OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

January 6th, 2026

Ricky Kyaw
Regulatory Product Manager
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419

Subject: Label Amendment - Registration Review Mitigation for Thiabendazole
Product Name: ARBOTECT 20-S FUNGICIDE
EPA Registration Number: 100-892
Case Number: 481281
Application Dates: December 14th, 2020

Dear Ricky Kyaw:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Thiabendazole Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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 Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. 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 12 months from the date of this letter. After 12 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.

If you have any questions about this letter, please contact Nicholas Barnett by phone at 513-569-7643, or via email at Barnett.nicholas@epa.gov.

Sincerely,

Maryam K. Muhammad-Perch, Team Lead
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

ACCEPTED
01/06/2026
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-892

[MASTER]

THIABENDAZOLE	GROUP 1	FUNGICIDE

Arbotect® 20-S

Fungicide

For Dutch Elm Disease, Sycamore Anthracnose, and Oak Anthracnose

Active Ingredient:	
Thiabendazole Hypophosphite (CAS No.28558-32-9) ..... (equivalent to 20% Thiabendazole)	26.6%
Other Ingredients:	73.4%
Total:	100.0%

Arbotect 20-S contains 1.8 pounds active ingredient per gallon.

Arbotect 20-S is formulated as a soluble liquid concentrate.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-892

EPA Est.

Product of India
Formulated in the USA

1 gallon
Net Contents

FIRST AID	
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • 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 Inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
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.
If in eyes	• 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.
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

CAUTION

Harmful if swallowed. Harmful if inhaled. Avoid breathing spray mist. May irritate skin. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- 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.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

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. Do not contaminate water when disposing of equipment washwater or rinsate.

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

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

FAILURE TO FOLLOW THE DIRECTIONS FOR USE 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) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

The restricted entry interval (REI) is 0 hours.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

The restricted entry interval (REI) is 0 hours.

PRODUCT INFORMATION

Arbotect 20-S is a systemic fungicide for use as a flare root injection for prevention of Dutch elm disease (*Ophiostoma ulmi* and *O. novo-ulmi*) on elms (*Ulmus* spp.), treatment of sycamore anthracnose (*Apiognomonia platani*) on sycamores and London plane trees (*Platanus* spp.), and oak anthracnose on oak trees. It is recommended that Arbotect 20-S be administered by trained arborists or others trained in injection techniques and in the identification of diseases.

RESISTANCE MANAGEMENT RECOMMENDATIONS

THIABENDAZOLE	GROUP 1	FUNGICIDE

For resistance management, please note that Arbotect 20-S contains Thiabendazole, a Group 1 fungicide. Thiabendazole belongs to the methyl-benzimidazole carbamate class of chemistry which disrupts ß-tubuline assembly in mitosis. Any fungal population may contain individuals naturally resistant to Arbotect 20-S and other Group 1 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same trees. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of Arbotect 20-S or other Group 1 fungicides within a growing season sequence with different groups that control the same pathogens.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and which considers host plant resistance, impact of environmental conditions on disease development,

disease thresholds, as well as cultural, biological and other chemical control practices.

- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local Syngenta representative, distributor, or extension agent for any additional pesticide resistance-management and/or IPM recommendations for specific trees and pathogens.
- For further information or to report suspected resistance contact Syngenta Crop Protection at 1-800-334-9481 or visit the Fungicide Resistance Action Committee (FRAC) on the web at www.frac.info. You can also contact your pesticide distributor or university extension specialist to report resistance.

Correct Location for Injector Placement

The flare root area is the transitional zone between the trunk and the root system. Uptake and distribution of Arbotect 20-S is more effective when injections are made into the flare roots. In addition, wounds created in the flare root area close more rapidly in comparison to wounds above the flare root area.

Tree Preparation

1. Heavy, thick, or loose outer bark may be carefully shaved to form a smoother injection point and to ensure the operator that the drill hole penetrates through the bark to the xylem.

2. If the flare roots are not clearly exposed, carefully remove enough soil from the base of the tree to uncover the top of the flare roots. Brush away loose soil.

3. Drill holes through the bark, into the sapwood using a clean, sharp, drill bit (high-helix or brad-point bits are recommended). For best results, change drill bits every 5-10 trees. Drill hole diameter should be adequate to allow insertion of injection tees and formation of an airtight contact between active xylem and the delivery point of the injection tees. Generally, the drill hole should not exceed ½ inch in diameter.

   Drill hole depth should be adequate to deliver the product into active xylem tissue. Generally, one inch depth is appropriate. Drill perpendicular to the surface of the root flare.

   Place injectors 3-6 inches apart around the base of the tree. Do not drill in the valleys between the flare roots or into cankered areas. Drill above these areas into the trunk, then continue into sound sapwood on the flares.

4. Insert into the drilled holes the injection ports (“tees”), which are connected to the plastic tubing. Insert the tees by hand and lightly tap with a small hammer to set in the hole. Do not push the tees past the current year’s xylem.

5. Do not dilute Arbotect 20-S with highly alkaline water as a precipitate may form. For hard water or water with high pH, use a deionizer tank or pH stabilizer (for example, muriatic acid) to keep Arbotect 20-S in solution.

Tree Measurement

Measure the diameter of the tree using a tree diameter-tape (D-tape) at 4½ feet above the ground. This is the diameter at breast height (DBH). If only a regular tape is available, measure the tree circumference and divide that number by 3.14 to obtain the diameter.

Injection

For best results, use a pressurized system that holds constant pressure at 15-20 psi. Pull out two tees, on opposite sides of the tee, and bleed the air out of the harness. When all air bubbles have been removed, insert the two tees, adjust the pressure to 15-20 psi, and check for leaks. Do not add the Arbotect 20-S until the system is running.

After the injection is complete, remove injection tees and leave drill holes unplugged. A water flush to cleanse the hole may assist with wound closure. Soil should be replaced around the root flares. It is not necessary to treat the drill holes with wound paint or other sealing compounds.

The injection system described is meant as an example; please refer to manufacturer’s instructions when using other types of tree injection systems.

APPLICATION PROCEDURES

Elm Trees – 1-Year Growing Season Treatment – Aids in the Control of Dutch Elm Disease

Preventive Treatment – For each 5 inches of trunk diameter, inject 1 fl oz of Arbotect 20-S in 40 fl oz (1¼ qt) of water to 2 fl oz of Arbotect 20-S in 80 fl oz (2½ qt) of water. Use the higher levels of Arbotect 20-S under high disease pressure situations.

Preventive applications should be made when leaves approach full size, usually in late May or June.

Therapeutic Treatment – For each 5 inches of trunk diameter, inject 2 fl oz of Arbotect 20-S in 80 fl oz (2½ qt) of water to 4 fl oz of Arbotect 20-S in 160 fl oz of water. Use the higher levels of Arbotect 20-S under high disease pressure situations.

Therapeutic applications should be made as soon as the current year infections are seen, usually in late June through August.

For optimum disease control, preventive treatment is recommended. When a tree shows more than 5% crown symptoms, treatment may not be effective. Treatment should be used in conjunction with an insect control and sanitation program (pruning of diseased limbs) in order to obtain best results. Trees that are 5 inches or less in diameter at chest height should not be treated.

Place injection sites as near to ground level as possible at 3-10 inch intervals around the trunk with a maximum hole diameter of ½ inch using a minimum of 3 or 4 equally spaced injection points per tree.

Elm Trees – 3-Year Growing Season Treatment – For Preventive Treatment of Dutch Elm Disease

Inject 12 fl oz of Arbotect 20-S for each 5 inches of trunk diameter. Dilute each 2.0 fl oz of Arbotect 20-S with 1 gallon of water. Inject into any exposed root flares, below ground, once every three years. Place injection sites into root flares at 3-10 inch intervals around the tree with a maximum hole diameter of ¼ inch. Where needed, the root flares will need to be exposed through soil excavation. Trees treated into trunk wood will not be as effectively protected. A typical tree will require 1.3 injection sites per diameter inch. For best results, injections should be made after the tree is fully leafed and the seeds have dropped, through late summer or early fall.

- Do not use this treatment if trees are less than 10 inches in diameter.
- If pressure injection is to be used, do not exceed 30 psi.
- Do not dilute Arbotect 20-S with highly alkaline water as a precipitate may form. Pre-test your water source by mixing a small amount of Arbotect 20-S with water. If the solution turns white, use different water.

Retreatment

Arbotect 20-S will provide three growing seasons of protection in most situations. However, protection in the third year after treatment will be slightly less than the first two years. In high disease pressure situations and for trees over 30 inches in diameter, retreatment may need to be considered during the third growing season after the tree was initially treated.

Therapeutic Treatment of Elms

Before treating a diseased elm with Arbotect 20-S, it is important to first isolate the disease from the tree using tracing techniques or limb removal. Injecting an elm tree that has the Dutch elm disease fungus actively growing will result in the failure of the treatment.

Sycamore Trees and London Plane Trees – 3-Year Growing Season Treatment – Aids in the Control of Sycamore Anthracnose

For each 5 inches of trunk diameter, inject 8 fl oz of Arbotect 20-S. (One part Arbotect 20-S should be diluted with between 20 and 40 parts of water). For large trees over 30 inches in diameter, inject up to 12 fl oz of Arbotect 20-S per 5 inches of trunk diameter.

For best results, injections should be made after the tree is fully leafed (post infection) through late summer or early fall. Treatments will aid in the control of sycamore anthracnose for up to three growing seasons. Trees over 50 inches diameter may need two consecutive treatments one year apart to obtain the desired level of protection.

Place injection sites at 3-10 inch intervals around the root flares. Trees treated into trunk wood will not be as effectively protected. Use a maximum hole diameter of ¼ inch using a minimum of 3 or 4 equally spaced injection points per tree. A typical tree will require 1.3 injection sites per diameter inch. It is important that injection sites be placed in root flares at or below ground level.

- Trees that are 5 inches or less in diameter at chest height should not be treated.
- If pressure injection is to be used, do not exceed 30 psi.
- Do not dilute Arbotect 20-S with highly alkaline water as a precipitate may form. Pre-test your water source by mixing a small amount of Arbotect 20-S with water. If the solution turns white, use different water.

Oak Trees – Aid in the Control of Oak Anthracnose

For each 5 inches of trunk diameter, inject 8 fl oz of Arbotect 20-S. (One part Arbotect 20-S should be diluted with between 20 and 40 parts of water.) For large trees over 30 inches diameter, inject up to 12 fl oz of Arbotect 20-S per 5 inches of trunk diameter. For best results, make treatments after the tree is fully leafed (post infection) through late summer or early fall.

Place injection sites at 3-10 inch intervals around the root flares. Trees treated into trunk wood will not be as effectively protected. Use a maximum hold diameter of ¼ inch using a minimum of 3 or 4 equally spaced injection points per tree. A typical tree will require 1.3 injection sites per diameter inch. It is important that injection sites be placed in root flares at or below ground level.

- Trees that are 5 inches or less in diameter at chest height should not be treated.
- If pressure injection is to be used, do not exceed 30 psi.
- Do not dilute Arbotect 20-S with highly alkaline water as a precipitate may form. Pre-test your water source by mixing a small amount of Arbotect 20-S with water. If the solution turns white, use different water.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed.

Pesticide Disposal

Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures under the Resource Conservation and Recovery Act.

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 or 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, or by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons - bulk]

Refillable container. Refill this container with pesticide only. Do not reuse this 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 approved by state and local authorities.

Container Handling [greater than 5 gallons – mini-bulk]

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. 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 approved by state and local authorities.

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 cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

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

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

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