
PRODUCT INFORMATION



Syngenta Crop Protection, Inc.
Greensboro, NC 27409
www.syngenta-us.com

SUPPLEMENTAL LABEL FOR ABOUND® Flowable

FUNGICIDE
EPA Reg. No. 100-1098

Broad spectrum fungicide for control of plant diseases on bananas, berries, citrus, cranberries, grapes, peanuts, strawberries, and tree nuts.

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 lbs. of active ingredient per gallon

*IUPAC

KEEP OUT OF REACH OF CHILDREN.

CAUTION

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

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

SCP 1098A-S4 0403

SOILBORNE/SEEDLING DISEASE CONTROL

ABOUND can provide control of many soilborne diseases if applied early in the growing 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 post-emergence 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.

For banded applications, 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 0.4-0.8 fl. oz. product (0.1-0.2 oz. a.i.)/1000 row feet (for banded applications on 22-inch rows the maximum application rate is 0.7 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.

For in-furrow applications, apply ABOUND as an in-furrow spray in 5-15 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.

IN-FURROW APPLICATION RATES

RATE PER 1000 ROW FEET		PRODUCT PER ACRE (fl. oz.)						
<i>fl. Oz. product</i>	<i>oz. a.i.</i>	<i>22" rows</i>	<i>30" rows</i>	<i>32" rows</i>	<i>34" rows</i>	<i>36" rows</i>	<i>38" rows</i>	<i>40" rows</i>
0.4	0.1	9.5	7.0	6.5	6.1	5.8	5.5	5.2
0.6	0.15	14.3	10.5	9.8	9.2	8.7	8.3	7.8

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

DIRECTIONS FOR APPLICATIONS

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Almonds	<p>Alternaria leaf and fruit spot (<i>Alternaria alternata</i>)</p> <p>Anthraxnose (<i>Colletotrichum acutatum</i>)</p> <p>Leaf Blight (<i>Seimatosporium lichenicola</i>)</p> <p>Leaf rust (<i>Tranzschelia discolor</i>)</p> <p>Scab (<i>Cladosporium carpophilum</i>)</p> <p>Shothole (<i>Wilsonomyces carpophilus</i>)</p>	11 - 15.4 (0.18 - 0.25)	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters and proper timing and placement of irrigation.</p> <p>Resistance Management: Do not apply more than two sequential applications of ABOUND or other strobilurins before alternation with a fungicide that has a different mode of action. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per acre per year.</p> <p>Application Directions: 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 (minimum 15 gpa) or chemigation. 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 recommended rates to improve coverage.</p>
	Brown Rot Blossom Blight (<i>Monilinia laxa</i> , <i>M. fructicola</i>)	12.3-15.4 (0.20-0.25)	<p>For anthracnose, scab and shothole begin applications prior to disease development and continue at 7-14 day intervals throughout the season.</p> <p>For blossom blight begin applications at early bloom and continue through petal fall. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per acre per year.</p>
<p>Specific Use Restrictions: Do not apply more than 2.88 quarts product/acre/season (1.5 lbs. a.i./A). Do not apply within 28 days of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<p>Bananas Plantains</p>	<p>Black Sigatoka (<i>Mycosphaerella fijiensis</i>) Yellow Sigatoka (<i>Mycosphaerella musicola</i>)</p>	<p>5.5 - 8.3 (0.09 - 0.135)</p>	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes canopy management through removal of suckers, proper plant spacing, selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters, and good surface water drainage.</p> <p>Resistance Management: Do not apply more than two (2) sequential applications of ABOUND or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than eight (8) applications of ABOUND or other strobilurin fungicides per acre per year.</p> <p>Application Directions: 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 recommended rates to improve coverage.</p>
	<p>Post Harvest Applications: Crown Rot/Crown Mold (<i>Colletotrichum musae</i>, <i>Fusarium pallidoseum</i>, <i>Acremonium</i> spp., <i>Ceratocystis paradoxa</i>, <i>Glomerella cingulata</i>),<i>Penicillium</i> spp.</p>	<p>200-400 ppm solution</p>	<p>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 (0.1% v/v) may improve the compatibility of this mixture.</p>
<p>Specific Use Restrictions: Do not apply more than 2.08 quarts product/acre/season (1.08 lbs. a.i./A). May be applied the day of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<p>Berries, Bushberry subgroup:</p> <p>Blueberry Currant Elderberry Gooseberry Huckleberry Including all cultivars and/or hybrids of these</p> <p>Lingonberry Juneberry Salal</p>	<p>Mummyberry (<i>Vaccinium</i> spp.) Alternaria Fruit Rot (<i>Alternaria</i> spp.) Phomopsis stem canker (<i>Phomopsis vaccinii</i>) Anthracnose fruit rot (<i>Colletotrichum gloeosporioides</i>)</p>	<p>6.2 - 15.4 (0.1 - 0.25)</p>	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.</p> <p>Resistance Management: Do not apply more than two sequential applications of ABOUND or other strobilurin before alternating with a fungicide that has a different mode of action. Do not make more than three (3) applications of ABOUND or other strobilurin fungicide per acre per crop year.</p> <p>Application Directions: ABOUND applications should begin prior to disease development and continue throughout the season on a 7-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.</p>
<p>Specific Use Restrictions: Do not apply more than 1.44 quarts (0.75 lb active ingredient) per acre per season. May be applied the day of harvest.</p>			
<p>Berries, Caneberry subgroup:</p> <p>blackberry, bingleberry, boysenberry, dewberry, lowberry, marionberry, olalieberry, youngberry, loganberry, red and black raspberry, Including all cultivars and/or hybrids of these</p>	<p>Botryosphaeria canker (<i>Botryosphaeria dothidea</i>) Anthracnose (<i>Spaceloma necator</i>) (<i>Elsinoe veneta</i>) Powdery mildew (<i>Sphaerotheca macularis</i>) Leaf spot (<i>Septoria rubi</i>) (<i>Sphaerulina rubi</i>) Colletotrichum rot (<i>Colletotrichum gloeosporioides</i>) Spur blight (<i>Didymella applanata</i>) Rosette or double blossom of blackberries (<i>Cercospora rubi</i>)</p>	<p>6.2-15.4 (0.1-0.25)</p>	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.</p> <p>Resistance Management: Do not apply more than two sequential applications of ABOUND or other strobilurins before alternating to a fungicide that has a different mode of action. Do not make more than 6 applications of ABOUND or other strobilurin fungicide per season</p> <p>Application Directions: Begin applications at onset of disease and continue as required until harvest. Make applications on a 7-14 day schedule. Use a minimum water volume of 10 gal per acre by ground and a minimum of 3 gal by air.</p>
<p>Specific Use Restrictions: Do not apply more than 2.88 quarts product (1.5 lb ai) per acre per season. May be applied the day of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<p>Citrus Fruit Calamondin Citron Citrus hybrids Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma mandarin Tangerine Including all cultivars and/or hybrids of these</p>	<p>Greasy spot (<i>Mycosphaerella citri</i>) Melanose (<i>Diaporthe citri</i>) Scab (<i>Eisinoe fawcettii</i>) Albinism (<i>Alternaria alternata pv citri</i>) Post bloom fruit drop (PFD) (<i>Colletotrichum acutatum</i>) Alternaria leaf and fruit spot (<i>Alternaria citri</i>)</p>	<p>12.4 - 15.4 (0.2 - 0.25)</p>	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters, and proper timing of irrigation.</p> <p>Resistance Management: Do not apply more than two sequential foliar applications of ABOUND or other strobilurins before alternation with a fungicide that has a different mode of action. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per acre per year.</p> <p>Application Directions: ABOUND applications should begin prior to disease development and continue throughout the season on 7-21 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 recommended rates to improve coverage.</p> <p>Do not use ABOUND in citrus plant propagation nurseries.</p>
<p>Specific use Restrictions: Do not apply more than 2.88 quarts product/acre/season (1.5 lbs. a.i./A). May be applied the day of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Cranberry	<p>Cottonball (<i>Monilia oxycocci</i>)</p> <p>Lophodermium twig blight (<i>Lophodermium spp.</i>)</p> <p>Fruit rots (<i>Phylospora vaccinii</i>) (<i>Glomerella cingulata</i>) (<i>Coleophoma empetri</i>)</p>	6.2-15.4 (0.1-0.25)	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper water management.</p> <p>Resistance Management: Do not apply more than two sequential applications of ABOUND or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per crop per acre per year.</p> <p>Application Directions: Begin applications at 5-10% bloom for fruit rot, cottonball, and twig blight. Continue applications on a 7-14 day schedule if conditions are favorable for disease development. Applications may be made by ground, chemigation or air.</p>
<p>Specific Use Restrictions: May be applied up to three days prior to harvest (3-day PHI). Do not apply more than 2.88 quarts product (1.5 lb ai) per acre per season. Do not treat cranberry fields used for aquaculture of fish and crustacea. 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. Do not apply to flooded crop. Do not allow release of irrigation or flood water to non-target aquatic habitat for at least 14 days after the last application.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<p>Grapes Including Muscadines</p>	<p>Downy Mildew (<i>Plasmopara viticola</i>)</p> <p>Phomopsis Cane and Leaf Spot (<i>Phomopsis viticola</i>)</p> <p>Powdery Mildew (<i>Uncinula necator</i>)</p> <p>Black Rot (<i>Guignardia bidwellii</i>)</p> <p>Suppression: Botrytis bunch rot (<i>Botrytis cinerea</i>)</p>	<p>11 - 15.4 (0.18 - 0.25)</p>	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes canopy management through pruning and thinning, proper selection of varieties with disease tolerance, proper timing and placement of irrigation and removal of plant debris in which inoculum overwinters.</p> <p>Resistance Management: Do not apply more than two sequential foliar applications of ABOUND before alternating with a fungicide that has a different mode of action. For wine and table grapes do not make more than four applications of ABOUND or other strobilurins per acre per year. For all other types of grapes do not make more than three (3) applications of ABOUND or other strobilurin fungicides per acre per year.</p> <p>Application Directions: 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 recommended rates.</p> <p>Do not apply more than 2.88 quarts product/acre/season (1.5 lbs. a.i./A). Do not apply within 14 days of harvest.</p> <p style="text-align: center;">ATTENTION</p> <p>ABOUND is extremely phytotoxic to certain apple varieties.</p> <p>AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).</p> <p>DO NOT spray ABOUND where spray drift may reach apple trees.</p> <p>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.</p> <p>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.</p> <p>AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.</p>

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Peanuts	<p>Soil-borne diseases – early season (in-furrow application) <i>Aspergillus</i> crown rot (<i>Aspergillus niger</i>) Pythium damping off (<i>Pythium</i> spp.) Stem Rot/White mold suppression (<i>Sclerotium rolfsii</i>)</p> <p>Soil-borne diseases – mid-late season Rhizoctonia peg and pod rot (<i>Rhizoctonia solani</i>) Stem Rot/White Mold (<i>Sclerotium rolfsii</i>)</p> <p>Suppression only Pythium Pod rot (<i>Pythium myriotylum</i>) Cylindrocladium black rot – (<i>Cylindrocladium crotonariae</i>)</p> <p>Foliar diseases Early leaf spot (<i>Cercospora arachidicola</i>) Late leaf spot (<i>Cercosporidium personatum</i>) Rust (<i>Puccinia arachidis</i>) Web blotch (<i>Phoma arachidicola</i>)</p>	<p>0.4-0.8 fl oz/ 1000 row feet</p> <p>12.3-24.6 (0.2-0.4)</p> <p>9 - 18.3 (0.15-0.3)</p>	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, proper timing and placement of irrigation, crop rotation and crop residue management.</p> <p>Resistance Management: For control of peanut diseases do not make more than two foliar applications of ABOUND or other strobilurin fungicides per acre per year.</p> <p>Application Directions: 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 GENERAL INFORMATION section.</p> <p>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 10-14 day period after each spray. Under heavy disease pressure and/or where there is high rainfall and/or irrigation, use 18.3- 24.6 oz/A. For light disease pressure and dry environmental conditions (non-irrigated, low rainfall), use 12.3-24.6 oz/A. For control of Pythium, a rate of 24.6 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 recommended rates to improve coverage.</p> <p>For foliar disease control only, a lower rate of ABOUND may be applied on a 10-14 day interval. Make no more than two sequential applications before alternating to a fungicide with a different mode of action.</p>
<p>Specific Use Restrictions: Do not apply more than 1.54 quarts of product/acre/season (0.8 lb a.i./acre/season). Do not apply within 14 days of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Pistachios	<p>Alternaria Late Blight (<i>Alternaria alternata</i>)</p> <p>Botryosphaeria panicle and shoot blight (<i>Botryosphaeria dothidea</i>)</p> <p>Septoria leaf spot (<i>Septoria pistaciarum</i>)</p>	12.3 - 15.4 (0.20 - 0.25)	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance and removal of plant debris in which inoculum overwinters.</p> <p>Resistance Management: Do not apply more than two sequential foliar applications of ABOUND or other strobilurins before alternation with a fungicide that has a different mode of action. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per acre per year.</p> <p>Application Directions: ABOUND applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.</p>
<p>Specific Use Restrictions: Do not apply more than 2.88 quarts product/acre/season (1.5 lbs. a.i./A). Do not apply within 7 days of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Strawberry	<p>Anthracnose (<i>Colletotrichum fragariae</i>)</p> <p>Powdery mildew (<i>Sphaerotheca macularis</i>)</p> <p>Suppression of Botrytis on the foliage (<i>Botrytis cinerea</i>)</p>	6.2 - 15.4 (0.1 - 0.25)	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.</p> <p>Resistance Management: Do not apply more than two sequential foliar applications of ABOUND before alternating with a fungicide that has a different mode of action. Do not make more than four (4) foliar applications of ABOUND per acre per crop year.</p> <p>Application Directions: ABOUND applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates. For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.</p>
	<p>Soilborne Diseases Seedling root rot, basal stem rot (<i>Rhizoctonia solani</i>)</p>	0.4-0.8 fl oz/1000 row feet	<p>For dip applications at transplanting for commercial berry production: For suppression of root and crown rot caused by <i>Colletotrichum</i> spp., mix 5-8 fl oz of ABOUND per 100 gal 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.</p>
<p>Specific Use Restrictions: Do not use in plant propagation nurseries. Do not apply more than 1.92 quarts (1.0 lb. active ingredient) per acre per season. May be applied the day of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<p>Tree Nuts</p> <p>Almonds(see specific use instructions) Beechnut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert Hickory Macadamia Pecan Walnut</p> <p>Pistachios (see specific use instructions)</p>	<p>Alternaria leaf and fruit spot (<i>Alternaria alternata</i>) Anthracnose (<i>Colletotrichum acutatum</i>, <i>Glomerella cingulata</i>) Late blight (<i>Alternaria alternata</i>) Scab (<i>Cladosporium carpophilum</i>) Septoria leaf spot (<i>Septoria pistaciarium</i>) Shothead (<i>Wilsonomyces carpophilus</i>) Eastern filbert blight (<i>Anisogramma anomale</i>)</p>	<p>11 - 12.3 (0.18 - 0.20)</p>	<p>Integrated Pest (Disease) Management: ABOUND should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters and proper timing and placement of irrigation.</p> <p>Resistance Management: Do not apply more than two sequential foliar applications of ABOUND or other strobilurins before alternation with a fungicide that has a different mode of action. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per acre per year.</p> <p>Application Directions: 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 recommended rates to improve coverage.</p> <p>For all other diseases begin applications prior to disease development and continue at 7-21 day intervals throughout the season.</p>
	<p>Blossom Blight (<i>Monilinia laxa</i>, <i>M. fructicola</i>)</p>	<p>12.3 (0.20)</p>	<p>For blossom blight begin applications at early bloom and continue through petal fall. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per acre per year.</p>
<p>Specific Use Restrictions: Do not apply more than 2.31 quarts product/acre/season (1.2 lbs. a.i./A). Do not apply within 45 days of harvest.</p>			

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