100-1098 8/10/2012 Packet 1/92

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D C 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

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AUG 1 0 2012

Subject Abound® Flowable Fungicide
EPA Reg No 100-1098
EPA Decision Number 447234
Your supplemental label submitted on March 28, 2011 and master label submitted on July 31, 2012 for additional crops as noted below

Dear Dr Rezaaiyan

The labels referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), for use on Berries, Bushberry Subgroup 13-07B, Berries, Caneberry Subgroup 13-07A, Bulb Vegetables, Crop Group 3-07, Citrus Fruit Crop Group 10-10, Cranberry Subgroup 13-07H (except Strawberry), Grapes and Other Small Fruit Vine Climbing Subgroup 13-07F (except fuzzy kiwifruit), Herbs and Spices (except black pepper) Crop Group 19, Wasabi, Oilseed Crops, Crop Group 20, Peppers and Other Fruiting Vegetables, Strawberry and Low Growing Berry Subgroup 13-07G (except Cranberry), Tomatoes and Tomatillos Subgroup 8-10A, Tropical Fruit (including Dragon Fruit), and Tuberous and Corm Vegetables 1C, as amended are acceptable

One copy of the labels stamped "Accepted" is enclosed for your records These labels supersede all labels previously accepted for this product Please submit one copy of the final printed labels before the product is released for shipment If you have any questions, please contact Heather Garvie by phone at 703-308-0034 or via email at garvie heather@epa gov

Sincerely,

For Cynthia Giles-Parker
Acting Product Manager 20
Fungicide Branch
Registration Division

Enclosure Stamped master and supplemental labels "Accepted"

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[Master Label]

GROUP 11 FUNGICIDES

Abound® Flowable Fungicide

Broad spectrum fungicide for control of plant diseases

For Control of Certain Post Harvest Diseases in Banana and Citrus

Active Ingredient	
Azoxystrobin methyl (*E*)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate*	22 9%
Other Ingredients	77 1%
Total	100 0%

Contains 2 08 lb of active ingredient per gallon
*IUPAC

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet

Reformulation is prohibited See individual container labels for repackaging limitations

EPA Reg No 100-1098

EPA Est

ACCEPTED

AUG 1 0 2012

Under the Federal Insecticide Fungicide and Rodenticide Act as amended for the pesticide registered under EPA Reg No 100-1098

Net Contents

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FIRST AID	
If on skin or clothing	• 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
Have the product container or label with you when calling a poison control center or doctor or going for treatment	
HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill Leak Fire or Accident) Call **1-800-888-8372**	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if absorbed through skin Avoid contact with skin eyes or clothing Wash thoroughly with soap and water after handling and before eating drinking chewing gum, using tobacco or using the toilet Remove and wash contaminated clothing before reuse Wear long-sleeved shirt and long pants, socks and shoes and chemical resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber

Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below If you want more options follow the instructions for 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 polyvinyl chloride nitrile rubber or butyl rubber
- Shoes plus socks

User Safety Requirements

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

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Engineering Controls

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

IMPORTANT When reduced PPE is worn because a closed system is being used handlers must be provided all PPE specified above for applicators and other handlers and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown

User Safety Recommendations

Users should

- Wash hands before eating drinking chewing gum using tobacco or using the toilet Wash thoroughly with soap and water after handling
- Remove clothing/PPE 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

The active ingredient, azoxystrobin, in this product can be persistent for several months or longer Azoxystrobin has degradation products which have properties similar to chemicals which are known to leach through soil to ground water under certain conditions as a result of agricultural use Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates Do not apply directly to water except as specified on this label For terrestrial uses do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark Drift and runoff may be hazardous to aquatic organisms in neighboring areas Do not contaminate water when disposing of equipment washwater or rinsate

Notify State and/or Federal authorities and Syngenta immediately if you observe any adverse environmental effects due to use of this product

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CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and 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

The Directions for Use of this product must be followed carefully 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 manner of use or application weather or crop conditions, presence of other materials or other influencing factors in the use of the product which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors

SYNGENTA 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 subject to the inherent risks referred to above when used in accordance with directions under normal use conditions To the extent permitted by applicable law (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA and (2) Buyer and User assume the risk of any such use TO THE EXTENT PERMITTED BY APPLICABLE LAW SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL

To the extent permitted by applicable law in no event shall SYNGENTA be liable for any incidental consequential or special damages resulting from the use or handling of this product **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND 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 SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT**

SYNGENTA and Seller offer this product, and Buyer and User accept it subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA

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DIRECTIONS FOR USE

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

Use of Abound through airblast application equipment on grapes is prohibited in the following townships and boroughs of Erie County Pennsylvania

North East Harborcreek Lawrence Park Erie Presque Isle MillCreek Fairview Girard and Springfield

This prohibition is intended to help eliminate phytotoxicity problems with apples observed in this geographic location

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL

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), notification to workers, and restricted-entry interval The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard

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

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks

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PRODUCT USE PRECAUTIONS

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES

ATTENTION

Abound is extremely phytotoxic to certain apple varieties

AVOID SPRAY DRIFT Extreme care must be used to prevent injury to apple trees (and apple fruit)

DO NOT spray Abound where spray drift may reach apple trees

DO NOT spray when conditions favor drift beyond area intended for application Conditions which may contribute to drift include thermal inversion, wind speed and direction sprayer nozzle/pressure combinations spray droplet size, etc Contact your State extension agent for spray drift prevention guidelines in your area

DO NOT use spray equipment which has been previously used to apply Abound to spray apple trees Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR

PRODUCT INFORMATION

Abound is a broad spectrum preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases Abound Flowable Fungicide is a member of Syngenta's Plant Performance™ product line and may also improve the yield and/or quality of the crop These additional benefits are due to positive effects on plant physiology The effects may vary according to factors such as the crop crop hybrid or environment Abound may be applied as a foliar spray in alternating spray programs or in tank mixes with other registered crop protection products All applications must be made according to the use directions that follow

Restrictions for Resistance Management Purposes

Do not use in greenhouses

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PRODUCT USE INSTRUCTIONS

Application Thorough coverage is necessary to provide good disease control Make no more spray solution than is needed for application Avoid spray overlap as crop injury may occur

Adjuvants When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification is recommended

Efficacy Under certain conditions conducive to extended infection periods use another registered fungicide for additional applications if maximum amount of Abound has been used If resistant isolates to Group 11 fungicides are present efficacy can be reduced for certain diseases The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, with highly susceptible varieties or when environmental conditions are conducive to disease

INTEGRATED PEST (DISEASE) MANAGEMENT

Abound should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required Cultural practices known to reduce disease development should be followed This should include selection of varieties with disease tolerance removal of plant debris in which inoculum overwinters, and proper timing and placement of irrigation Consult your local agricultural authorities for additional IPM strategies established for your area Abound may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development

Crop Tolerance Plant tolerance has been found to be acceptable for all crops on the label, however not all possible tank-mix combinations have been tested under all conditions When possible, it is recommended to test the combinations on a small portion of the crop to ensure that a phytotoxic response will not occur as a result of application See Product Use Precautions for apple phytotoxicity information

RESISTANCE MANAGEMENT

GROUP 11 FUNGICIDES

Abound (azoxystrobin) is a Group 11 fungicide The mode of action for Abound is the inhibition of the Qol (quinone outside) site within the electron transport system [Group 11] Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly Because resistance development cannot be predicted use of this product should conform to resistance management strategies established for the crop and use area Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label Resistance management strategies may include alternating and/or tank-mixing with products having different modes of action or limiting the

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total number of applications per season Syngenta encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label

Follow the crop specific resistance management recommendations in the directions for use

If no resistance recommendation on number of applications is specified in the directions for use follow the recommendations in the table below

If planned total number of fungicide applications per crop is	1	2	3	4	5	6	7	8	9	10	11	12
Recommended Solo QoI fungicide sprays	1	1	2	2	2	2	2	3	3	3	3	4
Recommended QoI fungicide sprays in mixture (tank-mix or formulated)	1	2	2	2	2	3	3	4	4	5	5	6

In situations requiring multiple sprays develop season long spray programs for Group 11 (QoI) fungicides In crops where two sequential Group 11 fungicide applications are made they should be alternated with two or more applications of a fungicide that is not in Group 11 If more than 12 applications are made observe the following guidelines

- When using a QoI fungicide as a solo product the number of applications must be no more than ⅓ (33%) of the total number of fungicide applications per season
- For QoI mixes in programs in which tank mixes or pre mixes of QoI with mixing partners of a different mode of action are utilized, the number of QoI containing applications must be no more than ½ (50%) of the total number of fungicide applications per season
- In programs in which applications of QoI are made with both solo products and mixtures, the number of QoI containing applications must be no more than ½ (50%) of the total number of fungicide applications per season

If a Group 11 fungicide is applied to the seed or soil do not make another application with a Group 11 fungicide for at least 3 weeks

Rotational Crop Restrictions

The following crops may be planted at the specified interval following application of Abound fungicide

Crop Rotational Interval

	Plant back interval
Buckwheat millet, oats, and rye	12 months
All other crops with Azoxystrobin registered uses	0 days

SOILBORNE/SEEDLING DISEASE CONTROL

For those crops that have specific use directions for soilborne disease control Abound can provide control of many soilborne diseases if applied early in the growing

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season Specific applications for soilborne diseases include in-furrow applications and banded applications applied over the row, either shortly after plant emergence or during herbicide applications or cultivation These applications will provide control of pre- or postemergence damping off and diseases that infect plants at the soil-plant interface

The use of either type of application depends on the cultural practices in the region In some locations, one type of application may provide better disease control than the other, depending on the timing of the disease epidemic Seedling diseases are generally controlled by in-furrow applications while banded applications are more effective against soilborne diseases that develop later in the season Consult your local expert to get some guidance regarding application type

Under cool, wet conditions, crop injury from soil directed applications can occur

BANDED

- Apply Abound prior to infection as a directed spray to the soil using single or multiple nozzles adjusted to provide thorough coverage of the lower stems and the soil surface surrounding the plants
- Band width should be limited to 7 inches or less
- Apply Abound at a rate of 0 40-0 80 fl oz product (0 10-0 20 oz a i)/1000 row feet For banded applications on 22-inch rows, the maximum application rate is 0 70 fl oz /1000 row feet
- These applications come into contact with the foliage and are counted as foliar applications when considering resistance management
- They may be applied during cultivation or hilling operations to provide soil incorporation

IN-FURROW

- Apply Abound as an in-furrow spray in 3-15 gallons of water at planting
- Mount the spray nozzle so the spray is directed into the furrow just before the seeds are covered
- Use the higher rate when the weather conditions are expected to be conducive for disease development if the field has a history of Pythium problems or if minimum/low till programs are in place

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IN-FURROW APPLICATION RATES

RATE PER 1000 ROW FEET		PRODUCT PER ACRE (fl oz)						
fl oz product	oz a i	22" rows	30" rows	32" rows	34" rows	36" rows	38" rows	40" rows
0 40	0 10	9 5	7 0	6 5	6 1	5 8	5 5	5 2
0 60	0 15	14 3	10 5	9 8	9 2	8 7	8 3	7 8
0 80	0 20	19 0	14 0	13 0	12 2	11 6	11 0	10 4

22" = 23 760 row ft 30" = 17 424 row ft 32" = 16 315 row ft 34" = 15 374 row ft 36" = 14 520 row ft 38" = 13 754 row ft and 40" = 13 068 row ft /Acre

DRIP

Refer to the **Application Instructions Through Irrigation System** section

SPRAY DRIFT MANAGEMENT

To avoid spray drift do not apply when conditions favor drift beyond the target area The interaction of many equipment and weather related factors determine the potential for spray drift AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER

ATTENTION

Abound is extremely phytotoxic to certain apple varieties

AVOID SPRAY DRIFT Extreme care must be used to prevent injury to apple trees (and apple fruit)

DO NOT spray Abound where spray drift may reach apple trees

DO NOT spray when conditions favor drift beyond area intended for application Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations spray droplet size etc Contact your State extension agent for spray drift prevention guidelines in your area

DO NOT use spray equipment which has been previously used to apply Abound to spray apple trees Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties

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AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR

Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat

MIXING AND APPLICATION METHODS

Spray Equipment

Abound may be applied with all types of spray equipment commonly used for making ground and aerial applications Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control

Nozzles

- Equip sprayers with nozzles that provide accurate and uniform application
- Nozzles should be the same size and uniformly spaced across the boom
- Calibrate sprayer before use
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging
- Screens placed on the suction side of the pump should be *16-mesh or coarser*
- Do not place a screen in the recirculation line
- Use 50-mesh or coarser screens between the pump and boom and where required, at the nozzles
- Check nozzle manufacturer s recommendations

Pump

- Use a pump with capacity to
  (1) Maintain 35-40 psi at nozzles
  (2) Provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute
- Use a jet agitator or liquid sparge tube for agitation
- Do not air sparge

For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations For specific local directions and spray schedules, consult the current state agricultural recommendations

Mixing Instructions

- Abound is a suspension concentrate (SC) formulation
- Prepare no more spray mixture than is required for the immediate operation
- Thoroughly clean spray equipment before using this product
- Agitate the spray solution before and during application

- Rinse spray tank thoroughly with clean water after each day s use and dispose of pesticide rinsate by application to an already treated area

Abound Alone (No Tank Mix)

- Add ½-⅔ of the required amount of water to the spray or mixing tank
- With the agitator running add Abound to the tank
- Continue agitation while adding the remainder of the water
- Begin application of the spray solution after Abound has completely dispersed into the mix water
- Maintain agitation until all of the mixture has been sprayed

Abound + Tank Mixtures Abound is usually compatible with all tank-mix partners listed on this label To determine the physical compatibility of Abound with other products use a jar test Using a quart jar add the proportionate amounts of the products to 1 qt of water Add wettable powders and water dispersible granular products first then liquid flowables, and emulsifiable concentrates last After thoroughly mixing, let stand for at least 5 minutes If the combination remains mixed or can be remixed readily it is physically compatible Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank

Abound has demonstrated some phytotoxic effects when mixed with products that are formulated as emulsifiable concentrates (EC) These effects are enhanced if applications are made under cool cloudy conditions and these conditions remain for several days following application In addition adjuvants that contain some form of silicone have also contributed to phytotoxicity

Mixing in the Spray Tank

- Add ½-⅔ of the required amount of water to the spray or mixing tank
- With the agitator running add the tank-mix partner(s) into the tank in the same order as described above
- Allow the material to completely dissolve and disperse into the mix water Continue agitation while adding the remainder of the water and Abound to the spray tank
- Allow Abound to completely disperse
- Spray the mixture with the agitator running

APPLICATION INSTRUCTIONS THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

Application Through Irrigation Systems (Chemigation)

- Use only on crops for which chemigation is specified on this label
- Apply this product only through center pivot solid set, hand move or moving wheel irrigation systems Do not apply this product through any other type of irrigation system

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- Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water
- Apply in 0 1-0 25 inches/acre Excessive water may reduce efficacy
- If you have questions about calibration you should contact State Extension Service specialists equipment manufacturers or other experts
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place
- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person shall shut the system down and make necessary adjustments should the need arise

Spray Preparation Chemical tank and injector system should be thoroughly cleaned Flush system with clean water

Drip Irrigation Abound may be applied through drip irrigation systems for soil-borne disease control The soil should have adequate moisture capacity prior to drip application

Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start whichever is shorter For maximum efficacy, subsequent irrigation (water only) should be delayed for at least 24 hours following drip application

Sprinkler Irrigation

- Apply this product through sprinkler irrigation systems including center pivot lateral move end tow side [wheel] roll, traveler, big gun, solid set or hand move irrigation systems
- Do not apply this product through any other type of irrigation system except as specified on this label
- Apply with center pivot or continuous-move equipment distributing ½ acre-inch or less during treatment
- In general, use the least amount of water required for proper distribution and coverage
- If stationary systems (solid set, handlines or wheel lines other than continuous-move) are used this product should be injected into no more than the last 20-30 minutes of the set
- Do not apply when winds are greater than 10-15 mph to avoid drift or wind skips
- Do not apply when wind speed favors drift beyond the area intended for treatment
- Plant injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform treated water
- Thorough coverage of foliage is required for good control
- Good agitation should be maintained during the entire application period

If you have questions about calibration you should contact State Extension Service specialist, equipment manufacturers or other experts

Operating Instructions

1 Do not apply when wind speed favors drift beyond the area intended for treatment

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2 The system must contain a functional check valve vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow

3 The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump

4 The pesticide injection pipeline must also contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down

5 The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops

6 The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected

7 Systems must use a metering pump, such as a positive displacement injection pump (e g diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock

8 Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person shall shut the system down and make necessary adjustments should the need arise

9 Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place

Center Pivot Irrigation Equipment

Notes (1) Use only with drive systems which provide uniform water distribution (2) Do not use end guns when chemigating Abound through center pivot systems because of non-uniform application

- Determine the size of the area to be treated
- Determine the time required to apply ⅛-½ inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer When applying Abound through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution Run the system at 80-95% of the manufacturer s rated capacity
- Using water determine the injection pump output when operated at normal line pressure

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- Determine the amount of Abound required to treat the area covered by the irrigation system
- Add the required amount of Abound and sufficient water to meet the injection time requirements to the solution tank
- Make sure the system is fully charged with water before starting injection of the Abound solution Time the injection to last at least as long as it takes to bring the system to full pressure
- Maintain constant solution tank agitation during the injection period
- Continue to operate the system until the Abound solution has cleared the sprinkler head

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval When applying Abound through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution
- Determine the amount of Abound required to treat the area covered by the irrigation system
- Add the required amount of Abound into the same quantity of water used to calibrate the injection period
- Operate the system at the same pressure and time interval established during the calibration
- Stop injection equipment after treatment is completed Continue to operate the system until the Abound solution has cleared the last sprinkler head

Specific Instructions for Public Water Systems

1 Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year

2 Chemigation systems connected to public water systems must contain a functional reduced-pressure zone back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe

3 The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump

4 The pesticide injection pipeline must contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down

5 The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump when the water pressure decreases to the point where pesticide distribution is adversely affected

6 Systems must use a metering pump such as a positive displacement injection pump (e g diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock

7 Do not apply when wind speed favors drift beyond the area intended for treatment

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DIRECTIONS FOR USE

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Alfalfa (*See* Nongrass Animal Feeds Forage Fodder Straw and Hay)			
Almonds	Alternaria Leaf and Fruit Spot (*Alternaria alternata*) Anthracnose (*Colletotrichum acutatum*) Leaf Blight (*Seimatosporium lichenicola*) Leaf Rust (*Tranzschelia discolor*) Scab (*Cladosporium carpophilum*) Shot Hole (*Wilsonomyces carpophilus*)	6 0-15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season following the resistance management guidelines Applications may be made by ground air or chemigation For aerial applications apply in a minimum of 15 GPA Thorough and uniform coverage is essential for disease control Reduced efficacy has been observed when uniform coverage cannot be obtained Abound may be applied by air only at growth stages prior to and including 5 weeks after petal fall An adjuvant may be added at specified rates Anthracnose scab and shot hole Begin applications prior to disease development and continue at 7 to 14 day intervals throughout the season
	Brown Rot Blossom Blight (*Monilinia laxa M fructicola)*	12 0 15 5 (0 20 0 25)	Blossom blight Begin applications at early bloom and continue through petal fall Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 28 days of harvest (28 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Artichoke Globe	Ramularia Leaf Spot *(Ramularia cynarae)*	11 0 15 5 (0 18 0 25)	Begin applications prior to or in the early stages of disease development and continue as needed throughout the season at a 2 3 week interval up to and including the day of harvest Do not apply at less than 7 day intervals Applications may be made by ground air or chemigation For ground applications apply in 50-200 gallons of water per acre to obtain coverage without excessive runoff For aerial applications apply in a minimum of 5 gallons of water per acre An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
Specific Use Restrictions 1) Do not apply more than 92 3 fl oz of product/A/season 2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products 3) Abound may be applied the day of harvest (0-day PHI)			
Asparagus	Stemphyllium Purple Spot *(Stemphyllium vesicarium)*	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7 to 14-day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Use a minimum of 10 gallons of water per acre by ground and minimum of 3 gallons per acre by air An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
Specific Use Restrictions 1) Do not apply more than 92 3 fl oz of product/A/season 2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products 3) Do not apply within 100 days of harvest (100 day PHI)			

20/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Bananas Plantains	Black Sigatoka (*Mycosphaerella fijiensis*) Yellow Sigatoka (*Mycosphaerella musicola*)	5 5 8 5 (0 09 0 135)	Abound applications should begin prior to disease development and continue throughout the season every 12 14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 66 4 fl oz of product/A/season
2) Do not apply more than 1 08 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

21/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Barley	Kernel Blight (*Alternaria* spp) Leaf Rust (*Puccinia hordei*)	6 0 12 0 (0 10-0 20)	Abound should be applied prior to disease development up to late head emergence (Feekes 10 5 or Zadok s 59) Protecting the flag leaf is important for maximizing disease control For best results sufficient water volume must be used to provide thorough coverage Abound can be applied by ground air or chemigation A crop oil concentrate adjuvant may be added at 1 0% v/v to optimize efficacy For chemigation apply in 0 1 0 25 inches/A of water Chemigation with excessive water may lead to a decrease in efficacy Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Do not make more than two (2) applications of Abound or other Group 11 fungicide per season
	Barley Stripe (*Drechslera graminea* = *Pyrenophora graminea*) Net Blotch (*Pyrenophora teres*)	9 0 12 0 (0 15-0 20)	
	Powdery Mildew (*Erysiphe graminis f sp hordei*) Stagonospora Blotch (*Stagonospora nodorum*)	12 0 (0 20)	

Specific Use Restrictions

1) Do not apply later than Feekes growth stage 10 5 (Zadok s growth stage 59)
2) Do not apply more than 0 40 lb a i /A/season of azoxystrobin containing products
3) Do not apply within 14 days of grazing or harvest (14 day PHI) for forage and hay
4) Do not apply within 14 days of harvest (14 day PHI) for grain and straw in the following states Arizona Colorado Idaho Montana Nevada New Mexico Oregon West Texas (west of Rt 283 between the Red River and Brady and west of Rt 377 between Brady and Del Rio) Utah Washington and Wyoming
5) Do not apply within 45 days of harvest (45-day PHI) in all other states including East Texas (east of Rt 283 between the Red River and Brady and east of Rt 377 between Brady and Del Rio)

22/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Berries Bushberry Subgroup 13 07B Aronia Berry Blueberry Highbush Blueberry Lowbush Buffalo Currant Chilean Guava Cranberry Highbush Currant Black Currant Red Elderberry European Barberry Gooseberry Honeysuckle Edible Huckleberry Jostaberry Juneberry (Saskatoon Berry) Lingonberry Native Currant Salal Sea Buckthorn Including all cultivars and/or hybrids of these	Alternaria Fruit Rot (*Alternaria* spp) Anthracnose Fruit Rot (*Colletotrichum gloeosporoides*) Botryosphaeria Canker (*Botryosphaeria* spp) Mummyberry (*Monilinia vaccinii corymbosi*) Phomopsis Stem Canker (*Phomopsis vaccinii*) Powdery Mildew (*Sphaerotheca* spp) Septoria Blight (*Septoria* spp)	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7 to 14 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 46 fl oz of product/A/season
2) Do not apply more than 0 75 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Berries, Caneberry Subgroup 13 07A Blackberry Bingleberry Boysenberry Dewberry Lowberry Marionberry Olallieberry Youngberry Loganberry Red and Black Raspberry Wild Raspberry Including all cultivars and/or hybrids of these	Anthracnose (*Spaceloma necator*) (*Elsinoe veneta*) Botryosphaeria Canker (*Botryosphaeria dothidea*) Colletotrichum Rot (*Colletotrichum gloeosporioides*) Leaf Spot (*Septoria rubi*) (*Sphaerulina rubi*) Powdery Mildew (*Sphaerotheca macularis*) Rosette or Double Blossom of Blackberries (*Cercosporella rubi*) Spur Blight (*Didymella applanata*)	6 0-15 5 (0 10 0 25)	Begin applications at onset of disease and continue as required until harvest Make applications on a 7 to 14 day schedule Use a minimum water volume of 10 gallons per acre by ground and a minimum of 3 gallons by air Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Blackberry Rust (*Phragmidium* spp)	10 15 5 (0 16 0 25)	

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Berry, Low Growing Subgroup 13-07G (except Cranberry) See additional crops below	Anthracnose *(Colletotrichum fragariae)* Leather Rot *(Phytophthora cactorum)* Powdery Mildew *(Sphaerotheca maculans)* Suppression of Botrytis on the Foliage *(Botrytis cinerea)*	6 0-15 5 (0 10-0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7- to 10 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates For leather rot control apply 2 applications on a 7 day schedule from late bloom through harvest **For dip applications at transplanting for commercial berry production** For suppression of root and crown rot caused by *Colletotrichum* spp mix 5 8 fl oz of Abound per 100 gallons of water Dip plants for 2 5 minutes Plant treated plants as quickly as possible It is recommended that transplants be washed to remove excess soil prior to dipping For continued anthracnose control follow with foliar applications beginning 2 3 weeks after transplant Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Seedling Root Rot Basal Stem Rot *(Rhizoctonia solani)*	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section
Additional Low Growing Berries Bearberry Bilberry Cloudberry Muntries Partridgeberry including all cultivars and/or hybrids of these			

Specific Use Restrictions

1) Do not apply more than 61 5 fl oz of product/A/season
2) Do not apply more than 1 0 lb a i /A/season of azoxystrobin containing products
3) Do not use in plant propagation nurseries
4) Abound may be applied the day of harvest (0-day PHI)

25/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Brassica Head and Stem Subgroup Broccoli Chinese Broccoli (gai lon) Brussels Sprouts Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Cauliflower Cavalo Broccolo Kohlrabi Including all cultivars and/or hybrids of these	Alternaria Leaf Spot (*Alternaria* spp) Downy Mildew (*Peronospora parasitica)* Pin Rot (*Alternaria* spp)	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7 to 14 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Use a minimum of 10 gallons of water per acre by ground and minimum of 3 gallons per acre by air Do not apply more than two applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

26/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Brassica Leafy Greens Subgroup Broccoli Raab Cabbage Chinese Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens Including all cultivars and/or hybrids of these	Black Spot (*Alternaria* spp) Cercospora Leaf Spot (*Cercospora* spp) White Rust (*Albugo candida*)	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7- to 14 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Seedling Root Rot Basal Stem Rot (*Rhizoctonia solani*)	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 46 fl oz of product/A/season
2) Do not apply more than 0 75 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

27/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Bulb Vegetables Crop Group 3-07 Garlic Leek Onion Bulb Daylily Bulb Fritillaria Bulb Garlic Bulb Garlic Great-Headed Bulb Garlic Serpent Bulb Lily Bulb Onion Bulb Onion Chinese Bulb Onion Pearl Onion Potato Bulb Shallot Bulb Onion Green Chive Fresh Leaves Chive Chinese Fresh Leaves Elegans Hosta Fritillaria Leaves Kurrat Lady s Leek Leek Leek Wild Onion Beltsville Bunching Onion Fresh Onion Green Onion Macrostem Onion Tree Tops Onion Welsh Tops Shallot Fresh Leaves Including all cultivars and/or hybrids of these	**Foliar Diseases** Cladosporium Leaf Blotch *(Cladosporium allii)* Purple Blotch *(Alternaria porri)* Rust *(Puccinia allii)*	6 0-12 0 (0 10 0 20)	For downy mildew make preventative applications on a 5 to 7-day schedule For all other diseases Abound applications should begin prior to disease development and continue throughout the season every 7 14 days following the resistance management guidelines Applications may be made by ground air or chemigation If applications are made by air the higher rates should be used for adequate control An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Mixtures of Abound with insecticides and silicone adjuvants must be tested for crop safety before application to the crop
	Botrytis Leaf Blight *(Botrytis aclada)* Downy Mildew *(Peronospora destructor)*	9 0-15 5 (0 15 0 25)	
	Soilborne Diseases Rhizoctonia Damping Off *(Rhizoctonia solani)*	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions under the **SOILBORNE/SEEDLING DISEASE CONTROL** section If the application is an in furrow application the spray should be made just prior to seed placement so that the majority of the chemical is under the seed This will reduce the potential for phytotoxicity especially if fertilizer is added to the application

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

28/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Canola (see Oilseed Crops for additional information)	Alternaria Blackspot (*Alternaria* spp) Blackleg (*Leptosphaeria maculans*) Sclerotinia Stem Rot (*Sclerotinia sclerotiorum*)	6 0-15 5 (0 10 0 25)	In general apply 7 0 fl oz of Abound at early bud followed by 14 0 fl oz at about 45 days before harvest A third application of 7 0 fl oz may be made 30 days before harvest Specifically for blackleg Abound applications should be made at the 2- to 4 leaf stage For Alternaria or Sclerotinia 9 0 15 5 fl oz product/A should be applied at 10 25% flowering (3 7 days following first flower) Use the higher rate under heavy disease pressure or when conditions are favorable for disease For control of Alternaria alone 8 0 fl oz product/A may be applied at pod stage (approximately 95% petal fall) Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Applications may be made by ground air or chemigation Use a minimum of 10 gallons of water per acre for ground applications

Specific Use Restrictions

1) Do not apply more than 27 6 fl oz of product/A/season
2) Do not apply more than 0 45 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 30 days of harvest (30-day PHI)

29/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Carrots	Early Blight (*Cercospora carotae*) Late Blight (*Alternaria dauci*) White Mold (*Sclerotium rolfsii*) For additional diseases see **Vegetables, Root, Subgroup**	9 0 20 0 (0 15 0 33)	Abound applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Rhizoctonia Root Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 123 fl oz of product/A/season
2) Do not apply more than 2 0 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

Celery	Early Blight (*Cercospora apii*) Late Blight (*Septoria apicola*) For additional diseases see **Leafy Vegetables**	9 0 15 5 (0 15 0 25)	Abound applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Rhizoctonia Root Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

30/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Christmas Trees	Diplodia Tip Blight *(Diplodia pinea)* Lophodermium Needlecast *(Lophodermium pinastri)* Swiss Needlecast *(Phaeocrytopus gaumannii)*	6 0-15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season at 7- to 21 day intervals following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 123 fl oz of product/A/season
2) Do not apply more than 2 0 lb a i /A/season of azoxystrobin-containing products

31/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Citrus Fruit Crop Group 10-10 Calamondin Citron Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma Mandarin Tangerine Including all cultivars and/or hybrids of these See complete list of citrus fruit crops below	Albinism (*Alternaria alternata pv citri*) Alternaria Leaf and Fruit Spot (*Alternaria citri*) Cercospora Leaf Spot (*Cercospora* spp) Diplodia Stem End Rot (*Diplodia natalensis*) Greasy Spot (*Mycosphaerella citri*) Melanose (*Diaporthe citri*) Penicillium Decays Green Mold Whisker Mold Suppression of Blue Mold (*Penicillium* spp) Phomopsis Stem-End Rot (*Phomopsis citri*) Post Bloom Fruit Drop (PFD) (*Colletotrichum acutatum*) Powdery Mildew (*Erysiphe* spp) Scab (*Elsinoe fawcettii*) Sweet Orange Scab (*Elsinoe australis*)	12 0 15 5 (0 20-0 25)	Abound applications should begin prior to disease development and continue throughout the season on 7- to 21 day intervals following the resistance management guidelines Under conditions that favor severe disease epidemics the higher application rates should be used Applications may be made by ground air or chemigation An adjuvant may be added at specified rates A horticultural spray oil should be used to improve control of greasy spot Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Do not make more than four (4) applications of Abound or other Group 11 fungicide per season
	Black Spot (*Guidnardia citricarpa*)	9 0 15 5 (0 15 0 25)	
Pummelo Citrus Hybrid (Uniq fruit only)	**Soilborne Diseases** Seedling Root Rot Basal Stem Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

32/92

Complete List of Citrus Fruit Crops Australian Desert Lime (*Eremocitrus glauca*) Australian Finger Lime (*Microcitrus australasica*) Australian Round Lime (*Microcitrus australis*) Brown River Finger Lime (*Microcitrus papuana*) Calamondin (*Citrofortunella microcarpa*) Citron (*Citrus medica*) Citrus Hybrids *Citrus* spp *Eremocitrus* spp *Fortunella* spp *Microcitrus* spp and *Poncirus* spp Grapefruit (*Citrus paradise*) Japanese Summer Grapefruit (*Citrus natsudaidai*) Kumquat (*Fortunella* spp) Lemon (*Citrus limon*) Lime (*Citrus aurantiifolia*) Mediterranean Mandarin (*Citrus deliciosa*) Mount White Lime (*Microcitrus garrowayae*) New Guinea Wild Lime (*Microcitrus warburgiana*) Orange Sour (*Citrus aurantium*) Orange Sweet (*Citrus sinensis*) Pummelo (*Citrus maxima*) Russell River Lime (*Microcitrus inodora*) Satsuma Mandarin (*Citrus unshiu*) Sweet Lime (*Citrus limetta*) Tachibana Orange (*Citrus tachibana*) Tahiti Lime (*Citrus latifolia*) Tangelo (*Citrus* x tangelo) Tangerine (Mandarin) (*Citrus reticulate*) Tangor (*Citrus nobilis*) Trifoliate Orange (*Poncirus trifoliate*) Uniq Fruit (*Citrus aurantium* Tangelo group) cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Do not use Abound in citrus plant propagation nurseries
4) Abound may be applied the day of harvest (0 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Clover (and stands containing Clover) (See Nongrass Animal Feeds Forage Fodder Straw and Hay)			

34/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Corn Field Pop Sweet (Includes Seed Production)	Rust (*Puccinia sorghi*)	6 0 9 0 (0 10- 0 15)	For gray leaf spot apply Abound at the onset of disease A second application may be required 14 days later if disease pressure persists For all other diseases Abound applications should begin prior to disease development and may continue throughout the season every 7 14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 For field corn and field corn grown for seed do not make more than two (2) applications per season
	Anthracnose Leaf Blight (*Colletotrichum graminicola)* Eye Spot *(Aureobasidium zeae)* Gray Leaf Spot (*Cercospora sorghi)* Northern Corn Leaf Blight (*Setosphaeria turcica)* Northern Corn Leaf Spot (*Cochliobolus carbonum*) Southern Corn Leaf Blight (*Cochliobolus heterostrophus*)	6 0 15 5 (0 10 0 25)	
	Early Application (V4 – V8)	6 0 (0 10)	Abound a member of Syngenta s Plant Performance™ product line may be applied early (V4 – V8) for early season disease control and beneficial physiological benefits If mixing with herbicides other than solo glyphosate products Callisto® Callisto® Xtra or Halex® GT consult your local Syngenta representative
	Soilborne Diseases Rhizoctonia Root and Stalk Rot (*Rhizoctonia solani)*	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 123 fl oz of product/A/season
2) Do not apply more than 2 0 lb a i /A/season of azoxystrobin containing products
3) Do not apply within 7 days of harvest (7 day PHI)

35/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Cotton	Anthracnose (*Glomerella gossypii*) Ascochyta Blight (*A gossypii*) Boll Rot (*A gossypii*) Cotton Rust (*Puccinia schedonnardi*) Hardlock (*Fusarium verticillioides*) Southwestern Cotton Rust (*Puccinia cacabata*)	6 0 9 0 (0 1-0 15)	For optimum disease control Abound applications should begin prior to or in the early stages of disease development Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Minimum application volumes for air and ground are 5 and 10 gallons per acre respectively The first Abound application should be targeted approximately at pinhead square to first bloom to protect the plant from diseases Subsequent application(s) are specified on a 14 to 21 day schedule An additional application may be made depending on environmental conditions and the health of the cotton plant Under poor environmental conditions conducive to seedling disease and poor cotton growth Abound may be applied to early season cotton to suppress damping off and other diseases which result in plant stand loss Do not apply more than two foliar applications of Abound or other Group 11 fungicides before alternating with a fungicide that has a different mode of action Do not make more than three (3) foliar applications of Abound or other Group 11 fungicides per crop per acre per year
	Pythium Seedling Blight (*Pythium aphanidermatum*) Rhizoctonia Seedling Blight (*Rhizoctonia solani*)	**In-Furrow** 0 40 0 80 fl oz product per 1000 row feet (0 10-0 20 oz a i per 1000 row feet)	**Abound Application Directions** Apply Abound as an in furrow spray in 3 7 gallons of water at planting Mount the spray nozzle so the spray is directed into the furrow just before the seed are covered Use the higher rate when the weather conditions are expected to be conducive for disease development if the field has a history of Pythium problems or if minimum/low till programs are in place See the **SOILBORNE/SEEDLING DISEASE CONTROL** section for table illustrating total fluid ounces per acre with various row spacings

Specific Use Restrictions

1) Do not apply more than 27 fl oz of product/crop/season as a foliar spray
2) Abound may be applied up to 45 days before harvest (45-day PHI)

36/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Cranberry Subgroup 13 07H (except Strawberry) Bearberry Bilberry Blueberry Lowbush Cloudberry Lingonberry Muntries Partridgeberry Including all cultivars and/or hybrids of these	Cottonball *(Monilinia oxycocci)* Fruit Rots *(Physalospora vaccinii) (Glomerella cingulata) (Coleophoma empetri)* Lophodermium Twig Blight *(Lophodermium* spp)	6 0-15 5 (0 10 0 25)	Begin applications at 5 10% bloom for fruit rot cottonball and twig blight Continue applications on a 7- to 14 day schedule if conditions are favorable for disease development Applications may be made by ground chemigation or air Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Fairy Ring (suppression) (Psilocybe spp)	15 5 (0 25)	Make the first application at bud break Measure the ring diameter and add 10 feet to that diameter Apply Abound at a rate equivalent to 15 5 fl oz /A in 30 – 100 gallons of water to the affected area Irrigation (1 – 2 hours) following application is advisable to ensure penetration to the base of the plant If necessary make another application 2 – 4 weeks later For ground application ensure adequate water volume for thorough canopy penetration

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Do not treat cranberry fields used for aquaculture of fish and crustacea
4) Do not apply when weather conditions favor drift from treated areas to non target aquatic habitat Applicators should use care in making applications near non target aquatic habitats
5) Do not apply to flooded crop
6) Do not allow release of irrigation or flood water to non-target aquatic habitat for at least 14 days after the last application
7) Do not apply within 3 days of harvest (3 day PHI)

37/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Cucurbits Cantaloupe Chayote Chinese Waxgourd Cucumber Gourds Honeydew Melons *Momordica* spp (bitter melon balsam apple) Muskmelon Watermelon Pumpkin Squash Zucchini Including cultivars and/or hybrids of these	Anthracnose (*Colletotrichum lagenarium*) Belly Rot (*Rhizoctonia solani*) Downy Mildew (*Pseudoperonospora cubensis*) Gummy Stem Blight (*Didymella bryoniae*) Leaf Spots (*Alternaria* spp *Cercospora* spp) Myrothecium Canker *(Myrothecium roridum)* Plectosporium Blight *(Plectosporium tabacinum)* Powdery Mildew (*Sphaerotheca fuliginea Erysiphe cichoracearum*) Ulocladium Leaf Spot (*Ulocladium cucurbitae)*	6 0 15 5 (0 10 0 25)	For both downy and powdery mildew make preventative applications on a 5 to 7 day schedule For belly rot control the first application should be made at the 1 3 leaf crop stage with a second application just prior to vine tip over or 10 14 days later whichever occurs first For all other diseases Abound applications should begin prior to disease development and continue throughout the season every 7 14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not tank mix Abound with crop oil concentrates (COC) methylated spray oil (MSO) or silicon adjuvants Do not tank mix Abound with Malathion Kelthane® Thiodan® Phaser® Lannate® Lorsban® M-Pede® or Botran® Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Do not make more than four (4) foliar applications of Abound or other Group 11 fungicides per crop per acre per year
	Soilborne Diseases Rhizoctonia Root Rot (*Rhizoctonia solani*)	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 1 day of harvest (1-day PHI)

38/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Fruiting Vegetables Crop Group 8 10 **Pepper** Bell Pepper Non-Bell Pepper Sweet Non Bell Pepper **Eggplant** **Okra** **Pepino** Including all cultivars and/or hybrids of these **See specific directions for use for Tomatoes** See complete list of fruiting vegetables below	Anthracnose (*Colletotrichum* spp) Powdery Mildew (*Sphaerotheca* spp)	6 0-15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7- to 14 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Rhizoctonia Seedling Rot (*Rhizoctonia solani)*	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Complete List of Fruiting Vegetables African Eggplant Bell Pepper Eggplant Martynia Nonbell Pepper Okra Pea Eggplant Pepino Roselle Scarlet Eggplant cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 61 5 fl oz of product/A/season
2) Do not apply more than 1 0 lb a i /A/season of azoxystrobin-containing products
3) Abound may be applied the day of harvest (0-day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Grapes and Other Small Fruit Vine Climbing Subgroup 13 07F (except fuzzy kiwifruit) Amur River Grape Kiwifruit Hardy Maypop Muscadines Schisandra Berry Including all cultivars and/or hybrids of these	Black Rot (*Guignardia bidwellii*) Downy Mildew (*Plasmopara viticola*) Phomopsis Cane and Leaf Spot (*Phomopsis viticola*) Powdery Mildew (*Uncinula necator*) **Suppression Only** Botrytis Bunch Rot (*Botrytis cinerea)*	10 0-15 5 (0 16-0 25)	Abound applications should begin prior to disease development and continue throughout the season every 10 14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential foliar applications of Abound or other Group 11 fungicides before alternating with a fungicide that is not in Group 11 **ATTENTION** Abound is extremely phytotoxic to certain apple varieties AVOID SPRAY DRIFT Extreme care must be used to prevent injury to apple trees (and apple fruit) DO NOT spray Abound where spray drift may reach apple trees DO NOT use spray equipment which has been previously used to apply Abound to spray apple trees Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 14 days of harvest (14-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Grasses (grown for seed)	Ergot Stem Diseases Powdery Mildew (*Erysiphe graminis*) Rust (*Puccinia* spp)	6 0-15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 10 to 14-day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 49 fl oz of product/A/season
2) Do not apply more than 0 8 lb a i /A/season of azoxystrobin containing products
3) Do not feed treated straw seed or screenings to livestock
4) Abound may be applied up to 8 days prior to harvest (swathing) (8-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Herbs & Spices (except black pepper) Crop Group 19 Allspice Angelica Anise (seed) Anise star Annatto Balm Basil Borage Burnet Camomile Caper (buds) Caraway Caraway Black Cardamon Cassia (buds) Catnip Celery Seed Chervil (dried) Chive Chive Chinese Cinnamon Clary Clove (buds) Coriander (cilantro or Chinese parsley) (leaf) Coriander (seed) Costmary Culantro (leaf and seed) Cumin Curry (leaf) Dill (seed) Dillweed Fennel Common Fennel Florence (seed) Fenugreek Grains of Paradise Horehound Hyssop Juniper (berry) Lavender Lemongrass Lovage (leaf and seed) Mace Marigold Marjoram Mustard (seed) Nasturtium Nutmeg Parsley (dried) Pennyroyal Pepper White Poppy Seed Rosemary Rue Saffron Sage Savory Summer and Winter Sweet Bay Tansy Tarragon Thyme Vanilla Wintergreen Woodruff Wormwood	Corynespora Blight *(Corynespora cassiicola)* Dill Blight *(Cercosporidium punctum)* Phoma Blight *(Passalora puncta)*	6 0 15 5 (0 10-0 25)	Abound applications should begin at the onset of disease development and continue throughout the season on a 7 day schedule following the resistance management guidelines Applications may be made by ground only An adjuvant may be added at specified rates Use a minimum of 30 gallons of water per acre Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

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Wasabi	Fusarium Rhizome and Root Rot (*Pythium* spp)	6 2-15 4 (0 10-0 25)	Abound applications should begin at the onset of disease development and continue throughout the season on a 7 day schedule following the resistance management guidelines Applications may be made by ground or through the irrigation system (chemigation) An adjuvant may be added at specified rates Use a minimum of 30 gallons of water per acre Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

43/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Leafy Vegetables (except brassica) Amaranth Arugula Cardoon Celery Celtuce Chervil Chrysanthemum Edible Coriander Leaves (Cilantro) Corn Salad Cress Dandelion Dock Endive Fennel Lettuce Head and Leaf Orach Parsley Purslane Radicchio Rhubarb Spinach Swiss Chard Including cultivars and/or hybrids of these	**Foliar Diseases** Alternaria Leaf Spot *(Alternaria sonchi A spp)* Anthracnose *(Microdochium panattonianum Colletotrichum dematium)* Cercospora Leaf Spot *(Cercospora spp)* Septoria Leaf Spot *(Septoria petroselini)* White Rust *(Albugo occidentalis)*	6 0 15 5 0 10-0 25)	For both downy and powdery mildew make preventative applications on a 5 to 7-day schedule For all other diseases Abound applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 **ATTENTION** Applications of Abound to leafy vegetable foliage have contributed to phytotoxicity under certain circumstances Proceed with caution with regard to tank mixes and adjuvants when treating all leafy vegetables with Abound Abound must not be tank mixed on leaf lettuce with Ambush® WP Pounce® WP Aliette® Warrior with Zeon Technology® or another product that may increase the penetration of Abound into the leaf surface such as but not limited to silicone wetters
	Downy Mildew *(Bremia lactucae)* Powdery Mildew *(Eyrisiphe cichoracearum)*	12 0 15 5 (0 20-0 25)	
	Soilborne Diseases Webb Blight Bottom Rot Crater Rot Root Rot *(Rhizoctonia solani)*	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0-day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Legume Vegetables, Dry and Succulent and Legume Vegetables, Foliage of any Cultivar of Bean (*Phaseolus* spp) and Field Pea (*Pisum* spp) Bean (*Lupinus* spp) (includes grain lupin sweet lupin white lupin and white sweet lupin) Bean (*Phaseolus* spp) (includes field bean kidney bean lima bean navy bean pinto bean runner bean snap bean tepary bean wax bean) Bean (*Vigna* spp) (includes adzuki bean asparagus bean blackeyed pea cowpea catjang Chinese longbean crowder pea moth bean mung bean rice bean southern pea urd bean yardlong bean) Bean (Glycine max) Soybean Immature Seed (edamame)	Bean Rust (*Uromyces appendiculatus*)	6 0 (0 10)	Abound applications should begin prior to disease development and continue throughout the season every 7 14 days following the resistance management guidelines Use the higher rates under severe disease pressure Applications may be made by ground air or chemigation An adjuvant may be added at specified rates For rust use of a non-ionic surfactant is recommended Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Alternaria Blight (*Alternaria* spp) Alternaria Leaf Spot (*Alternaria alternata)* Anthracnose (*Colletotrichum lindemuthianum)* Ascochyta Blight (*Mycosphaerella pinodes)* Ascochyta Leaf and Pod Spot (*Ascochyta* spp) Ascochyta Leaf Spot (*Ascochyta phaseolorum)* Rust (*Phakopsora* spp) Southern Blight (*Sclerotium rolfsii*) Web Blight (*Rhizoctonia solani)*	6 0-15 5 (0 10-0 25)	
	Soilborne Diseases Rhizoctonia Root Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section Abound can be applied to the furrow and covering soil at planting time in a 7 inch band Avoid a concentrated stream directly on the seed or delayed emergence may occur

Broad bean (fava bean) (*Vicia faba*) Chickpea (garbanzo bean) (*Cicer arietinum*) Guar (*Cyamopsis tetragonoloba*) Jackbean (*Canavalia ensiformis)* Lablab Bean (hyacinth bean) *(Lablab purpureus)* Lentil (*Lens esculenta*) Pea (*Pisum* spp) (includes dwarf pea edible pod pea English pea garden pea green pea field pea snow pea sugar snap pea) Pigeon Pea (*Cajanus cajan*) Sword Bean *(Canavalia gladiata*)			If using a narrow spray as an in furrow spray adjust the spray stream to hit the soil next to the seed but not hit the seed NOTE Conduct a seed safety test with your crop before making in furrow applications

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Do not apply within 14 days of harvest (14 day PHI) of dry legume vegetables (dry bean and dry pea seeds)
4) Abound may be applied the day of harvest (0 day PHI) for succulent beans and peas
5) For use on soybeans please refer to the soybean crop directions for use

46/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Mint (Fresh or for processing into mint oil)	Powdery mildew (*Erysiphe* spp) Rust (*Puccinia menthae*)	6 0-15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7 to 10 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Seedling Root Rot Basal Stem Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 46 fl oz of product/A/season
2) Do not apply more than 0 75 lb a i /A/season of azoxystrobin-containing products
3) For processed mint do not apply within 7 days of harvest (7 day PHI)
4) For fresh mint Abound may be applied the day of harvest (0 day PHI)

47/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Nongrass Animal Feeds Forage, Fodder, Straw and Hay For pure/mixed stands of the following or stands mixed with grasses Alfalfa (*Medicago sativa* subsp *sativa*) Bean Velvet (*Mucuna pruriens* var *utilis*) Clover (*Trifolium* spp *Melilotus* spp) Kudzu (*Pueraria lobata*) Lespedeza (*Lespedeza* spp) Lupin (*Lupinus* spp) Sainfoin (*Onobrychis viciifolia*) Trefoil (*Lotus* spp) Vetch (*Vicia* spp) Vetch Crown (*Coronilla varia*) Vetch Milk (*Astragalus* spp)	Alternaria Leaf Spot (*Alternaria* spp) Cercospora Leaf Spot (*Cercospora* spp) Downy Mildew (*Peronospora* spp) Powdery Mildew (*Oidium* spp *Erysiphe* spp) Rust (*Phakopsora* spp)	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season Use the higher rates under severe disease pressure Applications may be made by ground air or chemigation Use of an additive such as crop oil concentrate or non ionic surfactant is recommended For management of outbreaks of Asian soybean rust and other Puccinia species on alternate host species such as kudzu lespedeza trefoil and vetch apply Abound to forages grown in the vicinity of soybeans and other legume crops (beans and peas) as a part of an Asian rust disease management strategy Consult with local experts and university extension agents for the latest advice Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 0 25 lb a i /A per cutting
2) Do not apply more than 0 75 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 14 days of grazing or harvest (14-day PHI) for forage and hay
4) Not for use on rangeland

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Oilseed Crops Crop Group 20 Crambe Flax Mustard Indian Mustard Field Mustard Black Rapeseed Rapeseed Indian Safflower Sunflower Including all cultivars and/or hybrids of these See complete list of oilseed crops below	Alternaria Leaf Spot (*Alternaria* spp) Downy Mildew (*Plasmopora halstedii* *Plasmopora helianthi*) Pasmo (*Septoria linicola garass*) Sunflower Rust (*Puccinia helianthi*)	6 0-15 5 (0 1 0 25)	Apply 6 0 fl oz of Abound at early bud followed by 14 0 fl oz at about 45 days before harvest A third application of 7 0 fl oz may be made 30 days before harvest Applications may be made by ground air or chemigation Use a minimum of 10 gallons of water per acre for ground applications Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Complete List of Oilseed Crops Borage Calendula Castor Oil Plant Chinese Tallowtree Cottonseed Crambe Cuphea Echium Euphorbia Evening Primrose Flax Seed Gold of Pleasure Hare s Ear Mustard Jojoba Lesquerella Lunaria Meadowfoam Milkweed Mustard Seed Niger Seed Oil Radish Poppy Seed Rapeseed Rose Hip Safflower Sesame Stokes Aster Sunflower Sweet Rocket Tallowwood Tea Oil Plant Vernonia cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 27 fl oz of product/A/season
2) Do not apply more than 0 45 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 30 days of harvest (30-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Peanuts	**Soilborne Diseases – early season (in furrow application)** Aspergillus Crown Rot (*Aspergillus niger*) Pythium Damping Off (*Pythium* spp) Stem Rot/White Mold Suppression (*Sclerotium rolfsii*)	0 40 0 80 fl oz / 1000 row feet	Apply Abound in furrow at planting for control of various seed/seedling diseases including early season suppression of stem rot See directions and rates under **PRODUCT INFORMATION** section
	Soilborne Diseases – mid late season Rhizoctonia Peg and Pod Rot (*Rhizoctonia solani*) Stem Rot/White Mold (*Sclerotium rolfsii*) **Suppression Only** Cylindrocladium Black Rot (*Cylindocladium crotalariae*) Pythium Pod Rot (*Pythium myriotylum*)	12 0 24 5 (0 20 0 40)	Abound should be applied at approximately 60 and 90 days after planting as a foliar application This application regime may be applied earlier in the season if environmental conditions favor disease development These two applications of Abound will provide protection against the soil borne diseases and will also provide control of the foliar diseases listed for a 10 to 14 day period after each spray Under heavy disease pressure and/or where there is high rainfall and/or irrigation use 18 5 24 5 fl oz /A For light disease pressure and dry environmental conditions (non-irrigated low rainfall) use 12 0-24 5 fl oz /A For control of Pythium a rate of 24 5 fl oz /A is required Additional applications of other fungicides on a leaf spot application schedule will be required to provide season long disease control of the leaf spot diseases Applications may be made by ground air or chemigation An adjuvant may be added at specified rates
	Foliar Diseases Early Leaf Spot (*Cercospora arachidicola*) Late Leaf Spot (*Cercosporidium personatum*) Rust (*Puccinia arachidis*) Web Blotch (*Phoma arachidicola*)	6 0 18 5 (0 10-0 30)	For foliar disease control only a lower rate of Abound may be applied on a 10- to 14 day interval Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 49 fl oz of product/A/season
2) Do not apply more than 0 8 lb a i /A/season of azoxystrobin containing products
3) Do not apply within 14 days of harvest (14 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Pecans	Anthracnose (*Glomerella cingulata*) Scab (*Cladosporium caryigenum*)	6 0 12 0 (0 10 0 20)	Abound applications should begin prior to disease development and continue throughout the season on 7- to 21-day intervals following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 73 8 fl oz of product/A/season
2) Do not apply more than 1 2 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 45 days of harvest (45 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Pistachios	Alternaria Late Blight *(Alternaria alternata)* Botryosphaeria Panicle and Shoot Blight (*Botryosphaeria dothidea*) Septoria Leaf Spot (*Septoria pistaciarum*)	6 0-15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on 7- to 21 day intervals following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 7 days of harvest (7 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Potatoes	Black Dot (*Colletotrichum coccodes)* Early Blight (*Alternaria solani*) Late Blight (*Phytophthora infestans*) Powdery Mildew (*Erysiphe cichoracearum)*	6 0 20 0 (0 10 0 33)	**Early blight** For a 7-day application schedule use Abound 6 2 fl oz product/A For a 14 day application schedule use the 12 0 fl oz product/A rate **Late blight** Apply Abound at 12 0 fl oz product/A on a 7 day schedule Initiate late blight applications in a preventative schedule prior to disease development according to local practices If late blight symptoms develop or conditions favor disease switch immediately to a non-Group 11 fungicide using a 5-day schedule Addition of a spreader/sticker may improve coverage For all other diseases Abound applications should begin prior to disease development and continue throughout the season every 7 14 days following the resistance management guidelines Use the high rate and the shorter interval if disease epidemics are severe Applications may be made by ground air or chemigation Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Black Dot (*Colletotrichum coccodes)* Black Scurf (*Rhizoctonia solani)* Silver Scurf (*Helminthosporium solani)*	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 123 fl oz of product/A/season
2) Do not apply more than 2 0 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 14 days of harvest (14-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Rice	**Sheath/Stem Diseases** Sheath Blight (*Rhizoctonia solani*)	6 0-18 5 (0 10 0 30)	Abound should be applied prior to disease development Applications may be made by ground air or chemigation For aerial application volumes should be 5-10 GPA An adjuvant may be added at specified rates For sheath blight control application rates may vary from 9 0 to 12 0 fl oz /A depending on the growth stage of the rice and the severity of the disease Consult with your local extension personnel or Syngenta representative for the Syngenta Technical Bulletin on sheath blight control For other stem/sheath diseases including stem rot black sheath rot aggregate sheath spot and sheath spot apply when disease is less than 4 inches above water line usually between panicle differentiation (PD) +5 days to PD +10 days or at initial sign of disease Under heavy disease pressure and conditions favorable for disease development a second application may be applied For foliar and panicle diseases apply Abound prior to disease development Abound must be applied as a preventative treatment for blast control and applied prior to favorable conditions for blast development For panicle blast an application should be applied at mid-boot to boot split but prior to full head emergence A second application should be applied when panicles are approximately 60 90% emerged from the boot (7 14 days later) When Abound is being applied for panicle blast on continuous rice acreage (no rotation to other crops) no more than two sequential foliar applications of Abound or other Group 11 fungicides should be made over multiple years before alternating with a fungicide with a different mode of action Do not make more than two foliar applications of Abound or other Group 11 fungicides per acre per season
	Aggregate Sheath Spot (*Ceratobasidium oryzae sativae = Rhizoctonia oryzae-sativae*) Black Sheath Rot (*Gaeumannomyces graminis var graminis*) Sheath Spot (*Rhizoctonia oryzae*) Stem Rot (*Magnaporthe salvinii = Sclerotium oryzae = Nakateae sigmoidea*)	9 0–18 5 (0 15–0 30)	
	Foliar Diseases Brown Leaf Spot (*Cochliobolus miyabeanus*) Leaf Smut (*Entyloma oryzae*) Narrow Brown Leaf Spot (*Cercospora janseana = Cercospora oryzae*)		
	Panicle Diseases Kernel Smut (*Tilletia barclayana = Neovossia barclayana*) Panicle Blast (*Pyricularia grisea*)		

Specific Use Restrictions

1) Do not treat rice fields used for aquaculture of fish and crustaceans
2) Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat Applicators should use care in making applications near non target aquatic habitats
3) Do not apply more than 0 70 lb a i /A/season of azoxystrobin-containing products
4) Do not allow release of irrigation or flood water for at least 14 days after the last application
5) Do not apply within 28 days of harvest (28-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Sorghum	Anthracnose (*Colletotrichum graminicola*) Gray Leaf Spot (*Cercospora sorghi*)	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development Use the high rates under conditions favorable for severe disease pressure dense plant canopies or when susceptible varieties are planted Contact extension personnel for local economic thresholds and timings for specific diseases in your area Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Damping-Off (*Rhizoctonia solani Pythium aphanadermatum*)	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) For grain and stover do not apply more than 0 75 lb a i /A/season of azoxystrobin containing products
2) For forage do not apply more than 0 5 lb a i /A/season of azoxystrobin containing products
3) Do not apply within 14 days of harvest (14 day PHI)

56/92

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Soybean **Soybean, Immature Seed (edamame)**	Aerial Blight (*Rhizoctonia solani)* Alternaria Leaf Spot (*Alternaria* spp) Anthracnose (*Colletotrichum truncatum)* Brown Spot (*Septoria glycines)* Cercospora Blight and Leaf Spot (*Cercospora kikuchii)* Frogeye Leaf Spot (*Cercospora sojina)* Pod and Stem Blight (*Diaporthe phaseolorum* Rust (*Phakopsora* spp)	6 0 15 5 (0 10-0 25)	Abound applications should begin prior to disease development Use the high rates under conditions favorable for severe disease pressure dense plant canopies or when susceptible varieties are planted Contact Extension personnel for local economic thresholds and timings for specific diseases in your area Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Use of a crop oil concentrate or non ionic surfactant with the lower use rate is recommended Soybean rust Abound may be used at 4 fl oz /A when tank mixed with a triazole registered for use on soybean rust Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Rhizoctonia solani (*Rhizoctonia solani)* Southern blight (*Sclerotium rolfsii)*	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not make more than one application at 15 5 fl oz product/acre or 0 25 lb a i /A to soybean forage and hay
3) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
4) Do not apply within 14 days of harvest (14 day PHI) of soybeans (beans)
5) Abound may be applied the day of harvest (0 day PHI) to soybean forage and hay

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Stone Fruits Apricot Cherry Sweet Cherry Tart Nectarine Peach Plum Plumcot Prune	Brown Rot Blossom Blight and Fruit Rot (*Monilinia fructicola M laxa*)	12 0 15 5 (0 20-0 25)	For brown rot blossom blight begin applications at early bloom and continue through petal fall For brown rot on fruit Abound may be applied to fruit up to the day of harvest For scab begin applications at petal fall and continue at 7 to 14-day intervals For all other diseases begin application at the onset of disease as a protectant fungicide and continue on a 7 to 14 day schedule For peaches only 9 0-15 5 fl oz of Abound may be used for scab control Applications may be made by ground air or chemigation Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Scab (*Cladosporium carpophilum*) Alternaria spot and fruit rot (*Alternaria alternata*) Anthracnose (*Colletotrichum prunicola C gloeosporioides*) Leaf rust (*Tranzschelia discolor*) Powdery mildew (*Sphaerotheca pannosa Podosphaera clandestina*) Shot hole (*Wilsonomyces carpophilus*)	6 0-15 5 (0 10-0 25)	

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Tobacco	Blue Mold *(Peronospora tabacina)* Frogeye Leaf Spot *(Cercospora nicotianae)* Target Spot *(Rhizoctonia solani)*	6 0-12 0 (0 1 0 2)	Abound applications should begin prior to disease development or at first indication that blue mold is in the area Do not apply Abound as a curative application If blue mold is present in the field initiate applications with Acrobat MZ® prior to an Abound application Apply on a 7 to 14-day interval with shorter intervals under conditions conducive to disease development For ground applications apply Abound in sufficient water volume for adequate coverage and canopy penetration For aerial application volumes should be 10 15 GPA Applications may be made by ground air or chemigation Do not apply Abound on greenhouse seedlings Do not tank mix with Thiodan Tank mixing Abound with insecticides formulated as emulsifiable concentrates (EC) or containing high amounts of solvents may cause some crop injury Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 NOTE Abound may enhance weather flecking on the leaves of certain tobacco types This does not affect yield and quality

Specific Use Restrictions

1) Do not apply more than 32 fl oz of product/A/season
2) Do not apply more than 0 52 lb a i /A/season of azoxystrobin-containing products
3) Abound may be applied the day of harvest (0 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Tomatoes Tomatillos Subgroup 8 10A Including all cultivars and/or hybrids of these See complete list of tomato crops below	Anthracnose *(Colletotrichum coccodes)* Black Mold *(Alternaria alternata)* Buckeye Rot *(Phytophthora* spp) Early Blight *(Alternaria solani)* Powdery Mildew *(Oidiopsis sicula)* Septoria Leaf Spot *(Septoria lycopersici)* Target Spot *(Corynespora cassiicola)*	5 0 6 2 (0 08- 0 10)	Abound applications should begin prior to disease development and continue throughout the season following the resistance management guidelines For late blight Abound should be applied at 5 to 7 day intervals For all other tomato diseases Abound should be applied on 7 to 21 day intervals Applications may be made by ground air or chemigation Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Under certain weather conditions (particularly high temperatures) Abound in combination with high rates of silicone based or oil containing (petroleum or crop) additives or adjuvants may cause injury Do not exceed 0 125% adjuvant (v/v) Consult a Syngenta representative for more information concerning additives or adjuvants A tank mixture with Dimethoate may cause crop injury On fresh market tomatoes do not use adjuvants or tank mix Abound with any emulsifiable concentrate (EC) product
	Late Blight *(Phytophthora infestans)*	6 2 (0 10)	

Complete List of Tomato Crops Bush Tomato Cocona Currant Tomato Garden Huckleberry Goji Berry Groundcherry Naranjilla Sunberry Tomatillo Tomato Tree Tomato cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 37 fl oz of product/A/season
2) Do not apply more than 0 6 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Tree Nuts Beechnut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert Hickory Macadamia Pecan Walnut Almonds Pistachios (see specific use instructions)	Alternaria Leaf and Fruit Spot (*Alternaria alternata*) Anthracnose (*Colletotrichum acutatum Glomerella cingulata*) Eastern Filbert Blight (*Anisogramma anomale)* Late Blight (*Alternaria alternata*) Scab (*Cladosporium carpophilum*) Septoria Leaf Spot (*Septoria pistaciarum*) Shot Hole (*Wilsonomyces carpophilus*)	6 0 12 0 (0 10 0 20)	Abound applications should begin prior to disease development and continue throughout the season following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates For all other diseases begin applications prior to disease development and continue at 7- to 21 day intervals throughout the season Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Blossom Blight (*Monilinia laxa M fructicola*)		For blossom blight begin applications at early bloom and continue through petal fall

Specific Use Restrictions

1) Do not apply more than 73 8 fl oz of product/A/season
2) Do not apply more than 1 2 lb a i /A/season of azoxystrobin containing products
3) Do not apply within 45 days of harvest (45 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Tropical Fruit Acerola Atemoya Avocado Biriba Canistel Cherimoya Custard Apple Dragon Fruit Feijoa Guava Ilama Jaboticaba Jackfruit Longan Loquat Lychee Mango Papaya Passionfruit Pawpaw Persimmon Pulasan Rambutan Sapodilla Sapote Black Sapote Mamey Sapote White Soursop Star Apple Starfruit Sugar Apple Spanish Lime Tamarind	Anthracnose (*Colletotrichum* spp) Cercospora Leaf Spot (*Cercospora* spp) Powdery Mildew (*Erysiphe* spp) Rust (*Puccinia* spp)	6 0-15 5 (0 10-0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 10 to 14 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Follow the resistance management guidelines in the Resistance Management Section Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Seedling Root Rot Basal Stem Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Vegetables, Leaves of Root and Tuber Group and Root Subgroup Beet Garden and Sugar[1 2] Burdock[1 2] Carrot[1 2] Cassava Bitter and Sweet[1] Celeriac (celery root)[1 2] Chervil Turnip Rooted[1 2] Chicory[1 2] Dasheen (taro)[1] Ginseng[2] Horseradish[2] Parsley Turnip Rooted[2] Parsnip[1 2] Radish[1 2] Radish Oriental (daikon)[1 2] Rutabaga[1 2] Salsify[2] Salsify Black[1 2] Salsify Spanish[2] Skirret[2] Sweet Potato[1] Tanier[1] Turnip[1 2] Yam True[1]	**Foliar Diseases** Alternaria Leaf Spot *(Alternaria spp A alternata)* Ascochyta Leaf Spot *(Ascochyta cynarae)* Rust *(Uromyces betae Puccinia helianthi)* White Rust *(Albugo tragopogonis)*	6 0 20 0 (0 10-0 33)	For powdery mildew make preventative applications on a 5 to 7-day schedule For all other diseases Abound applications should begin prior to disease development and continue throughout the season every 7 14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Cercospora Leaf Spot *(Cercospora betae C pastinaceae)* Powdery Mildew *(Erysiphe polygoni Leveillula taurica)*	9 0 15 5 (0 15 0 25)	
	Soilborne Diseases Circular Spot Southern Blight *(Sclerotium rolfsii)* Pythium Root Rot *(Pythium aphanidermatum)* Rhizoctonia Stem Canker Crown Rot *(Rhizoctonia solani)*	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section **For sugar beets** apply 3-7 inch banded applications in a minimum of 10 gallons per acre at the 2 to 8 leaf stage Do not apply as a dribble application over the seed row Tank mixtures of Abound with crop oil concentrates (COC) or methylated spray oil (MSO) may result in crop injury If cool soil conditions are expected after planting which could result in an extended period of plant emergence Abound should not be applied in furrow If using Abound at the time of planting do not use a starter fertilizer with it

[1] = Vegetable leaves of root and tuber subgroup
[2] = Root vegetable subgroup

Specific Use Restrictions

1) Do not apply more than 123 fl oz of product/A/season
2) Do not apply more than 2 0 lb a i /A/season of azoxystrobin containing products
3) Apply as an in furrow spray in a minimum of 10 gallons per acre
4) Abound may be applied the day of harvest (0 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Vegetables, Tuberous and Corm Subgroup Arracacha Arrowroot Artichoke Chinese and Jerusalem Canna Edible Cassava Edible Bitter and Sweet Chayote (root) Chufa Dasheen (Taro) Ginger Leren Potato Sweet Potato Tanier Turmeric Yam Bean Yam True	**Foliar Diseases** Alternaria Leaf Spot *(Alternaria spp A Alternata)* Ascochyta Leaf Spot *(Ascochyta cynarae)* Rust *(Uromyces betae Puccinia helianthi)* White Rust *(Albugo tragopogonis)*	6 0 20 0 (0 10 0 33)	For powdery mildew make preventative applications on a 5- to 7 day schedule For all other diseases Abound applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Cercospora Leaf Spot *(Cercospora betae C pastinaceae)* Powdery Mildew *(Erysiphe polygoni Leveillula taurica)*	9 0 15 5 (0 15 0 25)	
	Soilborne Diseases Circular Spot Southern Blight *(Sclerotium rolfsii)* Rhizoctonia Stem Canker Crown Rot *(Rhizoctonia solani)* Pythium Root Rot *(Pythium aphanidermatum)*	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 123 fl oz of product/A/season
2) Do not apply more than 2 0 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 14 days of harvest (14 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Watercress	Cercospora Leaf Spot (*Cercospora* spp)	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7 to 10-day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 93 2 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 7 days of harvest (7 day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Wheat **Triticale**	Leaf Rust (*Puccinia triticina* = *Puccinia recondita* f sp *tritici*) Septoria Leaf and Glume Blotch (*Septoria tritici* *Septoria nodorum*) Stem Rust (*Puccinia graminis*) Stripe Rust (*Puccinia striiformis*) Tan Spot (*Pyrenophora tritici repentis*)	4 0 12 0 (0 07-0 20)	Abound should be applied prior to disease development up to late head emergence (Feekes 10 5 or Zadok s 59) Applications may be made by ground air or chemigation A crop oil concentrate adjuvant may be added at 1 0% v/v to optimize efficacy Do not apply more than two sequential applications of Abound or other Group 11 fungicide before alternation with a fungicide that is not in Group 11 Do not make more than two applications of Abound or other Group 11 fungicide per season
	Powdery Mildew (*Erysiphe graminis*)	7 5 11 0 (0 125-0 175)	

Specific Use Restrictions

1) **For Wheat Only** Do not apply later than Feekes growth stage 10 5 (Zadok s growth stage 59)
2) Do not apply more than 0 40 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 14 days (14-day PHI) for forage and hay
4) Do not apply within 14 days of grazing (14 day PHI)
5) Do not apply within 45 days of harvest (45-day PHI) for grain and straw

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Wild Rice	Brown Spot (*Bipolaris oryzae or Bipolaris sorokiana)* Also known as *Helminthosporium oryzae* and *H sativum* Stem Rot *(Nakataea sigmoidea)*	12 5-15 5 (0 20 0 25)	Abound should be applied prior to disease development Applications may be made by ground air or chemigation For aerial application volumes should be 5 10 GPA An adjuvant may be added at specified rates For foliar diseases apply Abound prior to disease development Apply during tillering boot early heading or at initial sign of disease Under heavy disease pressure and conditions favorable for disease development a second application may be applied Do not apply more than two sequential applications of Abound or other Group 11 fungicide before alternation with a fungicide that is not in Group 11 Do not make more than two applications of Abound or other Group 11 fungicide per season

Specific Use Restrictions

1) Do not treat wild rice fields used for aquaculture of fish and crustaceans
2) Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat Applicators should use care in making applications near non target aquatic habitats
3) Do not apply more than 0 70 lb a i /A/season of azoxystrobin-containing products
4) Do not allow release of irrigation or flood water for at least 14 days after the last application
5) Do not apply within 28 days of harvest (28 day PHI)

Abound Rate Conversion Chart

Fl oz Product/A	Lb a i /A	Treated Acres/ Gal Product
4 0	0 07	32 0
5 0	0 08	25 6
5 5	0 09	23 2
6 0	0 10	21 3
6 2	0 10	21 3
7 0	0 11	18 3
8 5	0 14	15 4
9 0	0 15	14 2
9 2	0 15	14 2
10 0	0 16	13 0
11 0	0 18	11 6
12 0	0 20	10 4
12 3	0 20	10 4
13 0	0 21	9 8
14 0	0 23	9 1
15 4	0 25	8 3
15 5	0 25	8 3
18 3	0 30	6 9
18 5	0 30	6 9
20 0	0 33	6 4
20 3	0 33	6 4
24 5	0 40	5 2

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POST HARVEST APPLICATIONS

Crop	Target Diseases	Use Rate	Remarks
Bananas Plantains	Crown Rot/Crown Mold (*Colletotrichum musae* *Fusarium pallidoroseum* *Acremonium* spp *Ceratocystis paradoxa* *Glomerella cingulata* *Penicillium* spp)	200-400 ppm solution	Apply Abound as a single application of a 200-400 ppm solution to achieve good coverage The application may be made as a spray dip or may be painted onto the cut ends of the bananas Application of the 200 ppm rate is appropriate for short distance transportation (e g within the USA) When a longer time in transport is expected (export) use the 300-400 ppm rate If alum (1% w/v) is added to the spray solution stir the suspension frequently as sedimentation and flocculation may occur Addition of a non ionic surfactant (0 10% v/v) may improve the compatibility of this mixture **Amount of Abound to Mix 100 Gallons for Post Harvest Banana Applications** **Abound Use Rate** / **100 0 gal Spray Solution** 200 ppm / 11 fl oz 300 ppm / 15 fl oz 400 ppm / 21 fl oz

Specific Use Restrictions

1) Do not make more than one application to bananas as post-harvest treatment
2) Abound may be degraded by exposure to direct sunlight Do not store treated fruit in direct sunlight

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Crop	Target Diseases	Use Rate	Remarks
Citrus Fruit Crop Group 10-10 Calamondin Citron Citrus Hybrids Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma Mandarin Tangerine Uniq Fruit Hybrid Including all cultivars and/or hybrids of these See complete list of citrus fruit crops below	Penicillium Decays Green Mold Whisker Mold Suppression of Blue Mold (*Penicillium* spp) Diplodia Stem-End Rot (*Diplodia natalensis*) Phomopsis Stem-End Rot (*Phomopsis citrii*)	See Remarks	Use Abound as a dip drench flood or spray for the control of certain post-harvest diseases **For high volume (dilute) applications** Mix 32-64 fl oz of Abound in 25-100 gallons of an appropriate water wax/oil emulsion or aqueous dilution of a wax/oil emulsion for the crop being treated Use T-Jet flooders or similar application systems **For low volume (concentrate) applications** Mix 32-64 fl oz of Abound in 7-25 gallons of water wax/oil emulsion or aqueous dilution of wax/oil emulsion for the crop being treated Apply to 250 000 lb of fruit Use a controlled-droplet type of applicator or similar system **For dip applications** Mix 32-64 fl oz of Abound in 100 gallons of water wax/oil emulsion or aqueous dilution of wax/oil emulsion Dip for approximately 30 seconds and allow fruit to drain For maximum decay control treat citrus fruit once before storage and once after storage just prior to marketing

Complete List of Citrus Fruit Crops Australian Desert Lime (*Eremocitrus glauca*) Australian Finger Lime (*Microcitrus australasica*) Australian Round Lime (*Microcitrus australis*) Brown River Finger Lime (*Microcitrus papuana*) Calamondin (*Citrofortunella microcarpa*) Citron (*Citrus medica*) Citrus Hybrids *Citrus* spp *Eremocitrus* spp *Fortunella* spp *Microcitrus* spp and *Poncirus* spp Grapefruit (*Citrus paradise*) Japanese Summer Grapefruit (*Citrus natsudaidai*) Kumquat (*Fortunella* spp) Lemon (*Citrus limon*) Lime (*Citrus aurantiifolia*) Mediterranean Mandarin (*Citrus deliciosa*) Mount White Lime (*Microcitrus garrowayae*) New Guinea Wild Lime (*Microcitrus warburgiana*) Orange Sour (*Citrus aurantium*) Orange Sweet (*Citrus sinensis*) Pummelo (*Citrus maxima*) Russell River Lime (*Microcitrus inodora*) Satsuma Mandarin (*Citrus unshiu*) Sweet Lime (*Citrus limetta*) Tachibana Orange (*Citrus tachibana*) Tahiti Lime (*Citrus latifolia*) Tangelo (*Citrus* x tangelo) Tangerine (Mandarin) (*Citrus reticulate*) Tangor (*Citrus nobilis*) Trifoliate Orange (*Poncirus trifoliate*) Uniq Fruit (*Citrus aurantium* Tangelo group) cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not make more than two applications to citrus fruit as post-harvest treatments
2) Abound may be degraded by exposure to direct sunlight Do not store treated fruit in direct sunlight

Tuberous and Corm Vegetable Subgroup 1C Post harvest

Arracacha Arrowroot Artichoke Chinese Artichoke Jerusalem Canna Edible Cassava Bitter and Sweet Chayote (root) Chufa Dasheen Ginger Leren Potato Sweet Potato Tanier Turmeric Yam Bean Yam True

Use Abound as a post-harvest spray for the control of certain post-harvest rots caused by Silver Scurf (*Helminthosporium solani*) *Fusarium* species Late Blight (*Phytophthora infestans*) and Pink Rot (*Phytophthora erythroseptica*)

Application Method	Disease	Rate (fl oz)	Remarks
In-Line Aqueous Spray Application	Silver Scurf Fusarium Dry Rot Late Blight Pink Rot	0 6 fl oz /ton of tubers	• Ensure proper coverage of the tubers Tubers should be tumbling as they are treated • Mix the fungicide solution in an appropriate amount of water for the crop being treated • Use T-jet CDA or similar application system
Do not make more than one post-harvest application to the tubers			
Specific Use Restrictions • Do not use on seed potatoes or seed pieces • Ensure the Abound solution remains in suspension by using agitation			

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage and 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 the label

Pesticide Disposal
Pesticide wastes are acutely hazardous Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal Law If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance

Container Handling (less than or equal to 5 gallons)
Non-refillable container Do not reuse or refill this container 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

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equipment or a mix tank or store rinsate for later use and disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration

Container Handling (Bulk/Mini-Bulk)
Refillable container Refill this container with pesticide only Do not reuse the container for any other purpose Cleaning the container before final disposal is the responsibility of the person disposing of the container Cleaning before refilling is the responsibility of the person refilling To clean container before final disposal empty the remaining contents from this container into application equipment or mix tank Fill the container about 10 percent full with water Agitate vigorously or recirculate water with the pump for 2 minutes Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration or by other procedures allowed by state and local authorities

Non-refillable 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 Fill the container ¼ 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 Turn the container over onto its other 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 Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration or by other procedures allowed by state and local authorities

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER

This product is protected by U S Patent Numbers 5 602 076 and 5 633 256

For non-emergency (e g current product information) call
Syngenta Crop Protection at 1-800-334-9481

Manufactured for
Syngenta Crop Protection LLC
P O Box 18300
Greensboro North Carolina 27419-8300

[NON-DETACHABLE CONTAINER LABEL]

GROUP 11 FUNGICIDES

Abound® Flowable Fungicide

Broad spectrum fungicide for control of plant diseases

Active Ingredient	
Azoxystrobin methyl (*E*)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate*	22 9%
Other Ingredients	77 1%
Total	100 0%

Contains 2 08 lb of active ingredient per gallon
*IUPAC

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet

Reformulation is prohibited See individual container labels for repackaging limitations

AGRICULTURAL USE REQUIREMENTS

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

EPA Reg No 100-1098

EPA Est

Net Contents

FIRST AID	
If on skin or clothing	• 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
Have the product container or label with you when calling a poison control center or doctor or going for treatment	
HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill Leak Fire or Accident) Call **1-800-888-8372**	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if absorbed through skin Avoid contact with skin eyes or clothing Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or using the toilet Remove and wash contaminated clothing before reuse Wear long-sleeved shirt and long pants socks and shoes and chemical-resistant gloves made of any waterproof material such as polyvinyl chloride nitrile rubber or butyl rubber

Environmental Hazards

The active ingredient azoxystrobin in this product can be persistent for several months or longer Azoxystrobin has degradation products which have properties similar to chemicals which are known to leach through soil to ground water under certain conditions as a result of agricultural use Use of this chemical in areas where soils are permeable particularly where the water table is shallow may result in ground water contamination

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates Do not apply directly to water except as specified on this label For terrestrial uses do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark Drift and runoff may be hazardous to aquatic organisms in neighboring areas Do not contaminate water when disposing of equipment washwater or rinsate

Notify State and/or Federal authorities and Syngenta immediately if you observe any adverse environmental effects due to use of this product

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage and 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 the label

Pesticide Disposal
Pesticide wastes are acutely hazardous Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal Law If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance

Container Handling [less than or equal to 5 gallons]
Non refillable container Do not reuse or refill this container 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 and disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER

This product is protected by U S Patent Numbers 5 602 076 and 5 633 256

Manufactured for
Syngenta Crop Protection LLC
P O Box 18300
Greensboro North Carolina 27419-8300

ABO FLO 1098 MAS 0512 TOL PET C 0211 CLEAN – df – 7/31/12
000100 01098 20110221C ABO_FLO-TOLPET-C 0211-CLEAN PDF

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SUPPLEMENTAL LABELING

Syngenta Crop Protection, LLC
P O Box 18300
Greensboro, North Carolina 27419-8300
SCP

GROUP	11	FUNGICIDES

Abound® Flowable Fungicide

Broad spectrum fungicide for control of plant diseases

This supplemental label expires on 08/12/2015 and must not be used or distributed after this date

Active Ingredient	
Azoxystrobin methyl (*E*)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate*	22 9%
Other Ingredients	77 1%
Total	100 0%

Contains 2 08 lb of active ingredient per gallon
*IUPAC

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Reg 100-1098

All applicable directions, restrictions and precautions on the EPA-registered label are to be followed Before using Abound Flowable Fungicide as permitted according to this Supplemental Labeling, read and follow all applicable directions, restrictions, and precautions on the EPA-registered label on or attached to the pesticide product container This Supplemental Labeling contains revised use instructions and/or restrictions that may be different from those that appear on the container label This Supplemental Labeling must be in the possession of the user at the time of pesticide application It is a violation of Federal Law to use this product in a manner inconsistent with its labeling

ACCEPTED
AUG 1 0 2012
Under the Federal Insecticide Fungicide and Rodenticide Act as amended for the pesticide registered under EPA Reg No
100-1098

syngenta

DIRECTIONS FOR USE

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Berries Bushberry Subgroup 13 07B Aronia Berry Blueberry Highbush Blueberry Lowbush Buffalo Currant Chilean Guava Cranberry Highbush Currant Black Currant Red Elderberry European Barberry Gooseberry Honeysuckle Edible Huckleberry Jostaberry Juneberry (Saskatoon Berry) Lingonberry Native Currant Salal Sea Buckthorn Including all cultivars and/or hybrids of these	Alternaria Fruit Rot (*Alternaria* spp) Anthracnose Fruit Rot (*Colletotrichum gloeosporoides*) Botryosphaeria Canker (*Botryosphaeria* spp) Mummyberry (*Monilinia vaccinii-corymbosi*) Phomopsis Stem Canker (*Phomopsis vaccinii*) Powdery Mildew (*Sphaerotheca* spp) Septoria Blight (*Septoria* spp)	6 0-15 5 (0 10-0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7- to 14-day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 46 fl oz of product/A/season
2) Do not apply more than 0 75 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Berries, Caneberry Subgroup 13-07A Blackberry Bingleberry Boysenberry Dewberry Lowberry Marionberry Olallieberry Youngberry Loganberry Red and Black Raspberry Wild Raspberry Including all cultivars and/or hybrids of these	Anthracnose (*Spaceloma necator*) (*Elsinoe veneta*) Botryosphaeria Canker (*Botryosphaeria dothidea*) Colletotrichum Rot (*Colletotrichum gloeosporioides*) Leaf Spot (*Septoria rubi*) (*Sphaerulina rubi*) Powdery Mildew (*Sphaerotheca macularis*) Rosette or Double Blossom of Blackberries (*Cercosporella rubi*) Spur Blight (*Didymella applanata*)	6 0-15 5 (0 10-0 25)	Begin applications at onset of disease and continue as required until harvest Make applications on a 7- to 14-day schedule Use a minimum water volume of 10 gallons per acre by ground and a minimum of 3 gallons by air Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Blackberry Rust (*Phragmidium* spp)	10 15 5 (0 16 0 25)	

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Abound may be applied the day of harvest (0-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Berry, Low Growing Subgroup 13 07G (except Cranberry) See additional crops below	Anthracnose (*Colletotrichum fragariae*) Leather Rot (*Phytophthora cactorum*) Powdery Mildew (*Sphaerotheca macularis*) Suppression of Botrytis on the Foliage (*Botrytis cinerea*)	6 0 15 5 (0 10 0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7- to 10 day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates For leather rot control apply 2 applications on a 7 day schedule from late bloom through harvest **For dip applications at transplanting for commercial berry production** For suppression of root and crown rot caused by *Colletotrichum* spp mix 5-8 fl oz of Abound per 100 gallons of water Dip plants for 2-5 minutes Plant treated plants as quickly as possible It is recommended that transplants be washed to remove excess soil prior to dipping For continued anthracnose control follow with foliar applications beginning 2-3 weeks after transplant Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Seedling Root Rot Basal Stem Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Additional Low Growing Berries Bearberry Bilberry Cloudberry Muntries Partridgeberry including all cultivars and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 61 5 fl oz of product/A/season
2) Do not apply more than 1 0 lb a i /A/season of azoxystrobin containing products
3) Do not use in plant propagation nurseries
4) Abound may be applied the day of harvest (0-day PHI)

Crop	Target Diseases	Use Rate fl. oz. product/A (lb. a.i./A)	Remarks
Bulb Vegetables Crop Group 3-07 Garlic Leek Onion, Bulb Daylily, Bulb Fritillaria, Bulb Garlic, Bulb Garlic, Great-Headed, Bulb Garlic, Serpent, Bulb Lily, Bulb Onion, Bulb Onion, Chinese, Bulb Onion, Pearl Onion, Potato, Bulb Shallot, Bulb Onion, Green Chive, Fresh Leaves Chive, Chinese, Fresh Leaves Elegans Hosta Fritillaria, Leaves Kurrat Lady's Leek Leek Leek, Wild Onion, Beltsville Bunching Onion, Fresh Onion, Green Onion, Macrostem Onion, Tree, Tops Onion, Welsh, Tops Shallot, Fresh Leaves Including all cultivars and/or hybrids of these	**Foliar Diseases** Cladosporium Leaf Blotch (*Cladosporium allii*) Purple Blotch (*Alternaria porri*) Rust (*Puccinia allii*)	6.0-12.0 (0.10-0.20)	For downy mildew, make preventative applications on a 5- to 7-day schedule. For all other diseases, Abound applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. If applications are made by air, the higher rates should be used for adequate control. An adjuvant may be added at specified rates. Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. Mixtures of Abound with insecticides and silicone adjuvants must be tested for crop safety before application to the crop.
	Botrytis Leaf Blight (*Botrytis aclada*) Downy Mildew (*Peronospora destructor*)	9.0-15.5 (0.15-0.25)	
	Soilborne Diseases Rhizoctonia Damping-Off (*Rhizoctonia solani*)	0.40-0.80 fl. oz./1000 row feet	For soilborne/seedling disease control, see directions under the **SOILBORNE/SEEDLING DISEASE CONTROL** section. If the application is an in-furrow application, the spray should be made just prior to seed placement so that the majority of the chemical is under the seed. This will reduce the potential for phytotoxicity, especially if fertilizer is added to the application.

Specific Use Restrictions:

1) Do not apply more than 92.3 fl. oz. of product/A/season.
2) Do not apply more than 1.5 lb. a.i./A/season of azoxystrobin-containing products.
3) Abound may be applied the day of harvest (0-day PHI).

Crop	Target Diseases	Use Rate fl oz product/ A (lb a i /A)	Remarks
Citrus Fruit Crop Group 10-10 Calamondin Citron Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma Mandarin Tangerine Including all cultivars and/or hybrids of these See complete list of citrus fruit crops below	Albinism *(Alternaria alternata pv citri)* Alternaria Leaf and Fruit Spot *(Alternaria citri)* Cercospora Leaf Spot (*Cercospora* spp) Diplodia Stem-End Rot (*Diplodia natalensis*) Greasy Spot *(Mycosphaerella citri)* Melanose *(Diaporthe citri)* Penicillium Decays Green Mold Whisker Mold Suppression of Blue Mold (*Penicillium* spp) Phomopsis Stem-End Rot (*Phomopsis citri*) Post Bloom Fruit Drop (PFD) *(Colletotrichum acutatum)* Powdery Mildew *(Erysiphe* spp) Scab *(Elsinoe fawcettii)* Sweet Orange Scab *(Elsinoe australis)*	12 0-15 5 (0 20-0 25)	Abound applications should begin prior to disease development and continue throughout the season on 7 to 21-day intervals following the resistance management guidelines Under conditions that favor severe disease epidemics the higher application rates should be used Applications may be made by ground air or chemigation An adjuvant may be added at specified rates A horticultural spray oil should be used to improve control of greasy spot Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Do not make more than four (4) applications of Abound or other Group 11 fungicide per season
	Black Spot *(Guidnardia citricarpa)*	9 0-15 5 (0 15 0 25)	
Pummelo Citrus Hybrid (Uniq fruit only)	**Soilborne Diseases** Seedling Root Rot Basal Stem Rot (*Rhizoctonia solani*)	0 40 0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Complete List of Citrus Fruit Crops Australian Desert Lime (*Eremocitrus glauca*) Australian Finger Lime (*Microcitrus australasica*) Australian Round Lime (*Microcitrus australis*) Brown River Finger Lime (*Microcitrus papuana*) Calamondin (*Citrofortunella microcarpa*) Citron (*Citrus medica*) Citrus Hybrids *Citrus* spp *Eremocitrus* spp *Fortunella* spp *Microcitrus* spp and *Poncirus* spp Grapefruit (*Citrus paradise*) Japanese Summer Grapefruit (*Citrus natsudaidai*) Kumquat (*Fortunella* spp) Lemon (*Citrus limon*) Lime (*Citrus aurantiifolia*) Mediterranean Mandarin (*Citrus deliciosa*) Mount White Lime (*Microcitrus garrowayae*) New Guinea Wild Lime (*Microcitrus warburgiana*) Orange Sour (*Citrus aurantium*) Orange Sweet (*Citrus sinensis*) Pummelo (*Citrus maxima*) Russell River Lime (*Microcitrus inodora*) Satsuma Mandarin (*Citrus unshiu*) Sweet Lime (*Citrus limetta*) Tachibana Orange (*Citrus tachibana*) Tahiti Lime (*Citrus latifolia*) Tangelo (*Citrus* x tangelo) Tangerine (Mandarin) (*Citrus reticulate*) Tangor (*Citrus nobilis*) Trifoliate Orange (*Poncirus trifoliate*) Uniq Fruit (*Citrus aurantium* Tangelo group) cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Do not use Abound in citrus plant propagation nurseries
4) Abound may be applied the day of harvest (0-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Cranberry Subgroup 13-07H (except Strawberry) Bearberry Bilberry Blueberry Lowbush Cloudberry Lingonberry Muntries Partridgeberry Including all cultivars and/or hybrids of these	Cottonball *(Monilinia oxycocci)* Fruit Rots *(Physalospora vaccinii)* *(Glomerella cingulata)* *(Coleophoma empetri)* Lophodermium Twig Blight *(Lophodermium* spp)	6 0-15 5 (0 10-0 25)	Begin applications at 5-10% bloom for fruit rot cottonball and twig blight Continue applications on a 7- to 14-day schedule if conditions are favorable for disease development Applications may be made by ground chemigation or air Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Fairy Ring (suppression) (Psilocybe spp)	15 5 (0 25)	Make the first application at bud break Measure the ring diameter and add 10 feet to that diameter Apply Abound at a rate equivalent to 15 5 fl oz /A in 30 – 100 gallons of water to the affected area Irrigation (1 – 2 hours) following application is advisable to ensure penetration to the base of the plant If necessary make another application 2 – 4 weeks later For ground application ensure adequate water volume for thorough canopy penetration

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Do not treat cranberry fields used for aquaculture of fish and crustacea
4) Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat Applicators should use care in making applications near non-target aquatic habitats
5) Do not apply to flooded crop
6) Do not allow release of irrigation or flood water to non-target aquatic habitat for at least 14 days after the last application
7) Do not apply within 3 days of harvest (3-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Fruiting Vegetables Crop Group 8-10 **Pepper** Bell Pepper Non Bell Pepper Sweet Non-Bell Pepper **Eggplant** **Okra** **Pepino** Including all cultivars and/or hybrids of these See specific directions for use for Tomatoes See complete list of fruiting vegetables below	Anthracnose (*Colletotrichum* spp) Powdery Mildew (*Sphaerotheca* spp)	6 0-15 5 (0 10-0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 7 to 14-day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Rhizoctonia Seedling Rot (*Rhizoctonia solani)*	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Complete List of Fruiting Vegetables African Eggplant Bell Pepper Eggplant Martynia Nonbell Pepper Okra Pea Eggplant Pepino Roselle Scarlet Eggplant cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 61 5 fl oz of product/A/season
2) Do not apply more than 1 0 lb a i /A/season of azoxystrobin containing products
3) Abound may be applied the day of harvest (0-day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Grapes and Other Small Fruit Vine Climbing Subgroup 13-07F (except fuzzy kiwifruit) Amur River Grape Kiwifruit Hardy Maypop Muscadines Schisandra Berry Including all cultivars and/or hybrids of these	Black Rot (*Guignardia bidwellii*) Downy Mildew (*Plasmopara viticola*) Phomopsis Cane and Leaf Spot (*Phomopsis viticola*) Powdery Mildew (*Uncinula necator*) **Suppression Only** Botrytis Bunch Rot (*Botrytis cinerea)*	10 0-15 5 (0 16-0 25)	Abound applications should begin prior to disease development and continue throughout the season every 10-14 days following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Do not apply more than two sequential foliar applications of Abound or other Group 11 fungicides before alternating with a fungicide that is not in Group 11 **ATTENTION** Abound is extremely phytotoxic to certain apple varieties AVOID SPRAY DRIFT Extreme care must be used to prevent injury to apple trees (and apple fruit) DO NOT spray Abound where spray drift may reach apple trees DO NOT use spray equipment which has been previously used to apply Abound to spray apple trees Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin containing products
3) Do not apply within 14 days of harvest (14 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Herbs & Spices (except black pepper) Crop Group 19 Allspice Angelica Anise (seed) Anise Star Annatto Balm Basil Borage Burnet Camomile Caper (buds) Caraway Caraway Black Cardamon Cassia (buds) Catnip Celery Seed Chervil (dried) Chive Chive Chinese Cinnamon Clary Clove (buds) Coriander (cilantro or Chinese Parsley) (leaf) Coriander (seed) Costmary Culantro (leaf and seed) Cumin Curry (leaf) Dill (seed) Dillweed Fennel Common Fennel Florence (seed) Fenugreek Grains of Paradise Horehound Hyssop Juniper (berry) Lavender Lemongrass Lovage (leaf and seed) Mace Marigold Marjoram Mustard (seed) Nasturtium Nutmeg Parsley (dried) Pennyroyal Pepper White Poppy Seed Rosemary Rue Saffron Sage Savory Summer and Winter Sweet Bay Tansy Tarragon Thyme Vanilla Wintergreen Woodruff Wormwood	Corynespora Blight *(Corynespora cassiicola)* Dill Blight *(Cercosporidium punctum)* Phoma Blight *(Passalora puncta)*	6 0-15 5 (0 10-0 25)	Abound applications should begin at the onset of disease development and continue throughout the season on a 7 day schedule following the resistance management guidelines Applications may be made by ground only An adjuvant may be added at specified rates Use a minimum of 30 gallons of water per acre Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Wasabi	Fusarium Rhizome and Root Rot (*Pythium* spp)	6 2-15 4 (0 10 0 25)	Abound applications should begin at the onset of disease development and continue throughout the season on a 7-day schedule following the resistance management guidelines Applications may be made by ground or through the irrigation system (chemigation) An adjuvant may be added at specified rates Use a minimum of 30 gallons of water per acre Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Abound may be applied the day of harvest (0 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Oilseed Crops Crop Group 20 Crambe Flax Mustard Indian Mustard Field Mustard Black Rapeseed Rapeseed Indian Safflower Sunflower Including all cultivars and/or hybrids of these See complete list of oilseed crops below	Downy Mildew (*Plasmopora halstedii Plasmopora helianthi*) Alternaria Leaf Spot (*Alternaria* spp) Pasmo (*Septoria linicola garass*) Sunflower Rust (Puccinia helianthi)	6 0-15 5 (0 1-0 25)	Apply 6 0 fl oz of Abound at early bud followed by 14 0 fl oz at about 45 days before harvest A third application of 7 0 fl oz may be made 30 days before harvest Applications may be made by ground air or chemigation Use a minimum of 10 gallons of water per acre for ground applications Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11

Complete List of Oilseed Crops Borage Calendula Castor Oil Plant Chinese Tallowtree Cottonseed Crambe Cuphea Echium Euphorbia Evening Primrose Flax Seed Gold of Pleasure Hare s Ear Mustard Jojoba Lesquerella Lunaria Meadowfoam Milkweed Mustard Seed Niger Seed Oil Radish Poppy Seed Rapeseed Rose Hip Safflower Sesame Stokes Aster Sunflower Sweet Rocket Tallowwood Tea Oil Plant Vernonia cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 27 fl oz of product/A/season
2) Do not apply more than 0 45 lb a i /A/season of azoxystrobin-containing products
3) Do not apply within 30 days of harvest (30-day PHI)

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Crop	Target Diseases	Use Rate fl oz product/A (lb a i /A)	Remarks
Tomatoes Tomatillos Subgroup 8-10A Including all cultivars and/or hybrids of these See complete list of tomato crops below	Anthracnose (*Colletotrichum coccodes*) Black Mold (*Alternaria alternata*) Buckeye Rot (*Phytophthora* spp) Early Blight (*Alternaria solani*) Powdery Mildew (*Oidiopsis sicula*) Septoria Leaf Spot (*Septoria lycopersici*) Target Spot (*Corynespora cassiicola*)	5 0 6 2 (0 08- 0 10)	Abound applications should begin prior to disease development and continue throughout the season following the resistance management guidelines For late blight Abound should be applied at 5 to 7-day intervals For all other tomato diseases Abound should be applied on 7- to 21-day intervals Applications may be made by ground air or chemigation Do not apply more than one application of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11 Under certain weather conditions (particularly high temperatures) Abound in combination with high rates of silicone-based or oil containing (petroleum or crop) additives or adjuvants may cause injury Do not exceed 0 125% adjuvant (v/v) Consult a Syngenta representative for more information concerning additives or adjuvants A tank mixture with Dimethoate may cause crop injury On fresh market tomatoes do not use adjuvants or tank mix Abound with any emulsifiable concentrate (EC) product
	Late Blight (*Phytophthora infestans*)	6 2 (0 10)	

Complete List of Tomato Crops Bush Tomato Cocona Currant Tomato Garden Huckleberry Goji Berry Groundcherry Naranjilla Sunberry Tomatillo Tomato Tree Tomato cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not apply more than 37 fl oz of product/A/season
2) Do not apply more than 0 6 lb a i /A/season of azoxystrobin-containing products
3) Abound may be applied the day of harvest (0-day PHI)

Crop	Target Diseases	Use Rate fl oz product/ A (lb a i /A)	Remarks
Tropical Fruit Acerola Atemoya Avocado Biriba Canistel Cherimoya Custard Apple Dragon Fruit Feijoa Guava Ilama Jaboticaba Jackfruit Longan Loquat Lychee Mango Papaya Passionfruit Pawpaw Persimmon Pulasan Rambutan Sapodilla Sapote Black Sapote Mamey Sapote White Soursop Star Apple Starfruit Sugar Apple Spanish Lime Tamarind	Anthracnose (*Colletotrichum* spp) Cercospora Leaf Spot (*Cercospora* spp) Powdery Mildew (*Erysiphe* spp) Rust (*Puccinia* spp)	6 0-15 5 (0 10-0 25)	Abound applications should begin prior to disease development and continue throughout the season on a 10- to 14-day schedule following the resistance management guidelines Applications may be made by ground air or chemigation An adjuvant may be added at specified rates Follow the resistance management guidelines in the Resistance Management Section Do not apply more than two sequential applications of Abound or other Group 11 fungicides before alternation with a fungicide that is not in Group 11
	Soilborne Diseases Seedling Root Rot Basal Stem Rot (*Rhizoctonia solani*)	0 40-0 80 fl oz /1000 row feet	For soilborne/seedling disease control see directions and rates under the **SOILBORNE/SEEDLING DISEASE CONTROL** section

Specific Use Restrictions

1) Do not apply more than 92 3 fl oz of product/A/season
2) Do not apply more than 1 5 lb a i /A/season of azoxystrobin-containing products
3) Abound may be applied the day of harvest (0 day PHI)

POST HARVEST APPLICATIONS

Crop	Target Diseases	Use Rate fl oz Product/A (lb a i /A)	Remarks
Citrus Fruit Crop Group 10-10 Calamondin Citron Citrus Hybrids Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma Mandarin Tangerine Uniq Fruit Hybrid Including all cultivars and/or hybrids of these See complete list of citrus fruit crops below	Penicillium Decays Green Mold Whisker Mold Suppression of Blue Mold (*Penicillium* spp) Diplodia Stem-End Rot (*Diplodia natalensis*) Phomopsis Stem-End Rot (*Phomopsis citri*)	See Remarks	Use Abound as a dip drench flood or spray for the control of certain post harvest diseases **For high volume (dilute) applications** Mix 32-64 fl oz of Abound in 25-100 gallons of an appropriate water wax/oil emulsion or aqueous dilution of a wax/oil emulsion for the crop being treated Use T-Jet flooders or similar application systems **For low volume (concentrate) applications** Mix 32-64 fl oz of Abound in 7-25 gallons of water wax/oil emulsion or aqueous dilution of wax/oil emulsion for the crop being treated Apply to 250 000 lb of fruit Use a controlled-droplet type of applicator or similar system **For dip applications** Mix 32-64 fl oz of Abound in 100 gallons of water wax/oil emulsion or aqueous dilution of wax/oil emulsion Dip for approximately 30 seconds and allow fruit to drain For maximum decay control treat citrus fruit once before storage and once after storage just prior to marketing

Complete List of Citrus Fruit Crops Australian Desert Lime (*Eremocitrus glauca*) Australian Finger Lime (*Microcitrus australasica*) Australian Round Lime (*Microcitrus australis*) Brown River Finger Lime (*Microcitrus papuana*) Calamondin (*Citrofortunella microcarpa*) Citron (*Citrus medica*) Citrus Hybrids *Citrus* spp *Eremocitrus* spp *Fortunella* spp *Microcitrus* spp and *Poncirus* spp Grapefruit (*Citrus paradise*) Japanese Summer Grapefruit (*Citrus natsudaidai*) Kumquat (*Fortunella* spp) Lemon (*Citrus limon*) Lime (*Citrus aurantiifolia*) Mediterranean Mandarin (*Citrus deliciosa*) Mount White Lime (*Microcitrus garrowayae*) New Guinea Wild Lime (*Microcitrus warburgiana*) Orange Sour (*Citrus aurantium*) Orange Sweet (*Citrus sinensis*) Pummelo (*Citrus maxima*) Russell River Lime (*Microcitrus inodora*) Satsuma Mandarin (*Citrus unshiu*) Sweet Lime (*Citrus limetta*) Tachibana Orange (*Citrus tachibana*) Tahiti Lime (*Citrus latifolia*) Tangelo (*Citrus* x tangelo) Tangerine (Mandarin) (*Citrus reticulate*) Tangor (*Citrus nobilis*) Trifoliate Orange (*Poncirus trifoliate*) Uniq Fruit (*Citrus aurantium* Tangelo group) cultivars varieties and/or hybrids of these

Specific Use Restrictions

1) Do not make more than two applications to citrus fruit as post-harvest treatments
2) Abound may be degraded by exposure to direct sunlight Do not store treated fruit in direct sunlight

Tuberous and Corm Vegetable Subgroup 1C - Post harvest

Arracacha Arrowroot Artichoke Chinese Artichoke Jerusalem Canna Edible Cassava Bitter and Sweet Chayote (root) Chufa Dasheen Ginger Leren Potato Sweet Potato Tanier Turmeric Yam Bean Yam True

Use Abound as a post-harvest spray for the control of certain post-harvest rots caused by Silver Scurf (*Helminthosporium solani*) *Fusarium* species Late Blight (*Phytophthora infestans*) and Pink Rot (*Phytophthora erythroseptica*)

Application Method	Disease	Rate (fl oz)	Remarks
In-Line Aqueous Spray Application	Silver Scurf Fusarium Dry Rot Late Blight Pink Rot	0 6 fl oz /ton of tubers	• Ensure proper coverage of the tubers Tubers should be tumbling as they are treated • Mix the fungicide solution in an appropriate amount of water for the crop being treated • Use T-jet CDA or similar application system
Do not make more than one post-harvest application to the tubers			
Specific Use Restrictions • Do not use on seed potatoes or seed pieces • Ensure the Abound solution remains in suspension by using agitation			

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