DIFENOCONAZOLE	GROUP	3	FUNGICIDE
FLUAZINAM	GROUP	29	FUNGICIDE

ORBUS™ ESQ

ACTIVE INGREDIENTS:	**(% by weight)**
Fluazinam*	21.8%
Difenoconazole**	9.5%
OTHER INGREDIENTS:	68.7%
TOTAL	100.0%

*3-chloro-*N*-[3-chloro-2,6-dinitro-4-trifluoromethyl)phenyl]-5-trifluoromethyl-2-pyridinamine (CA); 79622-59-6

** Difenoconazole; CAS No. 119446-68-3

Orbus ESQ is formulated as a soluble concentrate (SC) containing 2.11 lb ai/gal of Fluazinam and 0.92 lb ai/gal of difenoconazole.

EPA Reg. No.: 91234-246

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

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 below for additional Precautionary Statements.

FIRST AID	
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.
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 inhaled:	▪ Move person to fresh air. ▪ If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. ▪ Call a poison control center or doctor for treatment advice.
If swallowed:	▪ Immediately call a poison control center or doctor. ▪ **DO NOT** induce vomiting unless told to do so by the poison control center or doctor. ▪ **DO NOT** give **any** liquid to the person. ▪ **DO NOT** give anything by mouth to an unconscious person.
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-844-685-9173** for emergency medical treatment information.	

For Chemical Emergency:
Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER/PELIGRO

Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin. Harmful if inhaled. **DO NOT** get in eyes or on clothing. Avoid contact with skin. Avoid breathing vapor or spray mist. Wear goggles and face shield. 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)

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

- Protective eyewear (goggles and face shield)
- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves including barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils.

User Safety Requirements

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

ENGINEERING CONTROLS STATEMENT

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.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, mammals and 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. **DO NOT** contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate. **DO NOT** apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

DO NOT discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the EPA.

Surface Water Advisory

DO NOT cultivate within 25 feet of permanent water bodies (lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries) so as to allow growth of a vegetative filter strip. **DO NOT** apply aerially within 150 ft. of marine/estuarine areas.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product may contaminate water through drift or spray in wind. This product has a potential for runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential for contamination of water from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is expected to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

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.

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 the label about personal protective equipment and restricted-entry interval.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) 48 hours.

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, wear:

- Protective eyewear (goggles and face shield)
- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves including barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils.

In the State of New York, **DO NOT** apply within 100 feet of surface water. Aerial application is prohibited in the State of New York.

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.

Orbus ESQ may be applied with all types of spray equipment normally used for ground applications. Aerial application or application through sprinkler irrigation systems is not allowed unless specific directions are given for a crop. See the crop table, and application and calibration instructions below.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

USE RESTRICTIONS

- **DO NOT** apply this product with mechanically pressurized handgun equipment.
- **DO NOT** allow spray mixture to stand overnight or for prolonged periods.
- **DO NOT** apply this product through any other type of irrigation system. **DO NOT** apply **Orbus ESQ** through irrigation systems connected to a public water system.

MIXING AND SPRAYING

Orbus ESQ can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

Apply **Orbus ESQ** in sufficient water to obtain adequate coverage of the foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume will usually range from 20 to 100 gallons per acre for dilute sprays, and 5 to 10 gallons per acre for concentrate ground and aerial sprays. For aerial applications, apply **Orbus ESQ** in a minimum of 5 gallons of water per acre.

Dosage rates on this label indicate fluid ounces of **Orbus ESQ** per acre, unless otherwise stated. Under conditions that favor disease development, the high rate specified and the shortest application interval need to be used.

NOTE: Slowly invert container several times to assure uniform mixture.

The required amount of **Orbus ESQ** needs to be added slowly into the spray tank during filling. With concentrate sprays, premix the required amount of **Orbus ESQ** in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

Prepare only the amount of spray required for immediate use. Spraying equipment needs to be thoroughly cleaned immediately after the application.

ROTATIONAL CROPS

Please see the table below for the crop rotational restrictions.

Areas treated with Orbus ESQ may be replanted with crops on this label immediately after the last treatment. All other crops can be planted 30 days after the last application.

Rotational Crop	Planting Time from Last Orbus ESQ Application
Bean and Pea, Dried Shelled Subgroup 6C Berry, Bushberry Subgroup 13-07B Brassica (Cole) Head and Stem vegetables Group 5-16* Bulb vegetables, bulb onion Subgroup 3-07A Carrots Cucurbit vegetables Crop Group 9 Fruiting vegetables, Pepper/Eggplant, Subgroup 8-10B Ginseng Soybeans Tuberous and corm vegetable subgroup 1C	0 days
Artichoke, Globe Berry, Low Growing Subgroup 13-07G, except Cranberry Berry, Low Growing Subgroup 13-07G, except Cranberry Brassica (Cole) Leafy greens Subgroup 4-16B Bulb vegetables, green onion Subgroup 3-07B Cereals (wheat, barley, triticale, oats and rye) Chickpeas Citrus fruit Crop Group 10-10* Cotton Subgroup 20C Fruit, small, vine climbing Subgroup 13-07F, except fuzzy kiwifruit* Fruiting vegetables Crop Group 8-10, except Pepper/Eggplant, Subgroup 8-10B Guava* Kohlrabi* Papaya* Pome fruit Crop Group 11-10* Potatoes Rapeseed Subgroup 20A* Rice Root and Tuber Vegetables, Crop Group 1 (except Carrot, Sugar Beet, and Tuberous Corm Vegetable Subgroup 1C) Stone fruit Crop Group 12-12* Strawberry Sugar beets Tomatoes and tomatillos Tree nuts Crop Group 14-12* Watercress* Wild rice	30 days
All other crops intended for food and feed	60 days

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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 advised to test the combinations on a small portion of the crop to ensure a phytotoxic response will not occur as a result of application.

RESISTANCE MANAGEMENT

DIFENOCONAZOLE	**GROUP**	**3**	**FUNGICIDE**
FLUAZINAM	**GROUP**	**29**	**FUNGICIDE**

For resistance management, **Orbus ESQ** contains a Group 3 fungicide and a Group 29 fungicide. Any fungal population may contain individuals naturally resistant to **Orbus ESQ** and other Group 3 and 29 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Follow appropriate resistance management strategies.

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

- Rotate the use of **Orbus ESQ** or other Group 3 and 29 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides 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 directions for specific crops and pathogens.
- For information or to report suspected resistance contact Atticus, LLC at 984-465-4800. You can also contact your pesticide distributor or university extension specialist to report resistance.

MANDATORY SPRAY DRIFT

Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Applications

- Apply with the nozzle height directed by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Boom-less Ground Applications

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

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.

Controlling 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 specified 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.

Controlling Droplet Size - Aircraft

- Adjust Nozzles - Follow nozzle manufacturers specifications for setting up nozzles. To reduce fine droplets, nozzles need to be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

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.

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

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.

WIND
Drift potential 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.

BOOM-LESS GROUND APPLICATIONS
Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

HANDHELD TECHNOLOGY APPLICATIONS
Take precautions to minimize spray drift.

APPLICATION PROCEDURES

For best results, sufficient water volume must be used to provide thorough coverage. **Orbus ESQ** can be applied by either ground, chemigation, or aerial application. Use a minimum of 15 gal/A of water for ground applications. For aerial applications, use a minimum of 5 gal/A of water. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

Ground Application:
- Apply in a minimum of 15 gal of water per acre, unless specified otherwise.

Aerial Application:
- Use only on crops where aerial applications are indicated.
- Apply in a minimum of 5 gal of water per acre, unless specified otherwise.
- **DO NOT** apply under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.
- **DO NOT** apply directly to humans or animals.

Application Through Irrigation Systems (Chemigation)
- Use only on crops for which chemigation is specified on this label.
- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. **DO NOT** apply this product through any other type of irrigation system.
- 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 must 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 if the need arises.

Note: DO NOT inject **Orbus ESQ** at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part **Orbus ESQ**. **Orbus ESQ** is corrosive to many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used, but must be replaced once a year. **DO NOT** use Viton, Buna-N, Neoprene, or PVC seals.

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, including 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
Notes: (1) Use only with drive systems which provide uniform water distribution. (2) **DO NOT** use end guns when chemigating **Orbus ESQ** 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 directed by the equipment manufacturer. When applying **Orbus ESQ** 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 **Orbus ESQ** required to treat the area covered by the irrigation system.
- Add the required amount of **Orbus ESQ** 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 **Orbus ESQ** 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 **Orbus ESQ** solution has cleared the sprinkler head.

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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 **Orbus ESQ** through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of **Orbus ESQ** required to treat the area covered by the irrigation system.
- Add the required amount of **Orbus ESQ** 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 **Orbus ESQ** solution has cleared the last sprinkler head.

SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system needs to 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, including 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.

APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set or portable (wheel move, side roll, end tow, or hand move) irrigation system(s).

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

If you have questions about calibration, you must contact State Extension Service specialists, equipment manufacturers or other experts.

"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 per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, if the need arises.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low-pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

Always inject **Orbus ESQ** into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

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 irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

Orbus ESQ may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Thoroughly mix specified amount of this product for acreage to be covered into the same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until this product has been cleared from the last sprinkler head.

B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45-minute period. Mix desired amount of **Orbus ESQ** for acreage to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the quantity of water used during calibration. Agitation is advised. **Orbus ESQ** can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until this product has been cleared from last sprinkler head.

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Orbus ESQ Use Directions on Potato Group

Crop	Diseases	Rate Per Acre (lb ai/A)	Instructions
Potatoes Vegetable, Tuberous and corm subgroup 1C* For other crops in this subgroup, please see below	Late blight (*Phytophthora infestans*)	9 fl. oz. (0.15 Fluazinam + 0.06 Difenoconazole)	**Application instructions:** For late blight and white mold control, begin applications when the plants are 6 to 8 inches tall or when conditions favor disease development. Repeat applications at intervals of 7 to 10 days. When white mold pressure is low to moderate, use 9 fluid ounces. When conditions favor moderate to high white mold pressure, increase the rate to 12.5 fluid ounces.
	White mold (*Sclerotinia sclerotiorum*)	12.5 fl. oz. (0.21 Fluazinam + 0.09 Difenoconazole)	**Orbus ESQ** may be applied by aerial application (except in the State of New York) or through sprinkler system irrigation equipment on potatoes. See irrigation use directions preceding this section.
	Black dot (*Colletotrichum coccodes*) Brown spot (*Alternaria alternata*) Early blight (*Alternaria solani*) Powdery mildew (*Erysiphe cichoracearum*) Septoria leafspot (*Septoria* spp.)	12.5 – 14.5 fl. oz. (0.21 – 0.24 Fluazinam + 0.09 - 0.10 Difenoconazole)	Begin applications at first sign of disease or when conditions are conducive for disease development. Apply **Orbus ESQ** on a 7 to 14 day schedule. **Orbus ESQ** can be used in blocking program using a maximum of 2 consecutive applications before rotating to fungicides with another mode of action that are registered for these diseases. If disease pressure is high, use the shortest interval and highest rate.

Application: For best results, sufficient water volume must be used to provide thorough coverage. **Orbus ESQ** can be applied by either ground, chemigation, or aerial application (except in the State of New York). Use a minimum of 15 gal/A of water for ground applications. For aerial applications, use a minimum of 5 gal/A of water. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. **DO NOT** apply this product through any other type of irrigation system.

Includes all members of Root and Tuber Vegetables, Tuberous and Corm Crop Subgroup 1C: Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; yam, true; cultivars, varieties, and/or hybrids of these.

Restrictions

- **DO NOT** apply more than 14.5 fl. oz. of **Orbus ESQ** (0.24 lb ai Fluazinam + 0.10 lb ai Difenoconazole) per acre per single application.
- **DO NOT** apply more than 64 fl oz/A/year of **Orbus ESQ** (1.06 lb ai Fluazinam + 0.46 lb ai Difenoconazole).
- **DO NOT** apply more than 0.46 lb ai/A/year of difenoconazole-containing products.
- **DO NOT** apply more than 1.82 lb ai/A/year of fluazinam-containing products.
- **DO NOT** make more than 7 applications of **Orbus ESQ** per acre per year when using the lowest application rate.
- **DO NOT** make more than 4 applications per year at the maximum application rate.
- **DO NOT** apply within 14 days of harvest (14-day PHI).
- **DO NOT** apply **Orbus ESQ** through irrigation systems connected to a public water system.
- Minimum Application Interval: 7 days.
- In the State of New York, **DO NOT** apply within 100 feet of surface water.

***NOT FOR USE IN CALIFORNIA**

Manufactured for:
Atticus, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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:

For plastic containers ≤ 5 gallons: Nonrefillable 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 other procedures allowed by state and local authorities.

For plastic containers > 5 gallons: Nonrefillable 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. Recap 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 other procedures allowed by state and local authorities.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

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