



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 14, 2017

Pat McCain
Senior Regulatory Product Manager
Regulatory Affairs, Seed Care
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, NC 27419-8300

Subject: Label Amendment – addition of resistance management section, revisions to PPE, update to seed bag tag, etc.
Product Name: Avicta Duo
EPA Registration Number: 100-1321
Application Date: 9/8/2015
Decision Number: 514457

Dear Mr. McCain:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Jacquelyn Herrick by phone at 703-347-0559, or via email at herrick.jacquelyn@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Elyssa Arnold". The signature is written in a cursive style.

Elyssa Arnold, Acting Product Manager 01
Invertebrate & Vertebrate Branch 3
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

(Master label)

RESTRICTED USE PESTICIDE
DUE TO ACUTE INHALATION TOXICITY
FOR SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS
UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED
BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

GROUP 4A 6 INSECTICIDES

Avicta® Duo

Nematicide/Insecticide

A Seed Treatment Product to Protect Corn or Cotton Seedlings from Early Season Nematode and Insect Damage

For use only in Syngenta-certified corn or cottonseed treatment facilities and only in seed treatment equipment with closed transfer and application systems. Not for use in hopper box, planter box, slurry box, or other farmer-applied applications.

Active Ingredients:

Abamectin (CAS No. 71751-41-2).....	12.4%
Thiamethoxam (CAS No. 153719-23-4).....	28.1%
Other Ingredients:	59.5%
<hr/>	
Total:	100.0%

*1 fluid ounce of Avicta Duo is a flowable concentrate containing 4.39 grams of abamectin and 9.96 grams of thiamethoxam.

KEEP OUT OF REACH OF CHILDREN.

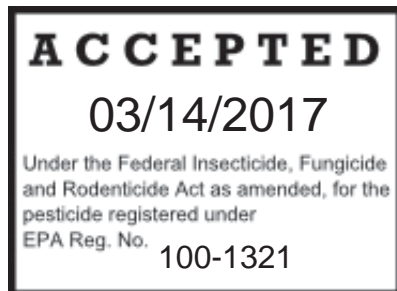
WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1321
EPA Est. XXXX

_____ gallons
Net Contents



FIRST AID	
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE 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

WARNING/AVISO

May be fatal if inhaled. May be fatal if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Do not breathe vapor. 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.

The following personal protective equipment and clothing are required when using this product:

Personal Protective Equipment (PPE)

Seed Treatment Workers

Workers involved with treating the seed (e.g., connecting and disconnecting hoses and transfer pumps, mixing, equipment calibration, etc.) must wear:

- Chemical-resistant gloves made of: barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or Viton® \geq 14 mils
- Protective eyewear
- Coveralls worn over long-sleeved shirt and long pants
- Chemical-resistant apron
- Shoes and socks
- NIOSH-approved particulate respirator with any N, R, P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved power air purifying respirator with HE filter with NIOSH approval number prefix TC-21C

Workers filling Seed Containers/Baggers and Bag Sewers must wear:

- Chemical-resistant gloves made of: barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or Viton \geq 14 mils
- Protective eyewear
- Coveralls worn over long-sleeved shirt and long pants
- Shoes and socks
- NIOSH-approved particulate respirator with any N, R, P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved power air purifying respirator with HE filter with NIOSH approval number prefix TC-21C

Workers involved with the clean-up and maintenance of seed treatment equipment must wear:

- Chemical-resistant gloves (minimum length 12 inches) made of: barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or Viton \geq 14 mils. Important: Tape down gloves to the sleeves of the coveralls.
- Protective eyewear
- Chemical-resistant, hooded coveralls worn over long-sleeved shirt and long pants
- Shoes and socks
- NIOSH-approved respirator with an organic vapor (OV) cartridge with a combination N, R, P filter with NIOSH approval number prefix TC-84A; **OR** NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC-14G **OR** a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC-23C

Multiple Task Workers must wear:

(Multiple task workers perform multiple tasks in one day such as mixing, product application, filling seed containers/ bagging, bag sewing, and clean-up)

- Chemical-resistant gloves made of: barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or Viton \geq 14 mils. Important: when performing seed treatment equipment clean-up procedures, gloves must be at least 12 inches long and taped down to the sleeves of the coveralls.
- Protective eyewear
- Long-sleeved shirt and long pants
- Chemical-resistant, hooded coveralls over long-sleeved shirt and long pants (required when performing seed treatment equipment clean-up procedures)
- Shoes and socks
- NIOSH-approved particulate respirator with any N, R, P filter with NIOSH approval number prefix TC-84A; **OR** a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C

Environmental Hazards

This pesticide is toxic to fish and wildlife and highly toxic to aquatic invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Treated seeds exposed on the soil surface may be hazardous to wildlife. Cover or collect seeds spilled during loading. Do not contaminate water when disposing of equipment washwater or rinsate.

Pollinator Precautions

Thiamethoxam is highly toxic to bees exposed to direct treatment, and effects may be possible as a result of exposure to translocated residues in blooming crops.

Groundwater Advisory

This product contains thiamethoxam which has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

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.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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

- Avicta Duo is only for use in Syngenta-certified seed treatment facilities: Use in hopper box, planter box, slurry box, or other farmer-applied applications is not permitted.
- Treatment of highly mechanically scarred or damaged seed or seed known to be of low vigor and poor quality may result in reduced germination and/or reduction of seed and seedling vigor. Conduct germination tests with a representative sample of the seed lot before committing the total seed lot to a selected seed treatment. Because seed quality and seed storage conditions are beyond the control of Syngenta, no claims are made to guarantee the germination of seed or propagating material for all crops.
- Seed treated with this product must be visually identifiable from untreated seed by the use of an approved colorant or dye to prevent accidental use of treated seed as food for humans or feed for animals. Refer to 21 CFR, Part 2.25. Any colorant or dye added to treated seed must be cleared for use in accordance with 40 CFR, Part 180.1001. Refer to the section on this label **REQUIRED SEED CONTAINER STATEMENTS** for language that must appear on the tag that is attached to the container of treated seed.

PRODUCT INFORMATION

Avicta Duo is a corn or cotton seed treatment nematicide/insecticide that contains the active ingredients abamectin and thiamethoxam. When Avicta Duo is applied to corn or cotton seed, seedlings are protected from early season nematode damage and damage from the insect pests specified in the Crop Use Directions.

To add early season disease protection, the seed treatment fungicides specified in the Crop Use Directions are approved for use on corn or cotton seed and may also be mixed with Avicta Duo.

REQUIRED SEED CONTAINER STATEMENTS [CORN]

The Federal Seed Act requires that the container of corn seed treated with Avicta Duo must be labeled with the following statements:

- This seed has been treated with abamectin nematicide and thiamethoxam insecticide.
- Do not use treated seed for feed, food, or oil purposes.

In addition, the U.S. Environmental Protection Agency requires the following statements on the container of corn seed treated with Avicta Duo.

- Store away from food and feedstuffs.
- Do not allow children, pets or livestock to have access to treated seeds.
- Wear long-sleeved shirt, long pants, and chemical-resistant gloves: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils when handling treated seed.
- Plant Avicta Duo treated corn seed based upon the local planting dates and soil temperatures that are recommended by your state agricultural extension agent.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- Treated seeds exposed on soil surface may be hazardous to wildlife; cover or collect treated seeds that are spilled during loading and in areas such as row ends.
- Dispose of all excess treated seed by burying seed away from bodies of water.
- Do not contaminate bodies of water when disposing of planting equipment washwater or rinsate.
- **Pollinator Precautions:** Thiamethoxam is highly toxic to bees exposed to direct treatment, and effects may be possible as a result of exposure to translocated residues in blooming crops.
- **Groundwater Advisory:** This product contains thiamethoxam which has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.
- In areas with a history of high nematode populations, a soil fumigant is recommended.

- Dispose of seed packaging in accordance with local requirements.
- Do not apply neonicotinoid insecticides to the soil or foliage of corn grown from seed treated with Avicta Duo.
- Excess treated seed may be used for ethanol production only if, (1) by-products are not used for livestock feed, and (2) no measurable pesticides remain in ethanol by-products that are used for agronomic practice.
- Do not use at a rate that will result in more than 0.165 lb of thiamethoxam per acre per calendar year (74.8 g ai/Acre) as a seed treatment application. One seed has been treated with x mg thiamethoxam/seed.
- Do not apply at a rate that will result in more than 0.033 lb of abamectin/acre/calendar year (15 g) as a corn seed treatment application. One seed has been treated with x mg abamectin/seed.
- In the event of crop failure or after harvest of corn grown from Avicta Duo treated corn seed, crops may be replanted according to the following schedule:

Immediate Plantback

Alfalfa

Cereal Grains: Barley, Buckwheat, Corn (field, pop, and sweet), Oat, Pearl Millet, Proso Millet, Rice (Dry-seeded), Rye, Sorghum, Teosinte, Triticale, Wheat, and Wild Rice

Canola

Cotton

Cucurbit Vegetables Crop Group 9

Fruiting Vegetables Crop Group 8

Head and Stem *Brassica* Crop Subgroup 5A

Leafy *Brassica* Greens Crop Subgroup 5B

Leafy Vegetables (Except *Brassica*) Crop Group 4

Legume Vegetables (Succulent or Dried, Including Soybean) Crop Group 6

Mint: Peppermint and Spearmint

Oilseed Crops: Borage, Crambe, Flax Seed, Mustard Seed, and Safflower

Onion, Dry Bulb

Peanut

Potato

Root Vegetables Crop Subgroup 1A

Strawberry

Sunflower

Tobacco

Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D

For any other crop, the minimum plant back interval is 120 days from the date the Avicta Duo treated corn seeds were planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement, may be planted sooner than the 120-day interval; however, the crop may not be grazed or harvested for food or feed.

In addition, include the following statements on containers of corn seed treated with Avicta Duo.

- In limited areas birds, such as Sand Hill Cranes, have been known to damage early, developing corn seedlings.

- Some seed-applied or hopper box-applied bird repellents have been shown to be effective in reducing this damage.
- In fields where seedling damage is expected, use of an approved bird repellent should be considered.

REQUIRED SEED CONTAINER STATEMENTS [COTTON]

The Federal Seed Act requires that the container of seed treated with Avicta Duo must be labeled with the following statements:

- This seed has been treated with abamectin nematicide and thiamethoxam insecticide.
- Do not use treated seed for feed, food, or oil purposes.

In addition, the U.S. Environmental Protection Agency requires the following statements on the container of cottonseed treated with Avicta Duo.

- Store away from food and feedstuffs.
- Do not allow children, pets or livestock to have access to treated seeds.
- Wear long-sleeved shirt, long pants, and chemical-resistant gloves when handling treated seed.
- Plant Avicta Duo-treated cottonseed based upon the local planting dates and soil temperatures that are recommended by your state agricultural extension agent.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- Treated seed exposed on soil surface may be hazardous to wildlife; cover or collect treated seed that are spilled during loading and in areas such as row ends.
- **Pollinator Precautions:** Thiamethoxam is highly toxic to bees exposed to direct treatment, and effects may be possible as a result of exposure to translocated residues in blooming crops.
- **Groundwater Advisory:** This product contains thiamethoxam which has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.
- Dispose of all excess treated seed by burying seed away from bodies of water.
- Do not contaminate bodies of water when disposing of planting equipment wash water.

- Dispose of seed packaging in accordance with local requirements.
- Do not use at a rate that will result in more than 0.075 lb thiamethoxam per acre (34.0 grams ai/A) per calendar year as a seed treatment application. This seed has been treated with thiamethoxam at ___x___ mg ai/seed.
- Do not use at a rate that will result in more than 0.03 lb of abamectin per acre (13.6 g) per calendar year as a seed treatment application. This seed has been treated with abamectin at ___x___ mg ai/seed.
- Allow a minimum of 45 days after planting Avicta Duo treated cottonseed before treating the cotton with a neonicotinoid insecticide.

In the event of crop failure or after harvest of cotton grown from Avicta Duo treated cottonseed, the following crops may be replanted immediately:

Immediate Plantback

Alfalfa

Cereal Grains: Barley, Buckwheat, Corn (field, pop, and sweet), Oat, Pearl Millet, Proso Millet, Rice (Dry-seeded), Rye, Sorghum, Teosinte, Triticale, Wheat, and Wild Rice

Canola

Cotton

Cucurbit Vegetables Crop Group 9

Fruiting Vegetables Crop Group 8

Head and Stem *Brassica* Crop Subgroup 5A

Leafy *Brassica* Greens Crop Subgroup 5B

Leafy Vegetables (Except *Brassica*) Crop Group 4

Legume Vegetables (Succulent or Dried, Including Soybean) Crop Group 6

Mint: Peppermint and Spearmint

Oilseed Crops: Borage, Crambe, Flax Seed, Mustard Seed, and Safflower

Onion, Dry Bulb

Peanut

Potato

Root Vegetables Crop Subgroup 1A

Strawberry

Sunflower

Tobacco

Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D

For any other crop, the minimum plant back interval is 120 days from the date the Avicta Duo treated cotton seeds were planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement, may be planted sooner than the 120-day interval; however, the crop may not be grazed or harvested for food or feed.

In addition, include the following statements on containers of cotton seed treated with Avicta Duo.

- In areas with a history of high nematode populations, use of a soil fumigant before planting Avicta Duo treated seed is recommended.

- In areas with a history of high thrips pressure or for cotton grown in North Carolina, South Carolina, and Virginia, apply a foliar insecticide, that is approved for thrips control, when cotton is between the 1st and 3rd leaf stage.

RESISTANCE MANAGEMENT

GROUP	4A	6	INSECTICIDES
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Avicta Duo contains thiamethoxam, a Group 4A insecticide, and abamectin, a Group 6 insecticide. Thiamethoxam is a systemic insecticide belonging to the neonicotinoid class of chemistry which includes nicotinic acetylcholine receptor (nAChR) agonists. Abamectin belongs to the avermectin class of chemistry which affects nerves and muscles.

Insect populations may contain individuals naturally resistant to Group 4A or 6 insecticides and if used repeatedly in the same fields, then resistant members may eventually dominate the population. Because resistance development cannot be predicted, use sound resistance management strategies established for the crop and use area.

Base seed treatment on an integrated pest management program that includes field sanitation, historical information related to pesticide use, careful selection of pest-tolerant crop varieties, scouting, and management practices which optimize populations of natural enemies of insect pests such as within-field refuge (untreated areas). Sound management programs also consider cultural and biological control practices.

In order to maintain susceptibility to these classes of chemistry:

- Use products at their full, specified doses.
- Use appropriate, well-maintained equipment. Use specified water volumes and apply at optimal temperatures in order to obtain optimal treatment.
- When rate ranges are given, use the higher rate within the listed rate range when insect pressure is expected to be high.
- Avoid using a single active ingredient or mode of action (same insecticide group) exclusively for season long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, use a treatment window approach. A treatment window is a period of time defined by the stage of crop development and the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, single or consecutive applications may be made using seed, in-furrow, or foliar treatments unless otherwise excluded by product labels. Do not exceed the maximum amount of this insecticide's mode of action allowed per growing season.
- Following a treatment window of this insecticide's mode of action, rotate to a treatment window of effective products with a different mode of action before making additional applications of this insecticide.

If resistance to this product develops in your area, this product or other products with a similar mode of action may not provide adequate control. If poor performance cannot

be attributed to improper application or weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for the crop and use area.

Syngenta encourages responsible product stewardship to ensure effective long term control of the insect pests on this label.

For additional information on Insect Resistance Management:

- Contact Syngenta representatives at 1-800-334-9481
- Contact your local Cooperative Extension Service specialist, pest control advisor, or certified crop advisor.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at:
<http://www.irac-online.org/>

ROTATIONAL CROP RESTRICTIONS

In the event of crop failure or after harvest of corn or cotton grown from Avicta Duo treated corn seed or cottonseed, the following crops may be replanted immediately:

Immediate Plantback

Alfalfa

Cereal Grains: Barley, Buckwheat, Corn (field, pop, and sweet), Oat, Pearl Millet, Proso Millet, Rice (Dry-seeded), Rye, Sorghum, Teosinte, Triticale, Wheat, and Wild Rice

Canola

Cotton

Cucurbit Vegetables Crop Group 9

Fruiting Vegetables Crop Group 8

Head and Stem *Brassica* Crop Subgroup 5A

Leafy *Brassica* Greens Crop Subgroup 5B

Leafy Vegetables (Except *Brassica* Vegetables) Crop Group 4

Legume Vegetables (Succulent or Dried, Including Soybean) Crop Group 6

Mint: Peppermint and Spearmint

Oilseed Crops: Borage, Crambe, Flax Seed, Mustard Seed, and Safflower

Onion, Dry Bulb

Peanut

Potato

Root Vegetables Crop Subgroup 1A

Strawberry

Sunflower

Tobacco

Tuberous and Corm Vegetables (Except Potato) Crop Subgroup 1D

For any other crop, the minimum plant back interval is 120 days from the date the Avicta Duo treated corn seeds or cotton seeds were planted. A cover crop other than the crops listed above that is planted for erosion control or soil improvement, may be planted sooner than the 120-day interval; however, the crop may not be grazed or harvested for food or feed.

MIXING AND APPLICATION INSTRUCTIONS

- Consult the Syngenta Seed Treatment representative or the manufacturer of the application equipment you plan to use regarding the suitability of this application and equipment calibration and operating instructions.
- Always treat seed in a well-ventilated area. Refer to the **Precautionary Statements** section of this label for personal protective equipment requirements and other safety precautions.
- Prepare no more mixture than is needed for the immediate operation.
- Avicta Duo must be thoroughly recirculated in its original container before using. (See **Mixing Instructions**.)
- Apply Avicta Duo as a water-based slurry utilizing standard slurry seed treatment equipment that will provide uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of nematode and insect control.
- Thoroughly mix the required amount of Avicta Duo and other seed treatment products desired with the amount of water required for the slurry treater and the dilution rate. (See **Avicta Duo in Tank Mixtures**.)
- Use an EPA-approved dye or colorant that imparts an unnatural color to the seed.
- Allow seed to dry before bagging /filling containers, and store treated seed away from feed and foodstuffs.

Avicta Duo in Tank Mixtures:

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Read and follow the applicable restrictions, limitations, and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

- **Compatibility:**

Before mixing Avicta Duo with other seed treatment products, determine if all of the products are compatible by conducting a compatibility test:

- 1) In a clear glass container thoroughly mix all of the intended seed treatment products with the appropriate amount of water, and allow the mixture to sit for one hour.
- 2) Remix the solution and observe for incompatibility.

- 3) If compatibility is acceptable, follow the mixing instructions in the **Mixing Instructions** section on this label.

Mixing Instructions:

A. Avicta Duo Alone

1. To dispense Avicta Duo into a mix tank, first attach a pump with fittings (example: Micro Matic) that match the fittings on the Avicta Duo container.
2. Recirculate product. Recirculation time should be calculated based upon the ability of the pump to completely recirculate the volume of the tank 5-10 times within a 30-minute time period.
3. After the initial recirculation, a short recirculation period of 5 minutes per day is recommended.
4. Attach the dispensing hose to a dry-lock type of fitting that is permanently attached to the mix tank lid.
5. Add $1/4$ - $1/2$ of the required amount of water to the mix tank.
6. With the agitator running, add the Avicta Duo to the tank.
7. Continue agitation while adding the remainder of the water.
8. Begin application of the solution after the Avicta Duo has completely dispersed into the mix water.
9. Maintain agitation until all of the mixture has been applied.

B. Avicta Duo - Tank Mixing Instructions

- 1) Add $1/2$ of the required water to the mix tank and turn on the agitation. Mechanical agitation is preferred.
- 2) If using wettable powders and/or products in water-soluble packaging, add water-soluble packages first to clean water and allow them to completely disperse before adding Avicta Duo or other products.
- 3) Allow each tank mix partner to completely disperse before adding the next product.
- 4) Add the remaining amount of water and agitate.
- 5) Maintain agitation until the entire slurry mixture has been used.

CROP USE DIRECTIONS

A. Avicta Duo on Corn Seed (Includes corn grown for seed, field corn, popcorn, and sweetcorn)

Avicta Duo is a seed treatment for corn grown for seed, field corn, popcorn, and sweetcorn. Avicta Duo, contains the active ingredients abamectin and thiamethoxam. Avicta Duo alone will provide corn seedlings early season protection from damage caused by nematodes and the insects specified in the section, "**Application**". Tank mixing Avicta Duo with additional thiamethoxam (Cruiser® 5FS) will provide protection from damage caused by additional insects. Tank mixing Avicta Duo with seed treatment fungicides will add early season disease protection. Refer to the following table for application directions.

Application

Pests / Diseases	Amount of Product to Apply	Instructions
<p>Nematodes and these Insects:</p> <p>Black cutworm Chinch bug Corn flea beetle Corn leaf aphid Grape colaspis Seedcorn beetle Seedcorn maggot Southern corn leaf beetle Southern green stinkbug Sugarcane beetle Thrips White grub Wireworm</p>	<p>Apply Avicta Duo to corn seed at a rate to achieve:</p> <p>0.2000 mg. abamectin/ 0.4538 mg. thiamethoxam per seed to 0.2500 mg. abamectin/ 0.5672 mg. thiamethoxam per seed</p> <p>NOTE:</p> <ul style="list-style-type: none"> • 1 fl. oz. of Avicta Duo contains 4.39 grams of abamectin and 9.96 grams of thiamethoxam. • The typical density of Avicta Duo is 10 lbs. per gallon. 	<p>To provide protection from early season nematode damage and damage from these insects apply the specified amount of Avicta Duo.</p>
<p>Additional Insects:</p> <p>Billbug Corn rootworm: (includes Mexican, northern, southern, and western)</p>	<p>In addition to the amount of Avicta Duo specified above, to protect corn seedlings from billbug and corn rootworm damage, apply Cruiser 5FS to the corn seed to achieve a total of 1.25 mg. of thiamethoxam per seed.</p> <p>1) Apply Avicta Duo at a rate to achieve:</p> <p>0.2000 mg. abamectin/ 0.4538 mg. thiamethoxam per seed to 0.2500 mg. abamectin/ 0.5672 mg. thiamethoxam per seed</p> <p>NOTE:</p> <ul style="list-style-type: none"> • 1 fl. oz. of Avicta Duo contains 4.39 grams of abamectin and 9.96 grams of thiamethoxam. • The typical density of Avicta Duo is 10 lbs. per gallon. <p>2) Then add the amount of Cruiser 5FS to achieve:</p> <p>a total of 1.25 mg. of thiamethoxam per seed.</p> <p>NOTE: One fl. oz. of Cruiser 5FS contains 17.7 grams of thiamethoxam.</p>	<p>Avicta Duo contains the active ingredients abamectin and thiamethoxam. Cruiser 5FS is a seed treatment insecticide that contains only the active ingredient, thiamethoxam. To add protection from billbug and corn rootworm damage to Avicta Duo treated corn seed, Cruiser 5FS must be mixed with Avicta Duo to increase the amount of thiamethoxam per seed.</p>

Disease Protection – Early Season	For the amount of fungicide to apply, refer to the EPA-approved label for the corn seed treatment fungicide.	To add early season and broad spectrum disease protection for corn seedlings, treating corn seed with a mixture of Avicta Duo plus seed treatment fungicides registered for use on corn seed, such as Apron® XL, Dynasty®, Maxim® Quattro, Vibrance® and Maxim® XL, is highly recommended.
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Do not use at a rate that will result in more than 0.165lb of thiamethoxam per acre per calendar year (74.8 g ai/Acre) as a seed treatment application.

Do not use at a rate that will result in more than 0.033 lb (15.0 g) of abamectin per acre per calendar year as a corn seed treatment application.

B. Avicta Duo on Cottonseed

Avicta Duo is a seed treatment for the seed of delinted cotton. Avicta Duo will provide cotton seedlings early season protection from damage caused by nematodes and the insects specified in the following table. Tank mixing Avicta Duo with Dynasty CST fungicide will add early season disease protection. Refer to the following table for application directions.

Application

Pests /Diseases	Amount of Product to Apply*	Instructions
Nematodes and these insects: Cotton aphid Cotton fleahopper ¹ Plant bugs ¹ Tobacco thrips Western flower thrips Wireworm <i>¹Avicta Duo only provides suppression of these pests. Suppression means either erratic control ranging from good to poor or consistent control at a level below that which is generally considered acceptable for commercial control.</i>	Apply Avicta Duo to cottonseed at a rate to achieve: 0.15 mg. abamectin / 0.34 mg. thiamethoxam per seed	To control early season nematodes and these insect pests apply the amount of Avicta Duo specified in the center column. NOTE: <ul style="list-style-type: none"> *1 fl. oz. of Avicta Duo contains 4.39 grams of abamectin and 9.96 grams of thiamethoxam. The typical density of Avicta Duo is 10 lbs. per gallon.

Disease Protection – Early Season	For the amount to apply, refer to the label of the cottonseed treatment fungicide, Dynasty™ CST.	To add early season disease control in cotton, cottonseed may be treated with a mixture of Avicta Duo plus Dynasty CST. Follow all directions for use and precautions on the Dynasty CST label.
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Do not use at a rate that will result in more than 0.075 lb thiamethoxam per acre (34.0 grams ai/A) per calendar year as a seed treatment application. This seed has been treated with thiamethoxam at ___x___ mg ai/seed.

Do not use at a rate that will result in more than 0.03 lb abamectin (13.6 g) abamectin per acre per calendar year as a cotton seed treatment application per calendar year.

CLEANING SEED TREATMENT EQUIPMENT

Do not use compressed air hoses to remove the dust from the seed treating equipment or the area around the equipment; use a central vacuum system or a HEPA filter portable vacuum cleaner.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a cool, dry place.

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 at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable container. Do not reuse or refill this container. Syngenta's authorized agent will pick up the empty container and handle its disposal. Contact Syngenta or its authorized agent to make arrangements for this service and store empty container in a secure area until pick up.

Triple rinse container 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 contact Syngenta or its authorized agent for disposal.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean-up immediately. Take special care to avoid contamination of equipment and facilities during clean-up procedures and disposal of wastes.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

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

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