control of scab, powdery mildew and rusts on apples; scab and powdery mildew on pears and pecans; leaf spot and powdery mildew on cherries; and powdery mildew on grapes and hops; for the prevention or therapeutic control of powdery mildew on commercially grown, field or greenhouse roses and field or container grown ornamentals.

ACTIVE INGREDIENT	% By Wt.
Fenarimol: a-(2-chlorophenyl)-a-(4-chlorophenyl)-5-pyrimidinemethanol	12.0%
OTHER INGREDIENTS	88.0%
	TOTAL 100.0%

Contains 1 pound active ingredient per gallon.
Contains petroleum distillate.

KEEP OUT OF REACH OF CHILDREN WARNING – AVISO

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.)

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to by a poison control center or a doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious or convulsing person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for 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 1-888-478-0798 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
This product may pose an aspiration pneumonia hazard. Contains petroleum distillate.	

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING - AVISO

Causes substantial but temporary eye injury. Causes skin irritation. Harmful if swallowed, inhaled or absorbed through the skin. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more information on the instructions for category G on an EPA chemical resistance category selections chart.

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as barrier laminate or Viton
- Chemical-resistant footwear plus socks
- Goggles or face shield
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading

NET CONTENTS _____ GAL

ACCEPTED
with COMMENTS
In EPA Letter Dated:
12/29/2009

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 10163-273

EPA Reg. No. 10163-273
EPA Est. No.



Produced For:
Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

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 product is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor runoff or drift from the target area. Do not contaminate water when disposing of equipment wash waters.

DIRECTIONS FOR USE

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

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as barrier laminate or Viton
- Chemical-resistant footwear plus socks
- Goggles or face shield
- Chemical-resistant headgear for overhead exposure

GENERAL INFORMATION

Rubigan E.C. fungicide is an emulsifiable concentrate formulation designed to control various foliar and fruit diseases of apples, pears, cherries, grapes, pecans and hops listed in each respective crop section. Rubigan E.C. is a locally systemic fungicide for the prevention or therapeutic control of powdery mildew on roses and field grown ornamentals. Rubigan E.C. controls susceptible fungal diseases by preventing the formation of certain sterol components and other materials necessary for their growth. Rubigan E.C. is absorbed into the plant foliage and is not easily washed off by rain or overhead irrigation. Used as directed, Rubigan E.C. will not harm the foliage or floral tissue of roses. Rubigan E.C. is compatible with most insecticides, miticides and fungicides commonly recommended for the crops listed.

Use Rubigan E.C. as a foliar spray to control the diseases listed in the apples, pears, cherries grapes, pecans and hops crop sections. **Note:** Use recommendations for Rubigan E.C. for all crops are made according to geographic area: **Eastern United States** (East of the Rocky Mountain continental divide); and **Western United States** (West of the Rocky Mountain continental divide). Follow use recommendations in the appropriate section for your area.

GENERAL USE PRECAUTIONS

- Do not graze cover crops treated with Rubigan E.C. or harvest forage for silage or hay.
- Apply Rubigan E.C. with ground application equipment only.
- Do not apply Rubigan E.C. through any type of irrigation system.
- Observe rate restrictions and preharvest intervals outlined for each crop.

MIXING AND APPLICATIONS DIRECTIONS

Fill the spray tank to at least one-half the required spray volume and start agitation. Add (in order) dry flowable, wettable powder and flowable (aqueous suspension) products to the spray tank. Then add the recommended rate of Rubigan E.C. followed by other emulsifiable concentrate and solution products. Allow time for thorough mixing after adding each product. Finish filling spray tank and maintain continuous agitation in the spray tank during mixing, filling and spraying operations.

Tank Mixing

For control of each disease listed in the following table, Rubigan E.C. may be used alone or in combination (tank mix) with a protectant fungicide active against each respective disease. Use the protectant fungicides at applications rates and according to their respective product labels. This product must not be tank mixed with products containing label prohibitions against tank mixing. No label dosage rates should be exceeded and the most restrictive label limitations and precautions must be adhered to.

Use of Surfactants

When used alone, tank mix Rubigan E.C. with a surfactant. Surfactants compatible with Rubigan E.C. include R-56 Spreader Sticker, Wilbur Ellis Co.; Bio-88 Spreader Activator, Kalo Laboratories; Regulaid, Kalo Laboratories; Leafact 80A Activator, Puregro Co.; Induce, Helena Chemical Co.; LI-700, Loveland Industries; Triton B-1956, Rohm and Haas, Latron B-1956, Rohm and Haas, or others where prior use has shown compatibility. Certain states require registration of surfactants. Where applicable, verify that the surfactant is registered for agricultural use in your state.

Spray Volume and Concentration

Mix the recommended dosage of Rubigan E.C. (consult appropriate crop section for your area) in sufficient water to ensure adequate coverage and apply as a concentrate or dilute spray using ground application equipment only. Attention should be given to sprayer speed and calibration, wind speed, and tree and vine foliar canopy to ensure adequate spray coverage with Rubigan E.C.

Rate Ranges and Spray Intervals

Where a rate range is provided in use directions for Rubigan E.C., use higher rates when moderate to severe infection conditions exist or are anticipated. Where a range in the spray interval is indicated (e.g. 7 to 10 days), use the shortest spray interval within the indicated spray interval range if moderate to severe infection conditions exist. Climatic conditions, varietal susceptibility, disease history and current disease status of the orchard or vineyard must be considered when choosing rates and spray schedules for Rubigan E.C. Begin applications of Rubigan E.C. according to label directions or as recommended by your state agricultural experiment station or extension service specialist.

USE AND DOSAGE INFORMATION

Apples and Pears: Disease Control Rates for Eastern United States (East of the Rocky Mountain Continental Divide) Rubigan E.C.¹

Crop	Use rate per acre (fl oz)	Use rate per 100 gal of water dilute ² (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Disease (Growth stage of tree) Rubigan E.C. spray mix				
Apples Scab (Green tip – cover sprays ³) Rubigan E.C. & protectant	8-12	3-4	7-10	Scab- When Rubigan E.C. is used to control scab, at least two consecutive applications should be applied. Scab – Post Infection Spray Schedule: Apply "1 st spray" within 96 hours from the beginning of the targeted infection period. Apply the "2 nd spray" within 7 days of the "1 st spray". Growers who do not have access to accurate on-farm scab infection period data can not make effective use of this spray schedule. Tank Mixing (Rubigan E.C. and Protectant): When tank- mixed with a protectant fungicide use recommended rates of the protectant fungicide. Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application and more than 48 fl oz per season. Do not apply more than 4 times per year.
Scab – Post-Infection (Green tip – cover sprays ³) Rubigan E.C. & protectant 1 st spray 2 nd spray	8-12 8-12	3-4 3-4	7	
Powdery Mildew (Tight cluster – cover sprays)	8-12	3-4	14	
Rusts (Tight cluster – 2 nd cover spray)	8-12	3-4	7-10	
Pears Scab (Petal fall – cover sprays) Rubigan E.C. & protectant	8-12	3-4	7-10	Application timing: After petal fall (see Restrictions) Tank Mixing (Rubigan E.C. and Protectant): When tank-mixed with a protectant fungicide use recommended rate of the protectant fungicide. Restrictions: Do not apply to pears until after petal fall. Such application(s) will only control scab, powdery mildew and rust infections that occur after petal fall. Do not apply more than 12 fl oz of Rubigan E.C. per acre per application and more than 48 fl oz per acre per season. Do not apply more than 4 times per year. Do not apply within 30 days of harvest.
Powdery Mildew and Rusts (Petal fall – cover sprays)	8-12	3-4	14	

1. When using "tree row volume" calculations, do not apply less than 6 fl oz of Rubigan E.C. per acre. Use a surfactant when Rubigan E.C. is applied alone. See "Use of Surfactants" section in the General Information section.
2. Dilute sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.
3. It is recommended that Rubigan E.C. be tank mixed with a protectant fungicide for purposes of apple scab resistance management. Rubigan E.C., however, may be applied alone from green tip to tight cluster. During this period, apply Rubigan E.C. at 8-12 fl oz/acre of 3-4 fl oz per 100 gallons of water on a 7-day spray interval. If the last planned spray application of Rubigan E.C. occurs within the green tip to tight cluster window, Rubigan E.C. must be tank mixed with a protectant fungicide.

Cherries: Disease Control Rates for Eastern United States (East of the Rocky Mountain Continental Divide)

Rubigan E.C.¹

Crop Disease Growth Stage	Use rate per acre (fl oz)	Use rate per 100 gal. of water dilute ² (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Cherries Leaf spot and Powdery Mildew (Petal fall – Post-harvest)	6-12	3-4	7-10	Application timing: Begin applications at "petal fall" and continue until "harvest". One or two "post-harvest" applications may be made within 45 days after "harvest". If an "alternate row" spray program is used, do not exceed a 7-day spray interval. Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application and more than 36 fl oz per acre prior to "harvest". Rubigan E.C. may be applied up to and after "harvest". Do not apply more than 4 times per year.

¹Use a surfactant when Rubigan E.C. is applied alone. See "Use of Surfactants" section in the General Information section.

²Dilute Sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

Grapes: Disease Control Rates for Eastern United States (East of the Rocky Mountain Continental Divide)

Rubigan E.C.¹

Crop Disease Growth Stage	Use rate per acre (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Grapes Powdery Mildew Pre-bloom sprays Post bloom Summer sprays	2-4 4-6 5-6	14-18 14-18 14-18	Application timing: Rubigan E.C. may be applied alone or in tank mix combinations with recommended rates of a protectant fungicide, insecticide and/or miticide. Begin applications as recommended by your State Extension Specialist or Agricultural Experiment Station, or Certified Pest Control Advisor. Use rates per acre as specified by the crop phenology. Restrictions: Do not apply more than 6 fl oz of Rubigan E.C. per acre per application and 19 fl oz per acre per season. Do not apply more than 4 times per year. Precautions: Use of Rubigan E.C. at the higher labeled rates prior and just after bloom may result in slight foliar effects consisting of leaf cupping and/or darker green leaf color, however, these effects do not affect the fruit yield or quality. Preharvest Interval: Do not apply within 21 days of harvest.

¹Use a surfactant when Rubigan E.C. is applied alone.

Pecans: Disease Control Rates for Eastern United States (East of the Rocky Mountain Continental Divide)

Crop Disease	Use rate per acre (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
<p>Pecans Scab and Powdery Mildew</p>	<p>9-12</p>	<p>7-10</p>	<p>Precautions: Use the higher rate range of the Rubigan E.C. rates during conditions suitable for heavy disease infection (i.e. for scab, several hours of leaf wetting at temperatures above 50°. Use ground equipment only.</p> <p>Spray Volume Per Acre: Dilute Spray (200 or more gallons per acre): Apply Rubigan E.C. at the rate of 3 or more fl. ozs. Per 100 gallons of water in uniform spray applied to the point of run-off with conventional ground spray equipment. Do not exceed 12 fl. ozs. per acre.</p> <p>Application timing: For the control of scab and powdery mildew, apply Rubigan E.C. at 7 to 10 day schedule starting at bud break. Applications should continue up to and including the point where nuts are up to one-half inch (1/2") long. Thereafter, Rubigan E.C. should be used in tank-mix combination with a protectant fungicide at its recommended use rate. The Rubigan E.C. application prior to switching to a program utilizing a protectant-only application should include a protectant fungicide (a nonsterol-inhibiting fungicide with limited curative activity) as a tank-mix combination.</p> <p>Restrictions: Do not use Rubigan E.C. on the Wichita variety. Do not apply more than 48 fl. ozs. of Rubigan E.C. per acre per season of Pecans. Do not apply more than 4 times per year.</p> <p>Preharvest Interval: Do not apply within 30 days of harvest.</p>

Apples: Disease Control Rates for Western United States (West of the Rocky Mountain Continental Divide)

Rubigan E.C.¹

Crop Disease (Spray Schedule)	Use rate per acre (fl oz)	Use rate per 100 gal of water dilute ² (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Apples Scab (Regular)	8-12	2-3	7-10	<p>Scab- Application Timing: Begin applications at "green tip" or when environmental conditions become favorable for primary scab development.</p> <p>Scab – Post Infection Spray Schedule: Apply "1st spray" within 96 hours from the beginning of the first "primary scab" infection period. Apply the "2nd spray" within 7 days if a scab infection period has occurred within 3 days of the "1st spray". If not, apply within 96 hours after the beginning of the next scab infection period.</p> <p>Growers who do not have access to accurate on-farm scab infection period data cannot make effective use of this spray schedule.</p> <p>Powdery Mildew: Apply Rubigan E.C. at the following stages of growth: "green tip", "pre-pink" or "pink" "petal fall" and "first cover".</p> <p>Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application or more than 48 fl oz per are per season. Do not apply more than 4 times per year.</p> <p>Preharvest Interval: Do not apply within 30 days of harvest.</p>
(Post-Infection)				
1 st spray	8-12	2-3	-	
2 nd spray	8-12	2-3	7	
Powdery Mildew	8-12	2-3	14	

¹When using "tree row volume" calculations, do not apply less than 6 fl oz of Rubigan E.C. per acre. When Rubigan E.C. is used for "Post-Infection" control of scab do not apply less than 8 fl oz per acre.

²Dilute sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

Pears: Disease Control Rates for Western United States (West of the Rocky Mountain Continental Divide)

Rubigan E.C.¹

Crop Disease (Spray Schedule)	Use rate per acre (fl oz)	Use rate per 100 gal of water dilute ² (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Pears Scab (Petal fall-cover sprays)	8-12	2-3	7-10	<p>Application timing: Rubigan E.C. may be applied alone or in tank mix combination with recommended rates of a protectant fungicide.</p> <p>Scab and Powdery Mildew: Do not apply to pears until after petal fall. Such application(s) of Rubigan E.C. will control only scab or powdery mildew resulting from infection periods occurring after petal fall.</p> <p>Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application or more than 48 fl oz per acre per season. Do not apply more than 4 times per year.</p> <p>Preharvest Interval: Do not apply within 30 days of harvest.</p>
Powdery Mildew (Petal fall – cover sprays)	8-12	2-3	14	

¹When using "tree row volume" calculations, do not apply less than 6 fl oz of Rubigan E.C. per acre. When Rubigan E.C. is used for "Post-Infection" control of scab do not apply less than 8 fl oz per acre.

²Dilute sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

Cherries: Disease Control Rates for Western United States (West of the Rocky Mountain Continental Divide)
Rubigan E.C.¹

Crop Disease Spray Schedule	Use rate per acre (fl oz)	Use rate per 100 gal. of water dilute ² (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Cherries Leaf spot (late bloom-harvest) Powdery Mildew (late bloom-harvest)	6-12	2-3	14-21	<p>Application timing: Rubigan E.C. may be applied alone or in tank mix combination with recommended rates of a protectant fungicide. Begin applications at "late bloom" to "petal fall" and continue until "harvest".</p> <p>Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application or more than 48 fl oz per acre prior to "harvest". Rubigan E.C. may be applied up to "harvest". Do not apply more than 4 times per year.</p>

¹Dilute sprays are sprayed until point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

Grapes: Disease Control Rates Western United States (West of the Rocky Mountain Continental Divide)
Rubigan E.C.¹

Crop Disease (Spray Schedule)	Use rate per acre (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Grapes Powdery Mildew (Pre-bloom) 2 weeks Pre-bloom Full Bloom 1 st Post-bloom 2 nd Post-bloom (Pre-bloom/Extended) 2 weeks Pre-bloom Full-bloom 1 st Post-bloom 2 nd Post-bloom 3 rd Post-bloom (Full bloom) Full-bloom 1 st Post-bloom 2 nd Post-bloom 3 rd Post-bloom	2-3 4 6 6 2 3 4 5 5 3 4 6 6	14-18 14-18 14-18 14-18 14-18 14-18 14-18 14-18 14-18 14-18 14-18 14-18 14-18	<p>Application timing: Rubigan E.C. may be applied alone or in tank mix combination with recommended rates of a protectant fungicide. Depending on the length of time from "full bloom" to "veraison", amount of foliar canopy and/or the Rubigan E.C. spray interval, choose one of the three spray schedules.</p> <p>Use sulfur on an appropriate schedule to maintain "mildew free" foliage prior to the initial Rubigan E.C. application.</p> <p>Precautions: Use of Rubigan E.C. at higher than recommended rates during the "pre-bloom" stage of growth may result in slight foliar effects consisting of leaf cupping and/or darker green leaf color, however, these effects do not affect the fruit yield or quality.</p> <p>Restrictions: Do not apply more than 6 fl oz of Rubigan E.C. per acre per application or more than 19 fl oz per acre per season. Do not apply more than 4 times per year.</p> <p>Preharvest Interval: <u>Do not apply within 21 days of harvest.</u></p>

Pecans: Disease Control Rates for Western United States (West of the Rocky Mountain Continental Divide)

Crop Disease	Use rate per acre (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
<p>Pecans Scab and Powdery Mildew</p>	<p>9-12</p>	<p>7-10</p>	<p>Precautions: Use the higher rate range of the Rubigan E.C. rates during conditions suitable for heavy disease infection (i.e. for scab, several hours of leaf wetting at temperatures above 50°. Use ground equipment only.</p> <p>Spray Volume Per Acre: Dilute Spray (200 or more gallons per acre): Apply Rubigan E.C. at the rate of 3 or more fl. ozs. Per 100 gallons of water in uniform spray applied to the point of run-off with conventional ground spray equipment. Do not exceed 12 fl. ozs. per acre.</p> <p>Application timing: For the control of scab and powdery mildew, apply Rubigan E.C. at 7 to 10 day schedule starting at bud break. Applications should continue up to and including the point where nuts are up to one-half inch (1/2") long. Thereafter, Rubigan E.C. should be used in tank-mix combination with a protectant fungicide at its recommended use rate. The Rubigan E.C. application prior to switching to a program utilizing a protectant-only application should include a protectant fungicide (a nonsterol-inhibiting fungicide with limited curative activity) as a tank-mix combination.</p> <p>Restrictions: Do not use Rubigan E.C. on the Wichita variety. Do not apply more than 48 fl. ozs. of Rubigan E.C. per acre per season of Pecans. Do not apply more than 4 times per year.</p> <p>Preharvest Interval: Do not apply within 30 days of harvest.</p>

Hops: Disease Control Rates for Washington, Oregon and Idaho.

Crop Disease	Use rate per acre (fl oz)	Maximum spray interval (days)	Number of applications	Use Directions and Restrictions
<p>Hops Powdery Mildew</p>	<p>7</p>	<p>14</p>	<p>2</p>	<p>Restrictions: Do not apply more than 28 fl oz of Rubigan E.C. per acre per year.</p> <p>Make applications when powdery mildew is expected.</p> <p>Preharvest Interval: Do not apply within 10 days of harvest.</p>

ROSES

Apply Rubigan E.C. at the recommended application rate and spray interval. Do not apply Rubigan E.C. more than 3 times per year.

Tank Mixtures

In areas where black spot occurs, Rubigan E.C. should be tank mixed with an EPA registered, commercially available fungicide. Use the recommended label rate of the selected tank mix product for black spot control and the appropriate rate for Rubigan E.C. from the tables below.

Greenhouse Roses

Disease Severity*	Rubigan E.C. Application Rate (fl oz/100 gal)	Spray Interval** (days)
Low	3-5	10-14
Medium	4-6	10-12
High	6-8	7-10

Field Grown Roses

Disease Severity*	Rubigan E. C. Application Rate (fl oz/100 gal)	Spray Interval** (days)
Low	4-5	10-14
Medium	6-8	10-12
High	8-12	7-10

*Low (1-30), Medium (30-60), High (60-100) percent of leaves on individual plants infected with disease organism.

**Interval denotes expected length of disease control. After this period, rotate to another fungicide with a non-sterol inhibiting mode of action. Do not apply Rubigan E.C. more than once in 60 days, or more than 3 times per year.

Note: When applied at labeled rates, Rubigan E.C. may cause leaf puckering and other growth effects on the foliage of rose cultivars growing under cool, foggy, or overcast conditions. Plants growing under such conditions develop more slowly and are more sensitive to these growth effects. The rose cultivars "Royalty" and "Visa" have exhibited growth effects under these conditions while the same cultivars growing under sunny conditions have exhibited no such effects.

Field or Container Grown Ornamentals

Apply Rubigan E.C. at the application rate and spray interval listed. Do not apply Rubigan E.C. more than 3 times per year.

Ajuga, Begonia, Calendula, Chrysanthemum, Dahlia, Delphinium, Hydrangea, Phlox, Sweet Pea, Verbena, Zinnia

Rubigan E. C. Application Rate * (fl oz/100 gal)	Spray Interval** (days)
3-5	60

Crepe Myrtle, Euonymus, Photinia

Rubigan E. C. Application Rate * (fl oz/100 gal)	Spray Interval** (days)
6-10	60

*Apply Rubigan E. C. at the low rate and maximum spray interval only when using as a preventative or when leaf infection is less than 10 percent. Use the higher rates and shorter spray intervals when greater than 10 percent leaf infection occurs and environmental conditions encourage disease spread.

**Interval denotes expected length of disease control. After this period, rotate to another fungicide with a non-sterol inhibiting mode of action. Do not apply Rubigan E.C. more than once in 60 days, or more than 3 times per year.

STORAGE AND DISPOSAL

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

Pesticide Storage: Avoid freezing. Do not store near heat or open flame. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose of waste.

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

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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. After cleaning, if recycling is not available, 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.

**FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.
For other product information, contact GOWAN COMPANY or see Material Safety Data Sheet.**

NOTICE ON CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer and User.

Gowan Company warrants that his product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY

TO THE FULLEST EXTENT PERMITTED BY LAW, GOWAN COMPANY'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY'S SOLE DISCRETION.

Rubigan® is a registered trademark of Gowan Company, L.L.C.
Chemtrec® is a registered trademark of American Chemistry Council, Inc.

EPA Text Pending: Rubigan EC (pending 11-10-09)