

FLUDIOXONIL GROUP 12 FUNGICIDE

PULL HERE TO OPEN ►



# Cannonball<sup>®</sup>WG

syngenta<sup>®</sup>

## Fungicide

*Active Ingredient:*

Fludioxonil (CAS No. 131341-86-1) ..... 50.0%

*Other Ingredients:* ..... 50.0%

*Total:* ..... 100.0%

Cannonball WG is a 50% water dispersible granule.

**KEEP OUT OF REACH OF CHILDREN.**

## CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1454

EPA Est. 67545-AZ-1

SCP 1454A-L1D 0920

4117914

Net Contents:

**3 pounds**

**1 ounce (49 oz)**



<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p><b>NOTE TO PHYSICIAN</b> If ingested, induce emesis or lavage stomach. Treat symptomatically.</p>	
<p><b>HOT LINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b></p>	

## **PRECAUTIONARY STATEMENTS**

### **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Harmful if swallowed or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes moderate eye irritation. 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.

### **Personal Protective Equipment (PPE)**

**Handlers applying this product as a preplant dip to roots and crowns and workers packaging or preparing treated roots and crowns for shipment must wear:**

- Chemical-resistant apron made of any waterproof material
- Elbow-length chemical-resistant gloves
- Chemical-resistant boots made of any waterproof material

**All other applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves or chemical-resistant gloves
- Shoes plus socks
- Protective eyewear such as goggles or face shield

**In addition, mixers and loaders for aerial, groundboom, and chemigation applications must wear:**

- Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

**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.

**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. Aerial applicators must be in enclosed cockpits.

**User Safety Recommendations****Users should:**

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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.
- Remove and wash contaminated clothing before reuse.

**Environmental Hazards**

This pesticide is toxic to fish, aquatic invertebrates, oysters and shrimp. For terrestrial uses: Do not apply directly to water, 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 rinsates.

*continued...*

## **PRECAUTIONARY STATEMENTS (continued)**

### **Groundwater Advisory**

This chemical 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.

### **Surface Water Advisory**

This chemical may contaminate water through drift of spray in wind. This chemical has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this chemical. A level, well-maintained vegetative buffer strip between areas to which this chemical is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this chemical will be reduced by avoiding applications when conditions favor runoff (such as when soils are saturated and/or significant rainfall is forecast in the next 48 hours). Sound erosion control practices will reduce this chemical's contribution to surface water contamination.

### **Physical or Chemical Hazards**

Do not use or store near heat or open flame. Do not use with or store near any oxidizing agents.

## **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. 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 State or Tribal agency responsible for pesticide regulation.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR DISEASE CONTROL.**

### **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 12 hours.**

Exception: If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Shoes plus socks

**Do not formulate this product into other end-use products.**

## PRODUCT INFORMATION

Cannonball WG is a protective fungicide used to aid in the control of soil, crown, and foliar diseases. All applications must be made according to the use directions that follow.

## PRODUCT USE INSTRUCTIONS

**Nassau and Suffolk counties of New York:** Use limited to strawberries and onions.

**Not for use in the state of Hawaii.**

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

**Efficacy:** Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of Cannonball WG has been used. If resistant isolates to Group 12 fungicides are present, efficacy can be reduced. Under high disease pressure, it is recommended to use the highest rate and shortest interval.

**Rotational Crops:** Do not plant any crop which is not registered for use with fludioxonil for a period of 30 days, unless a shorter interval is specified on the following list.



<b>Rotational Crops</b>	<b>Planting Time From Last Cannonball WG Application</b>
Beans (dried and succulent except cowpeas)* Berries (bushberries 13-07B, caneberries 13-07A)* Vegetable, Brassica, Head and Stem (Crop Group 5-16)* Brassica, Leafy greens, except watercress (Subgroup 4-16B)* Carrot Cucurbit vegetables Crop Group 9* Ginseng Herbs (fresh and dried)* Kohlrabi Leafy Vegetables* Melons Onion, Bulb, Crop Subgroup 3-07A; Onion, Green, Crop Subgroup 3-07B Fruiting vegetables Crop Group 8-10 Root Vegetables Subgroup 1B, except Sugar Beet* Tuberous and Corm Vegetables Subgroup 1C Leaves of Root and Tuber Vegetables Crop Group 2* Strawberries Tomatoes Watercress Crops Not Intended for Food or Feed	0 days
All Other Crops Intended for Food or Feed	30 days

\*See the complete crop lists for these groups in CROP USE DIRECTIONS.

In annual crops where multiple crops can be grown per year (double/triple cropping), do not apply more than 0.9 lb ai fludioxonil/A/year to an individual plot of land, except for ginseng and onions at 1.0 lb ai fludioxonil/A/year.

**Crop Tolerance:** Plant tolerance has been found 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 a phytotoxic response will not occur as a result of application.

**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.

**Adjuvants:** When an adjuvant is to be used with this product, Syngenta recommends the use of a Chemical Producers and Distributors Association certified adjuvant unless otherwise restricted for a specific crop.

**IPM:** Cannonball WG should be integrated into an overall disease and pest management strategy (IPM) whenever the use of a fungicide is required. Cultural and sanitation practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area.

## RESISTANCE MANAGEMENT

FLUDIOXONIL	GROUP	12	FUNGICIDE
-------------	-------	----	-----------

Cannonball WG contains fludioxonil which is in the phenylpyrrole class of chemistry and has a unique mode of action, which prevents fungal respiration (Fungicide Action Group 12). Fungal isolates with acquired resistance to Group 12 may eventually dominate the fungal population if Group 12 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by fludioxonil or other Group 12 fungicides. A disease management program that includes alternation or tank mixes between Cannonball WG and other labeled fungicides that have a different mode of action may prevent pathogen populations from developing resistance. Sanitation and other cultural practices to minimize disease are also recommended to aid in control as well as to assist in preventing/delaying resistance development.

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

- Rotate the use of fludioxonil or other Group 12 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, 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 extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crop and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

## **SPRAY EQUIPMENT**

### **Nozzles**

- Equip sprayers with nozzles that provide accurate and uniform application.
- As appropriate, 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 suction side of 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 sufficient pressure at the nozzle tip to give the required flow rate and droplet size to provide acceptable coverage of the target crop.
  - (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**

- 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.
- Do not let the spray mixture stand overnight in the spray tank.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

**Cannonball WG Alone (no tank mix):**

- Add  $1/2$ - $2/3$  of the required amount of water to the spray or mixing tank.
- With the agitator running, add Cannonball WG to the tank.
- Continue agitation while adding the remainder of the carrier.
- Begin application of the spray solution after Cannonball WG has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

**Cannonball WG + Tank Mixtures:** Cannonball WG is usually compatible with all tank-mix partners. To determine the physical compatibility of Cannonball WG with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart 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.

**Mixing in the Spray Tank**

- Add  $1/2$ - $2/3$  of the required amount of water to the spray or mixing tank.
- Allow Cannonball WG to completely dissolve and disperse.
- 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 to the spray tank.
- Spray the mixture with the agitator running.
- Observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix product label.
- Label dosage rate must not be exceeded, and the most restrictive label precautions and limitations must be followed.
- This product must not be mixed with any product which prohibits such mixing.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and 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.

## **SPRAY DRIFT MANAGEMENT**

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- Do not apply when conditions favor drift beyond the target area.
- The interaction of many equipment- and weather-related factors determines the potential for spray drift.
- Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat.

### **Temperature and Humidity**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **Importance of Droplet Size**

- An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Wind**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. Note: Local terrain can influence wind patterns. Leave adequate buffer downwind of the application to avoid drift to non-target areas.

### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

### **Ground Applications**

#### **Controlling of Droplet Size – Ground Boom**

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Boom Height – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **Aerial Applications**

### **Controlling Droplet Size – Aircraft**

- **Adjust Nozzles** – Follow nozzle manufacturer’s recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **Release Height – Aircraft**

Higher release heights increase the potential for spray drift.

### **Non-Target Areas**

Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

## **APPLICATION PROCEDURES**

**OBSERVE THE FOLLOWING RESTRICTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES, AND COMMERCIAL FISH FARM PONDS.**

- Do not apply within 75 ft of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes, or estuaries.
- Shut off the sprayer when at row ends.
- Do not cultivate within 10 ft of aquatic areas as to allow a vegetative filter strip.
- Do not apply when weather conditions favor drift to aquatic areas. Do not apply when gusts or sustained winds exceed 10 mph.
- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.



- For perennial crops such as tree crops and grapes:
  - For all plantings within 150 ft of bodies of water as described above, spray crops from outside the planting away from the bodies of water.
  - Spray last three rows windward of aquatic areas using nozzles on one side only, with spray directed away from aquatic areas. Adjust or turn off top nozzles on the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row or passing tree gaps in the rows.

#### **Ground Application**

- Apply in a minimum of 10 gallons of water per acre, unless specified otherwise.

#### **Aerial Application**

##### **Aerial Spray Restrictions**

Observe the following restrictions when spraying in the vicinity of aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

- Use only on crops where aerial applications are indicated.
- Aerial applicators must be in enclosed cockpits.
- Avoid applications under conditions when uniform coverage cannot be obtained or when excessive drift may occur.
- Do not apply by air within 150 ft of lakes, reservoirs, rivers, permanent streams, marshes, or natural ponds, estuaries, and commercial fish ponds.
- Mount the spray boom on the aircraft so as to minimize the drift caused by wing tip vortices. Use the minimum practical boom length, and do not exceed 75% of wing span or rotor diameter.
- Release the spray at the lowest height consistent with pest control and flight safety.
- Avoid applications more than 10 ft above the crop canopy.
- Do not apply when weather conditions favor drift to aquatic areas. Do not apply when gusts or sustained winds exceed 10 mph.

- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.

### **Aerial Spray Precautions**

Observe the following precautions when spraying in the vicinity of aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

- Use the largest droplet size consistent with good pest control.
- Formation of very small droplets may be minimized by appropriate nozzle selection, by orientating nozzles away from air stream as much as possible, and by avoiding excessive spray boom pressure.
- Reduce risk of exposure to aquatic areas by avoiding applications when wind direction is toward the aquatic area.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood on increased spray drift to aquatic area. Avoid spraying during conditions of low humidity and/or high temperatures.
- For the crops to which aerial applications are allowed, refer to the specific crop directions for use.
- Apply in a minimum of 5 gallons of water per acre, unless specified otherwise.

### **Application Through Irrigation Systems (Chemigation)**

- Use only on crops for which chemigation is specified on this label.
- Apply this product only through drip, microjet, center pivot, solid set, hand move, and moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Apply in 0.125-0.25 inches/A of water. 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.

### **Operating Instructions**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
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.

### **Center Pivot Irrigation Equipment**

**Restrictions:** (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Cannonball WG through center pivot systems because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply  $1/8$ - $1/2$  inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying Cannonball WG 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.
- Determine the amount of Cannonball WG required to treat the area covered by the irrigation system.
- Add the required amount of Cannonball WG 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 Cannonball WG 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 Cannonball WG 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 Cannonball WG through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Cannonball WG required to treat the area covered by the irrigation system.

- Add the required amount of Cannonball WG 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 Cannonball WG solution has cleared the last sprinkler head.

### **Drip or Microjet Chemigation Systems**

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

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

### **Use Directions for Drip or Microjet Irrigation Applications**

**Drip or Microjet Irrigation:** Cannonball WG 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 for 24 hours following drip application.
- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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

## **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.

## CROP USE DIRECTIONS – SOIL APPLIED OR SOIL DIRECTED

Crop	Disease	Rate oz/Acre	Use Directions
<p><b>Bulb Vegetables Crop Group 3-07A and 3-07B (In-Furrow)</b></p> <p>Garlic Onion, Bulb Onion, Green Onions Grown for Seed</p> <p>And cultivars and/or hybrids of these.</p>	<p><b>Soil-Borne diseases</b> White rot (<i>Sclerotium cepivorum</i>)</p>	<p>7 (0.5 oz/ 1,000 ft row)</p>	<p>Apply at the time of planting as an in-furrow spray prior to seed placement.</p>
<p><b>Complete List of Bulb Vegetables:</b> Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves</p>			
<p><b>Specific Use Restrictions</b></p> <ol style="list-style-type: none"> <li>1) Application may be made by ground only.</li> <li>2) Do not apply more than 32 oz/A of Cannonball WG per acre per year.</li> <li>3) Do not apply more than 0.68 lb ai (21.7 oz) per acre per application.</li> <li>4) Do not apply more than 1.0 lb ai/A of fludioxonil-containing products per plot of land per year.</li> <li>5) Do not apply within 7 days of harvest (7-day PHI).</li> </ol>			



Crop	Disease	Rate oz/100 gal	Use Directions
<b>Bushberries Subgroup 13-07B</b> Blueberry: high & low bush Highbush cranberry Black currant Red currant Elderberry Native currant	Cythindrocladium root rot <i>(Cythindrocladium            parasiticum)</i> Rhizoctonia root rot <i>(Rhizoctonia spp.)</i>	1 - 2	<b>Propagation Use</b> Apply Cannonball WG at the rate of 1 - 2 oz per 100 gallons of water. Apply 1 - 2 pints of fungicide solution per square foot of propagation bed so as to thoroughly wet the root zone. Apply prior to or at the time of sticking cuttings and at 2- to 4-week intervals as needed. Cannonball WG may be applied to propagation beds through drip or sprinkler irrigation systems. <b>Field-Use</b> Apply Cannonball WG at the rate of 1 - 2 oz per 100 gallons of water and apply 1 - 2 pints around the base of each plant. Apply no more than 7 oz/A per application. Cannonball WG may be applied to production plantings through drip irrigation.

**Complete List of Bushberries:** Aronia berry, Black currant, Blueberry high and low bush, Buffalo currant, Chilean guava, Edible honeysuckle, Elderberry, European barberry, Gooseberry, Highbush cranberry, Huckleberry, Jostaberry, Juneberry (Saskatoon berry), Lingonberry, Native currant, Red currant, Salal, Sea buckthorn

**Specific Use Restrictions**

- 1) Do not apply more than 8 oz of Cannonball WG per acre per application in the greenhouse.
- 2) Do not apply more than 7 oz of Cannonball WG per acre per application in the field.
- 3) Do not apply more than 29 oz of Cannonball WG per acre per year.
- 4) Do not apply more than 0.9 lb ai/A of fludioxonil-containing products per plot of land per year.
- 5) May be applied on the day of harvest (0-day PHI).

Crop	Disease	Rate oz/Acre	Use Directions
Ginseng	Cylindrocarpon root rot ( <i>Cylindrocarpon destructans</i> ) White mold ( <i>Sclerotinia sclerotiorum</i> )	4 - 8	Apply Cannonball WG through drip irrigation or drenching to the root zone of the treated acre at a 14-21 day interval. Apply 4 – 8 oz Cannonball WG per acre. Apply in 100 to 200 or more gallons of water per acre to obtain thorough coverage and penetration to the soil and root zone. Repeat applications at 14-day intervals if conditions continue to be favorable for disease development.

**Specific Use Restrictions**

- 1) Do not apply more than 32 oz (1.0 lb ai/A) of Cannonball WG per year.
- 2) Do not apply within 14 days of harvest (14-day PHI).

Crop	Disease	Rate oz/Acre	Use Directions
<b>Melons</b> Cantaloupe Honeydew Watermelon And cultivars and/or hybrids of these.	Suppression of: Vine Decline ( <i>Monosporascus  cannonballus</i> )	4 - 8	Apply Cannonball WG prior to planting or transplanting in a 16-inch band shanked in with four fertilizer knives per bed or through the drip tape. Make additional applications starting at 21 days after planting or 7 days after transplanting via the drip tape. Continue via the drip tape every 14-21 days if conditions favor disease development. Make up to 3 applications at 8 oz/A or 6 applications at 4 oz/A.  Apply through drip irrigation to provide a root-zone of treated area. Due to limited movement of Cannonball WG in the soil, it is best to place the drip irrigation line directly below the plants and no more than 4 inches deep.
<b>Complete List of Melons:</b> Citron melon, muskmelon, true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon, and watermelon. Includes hybrids and/or varieties of <i>Cucumis melo</i> and <i>Citrullus lanatus</i> .			
<b>Specific Use Restrictions</b> 1) Do not apply more than 24 oz (0.75 lb ai/A) per year. 2) Do not apply within 14 days of harvest (14-day PHI).			

## CROP USE DIRECTIONS – FOR FOLIAR APPLIED

When a range of rates is provided, use the higher specified rates if weather conditions are conducive for higher disease pressure.

Crop	Disease	Rate oz/Acre	Use Directions
<b>Beans (Dried and Succulent except cowpeas)</b> Chickpea (garbanzo bean) Bean ( <i>Lupinus</i> spp.) (grain lupin, sweet lupin, white lupin, white sweet lupin) Bean ( <i>Phaseolus</i> spp.) (kidney, lima, mung, navy, pinto, snap, wax) Broad Bean (fava bean) Bean ( <i>Vigna</i> spp.) (asparagus, blackeyed pea)	White Mold ( <i>Sclerotinia sclerotiorum</i> )  Gray Mold ( <i>Botrytis cinerea</i> )	7	Begin applications prior to or at the onset of disease and repeat applications on a 7-day interval if conditions remain favorable for disease development.  For White Mold control, make the first application at 10-20% bloom. In some locations a single application at this timing will provide adequate disease control.  Resistance Management: After 2 applications of Cannonball WG, alternate with another fungicide with a different mode of action for 2 applications.

**Application Instructions:** Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. Make no more than two applications by air. Make additional applications by ground or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

*continued...*

**Specific Use Restrictions**

- 1) Do not make more than two applications by air.
- 2) Do not apply more than 28 oz/A of Cannonball WG per year.
- 3) Do not apply more than 0.9 lb ai/A of fludioxonil-containing products per plot of land per year.
- 4) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate oz/Acre	Use Directions
<p><b>Leafy Greens Subgroup 4A (except Brassica) and Leaf Petioles Subgroup 4B</b> Arugula Celery Lettuce, head and leaf Parsley Spinach</p> <p>And cultivars and/or hybrids of these.</p>	<p>Gray mold (<i>Botrytis cinerea</i>) Sclerotinia rot (<i>Sclerotinia</i> spp.) Basal rot (<i>Phoma exigua</i>)</p>	<p>7</p>	<p><b>For foliar diseases,</b> begin applications prior to or at the onset of disease and repeat applications on a 7-10 day interval if conditions remain favorable for disease development.</p> <p><b>For soil-borne disease:</b> Direct Seeded lettuce: Apply immediately after emergence or prior to disease development. Transplanted lettuce: Apply immediately after transplanting or prior to disease development.</p> <p>A second application should be made if either, 1) the soil is disturbed by cultivation or thinning or, 2) conditions continue to favor disease. Apply no closer than a 7-day interval.</p> <p>Resistance Management: After 2 applications of Cannonball WG, alternate with another fungicide with a different mode of action for 2 applications.</p>

**Complete List of Leafy Greens:** Amaranth; Arugula; Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum (Edible); Corn Salad; Cress; Dandelion; Dock; Endive (Escarole); Fennel, Florence; Lettuce (Head and Leaf); New Zealand spinach; Orach; Parsley; Purslane; Radicchio; Rhubarb; Spinach; Spinach, vine; Swiss Chard

**Application Instructions:** Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air. Make no more than two applications by air. Make additional applications by ground or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

**Specific Use Restrictions**

- 1) Do not make more than two applications by air.
- 2) Do not apply more than 28 oz/A of Cannonball WG per year.
- 3) Do not apply more than 0.9 lb ai/A of fludioxonil-containing products per plot of land per year.
- 4) May be applied on the day of harvest (0-day PHI).

## **STORAGE AND DISPOSAL**

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

### **Pesticide Storage**

Store in original containers in a cool, dry place. Do not store this product under wet conditions. Handle outer container carefully to avoid breakage of inner water-soluble packets. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, sweep and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

*continued...*

## **STORAGE AND DISPOSAL (continued)**



### **Pesticide Disposal**

Improper disposal of unused 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**

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  $\frac{1}{4}$  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 allowed by state and local authorities.

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

Cannonball®, the ALLIANCE FRAME   
the SYNGENTA Logo and the PURPOSE ICON   
are Trademarks of a Syngenta Group Company.  
©2020 Syngenta

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

**SCP 1454A-L1D 0920**  
**4117914**



FLUDIOXONIL GROUP 12 FUNGICIDE

# Cannonball<sup>®</sup>WG Fungicide

Active Ingredient:	
Fludioxonil (CAS No. 131341-86-1) . . . .	50.0%
Other Ingredients:	50.0%
Total:	100.0%

Cannonball WG is a 50% water dispersible granule.  
See additional precautionary statements and directions for use inside booklet.

### 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. 100-1454  
EPA Est. 67545-AZ-1

**Net Contents:**  
**3 pounds**  
**1 ounce (49 oz)**

## KEEP OUT OF REACH OF CHILDREN. CAUTION

### FIRST AID

**If swallowed:** 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 by a poison control center or doctor. Do not give anything by mouth to an unconscious person. **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.

**NOTE TO PHYSICIAN:** If ingested, induce emesis or lavage stomach. Treat symptomatically.

**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 or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes moderate eye irritation. 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.

### Container Handling

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 1/4 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 allowed by state and local authorities.

Refer to Environmental Hazards, Groundwater Advisory, Surface Water Advisory, Physical or Chemical Hazards, and complete Storage and Disposal sections in attached booklet.  
**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**

Cannonball<sup>®</sup> and the Syngenta logo are trademarks of a Syngenta Group Company.

©2020 Syngenta

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

SCP 1454A-L1D 0920  
4117914

**syngenta**<sup>®</sup>

