

7969-289

2/24/2012

1 of 48



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL, SAFETY
AND POLLUTION PREVENTION

Charlotte Sanson
BASF Corporation
PO Box 13528
26 Davis Dr
Research Triangle Park, NC 27709

FEB 24 2012

Subject: Headline SC
EPA Reg. No. 7969-289
EPA Decision Number: 459783
Submission Date: 12/22/11

Dear Ms Sanson,

The labeling referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended to update application instructions and restrictions in the State of New York, is acceptable. Stamped copies of the master label and supplemental label "For aerial application in New York State" are enclosed for your records. Please submit one (1) final printed copy for the above mentioned label before releasing the product for shipment. If you have any questions, please contact Dominic Schuler at (703) 347-0260 or via email at schuler.dominic@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tony Kish". The signature is written in a cursive style with a large, sweeping "T" and "K".

Tony Kish
Product Manager 22
Fungicide Branch
Registration Division (7504P)



The Chemical Company

Group 11 Fungicide

ACCEPTED
FEB 24 2012
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 7969-289

Headline SC fungicide

For use in disease control and plant health in the following crops: alfalfa, barley, citrus fruits, corn (all types), cotton, dried shelled peas and beans, edible-podded legume vegetables, grass grown for seed, mint, oats, oilseed crops, peanut, pecan, rye, sorghum, soybean, succulent shelled peas and beans, sugar beet, tuberous and corm vegetables (includes potato), and wheat and triticale

Active Ingredient*

pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy)methyl]phenyl]methoxy-, methyl ester) 23.3%

Other Ingredients: 76.7%

Total: 100.0%

*Equivalent to 2.08 pounds of pyraclostrobin per gallon

EPA Reg. No. 7969-289

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

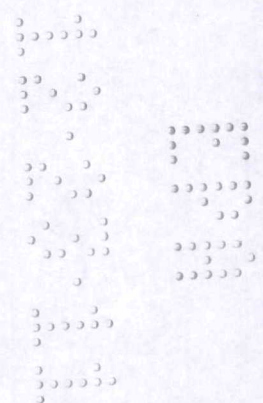
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

See inside for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709



FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by a poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).</p>	

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING. May be fatal if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category A** on an EPA chemical-resistance category selection chart.

- Applicators and other handlers must wear:**
- Long-sleeved shirt and long pants
 - Protective eyewear (goggles, face shield, or safety glasses)
 - Shoes plus socks
 - Chemical-resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene and/or barrier laminate)
 - Chemical-resistant headgear for overhead exposure
 - Chemical-resistant apron when cleaning equipment, mixing, and loading

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, 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:

- Wash hands 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.

Environmental Hazards

This product may contaminate water through drift of spray in wind. This product has a 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 product. A level, well-maintained vegetative buffer strip between areas to which this product 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 product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

DO NOT apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

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 agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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**.

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:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, made of any waterproof material (such as nitrile, butyl, neoprene, and/or barrier laminate)
- Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses)

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

Wastes resulting from using this product may be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance.

(continued)

STORAGE AND DISPOSAL (continued)

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) 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 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.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% 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.

(continued)

STORAGE AND DISPOSAL *(continued)*

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with **Headline® SC fungicide** or **Headline® fungicide**. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation: 1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Headline SC, a suspension concentrate (SC), contains the active ingredient pyraclostrobin, a member of the **strobilurin class of chemistry** derived from a natural antifungal substance. Preventive applications optimize disease control, resulting in improved plant health.

To maximize disease control, apply **Headline SC** in a regularly scheduled protective spray program and use in a rotation program with other fungicides.

Because of its high specific activity, **Headline SC** has good residual activity against target fungi.

Headline SC is not for use in greenhouse or transplant production.

Mode of Action

Pyraclostrobin, the active ingredient of **Headline SC**, belongs to the group of respiration inhibitors classified by the US EPA and Canada PMRA as quinone outside inhibitors (QoI) or target site of action **Group 11** fungicides.

Resistance Management

Headline SC is effective against pathogens resistant to fungicides with modes of action different from those of QoI fungicides (target site **Group 11**), such as dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides.

Fungal isolates resistant to **Group 11** fungicides, such as pyraclostrobin, azoxystrobin, fluoxastrobin, trifloxystrobin, and kresoxim-methyl, can eventually dominate the fungal population if **Group 11** fungicides are used predominantly and repeatedly in the same field in successive years as the primary method of control for the targeted pathogen species. This can result in reduction of disease control by **Headline SC** or other **Group 11** fungicides.

DO NOT exceed the maximum seasonal use rate or the total number of **Headline SC** applications per season and the maximum number of **Headline SC** applications stated in **Restrictions and Limitations - All Crops** and **Table 2. Headline® SC fungicide Crop-specific Requirements**. Follow the label instructions for use of **Headline SC** or other target site of action **Group 11** fungicides that have a similar site of action on the same pathogens.

When using a **Group 11** fungicide as a solo product, the number of applications should be no more than 1/3 of the total number of fungicide applications per season.

In programs applying or using tank mixes or pre-mixes of a **Group 11** fungicide with a fungicide of another group, the number of **Group 11** fungicide (QoI)-containing applications must not be more than 1/2 of the total number of fungicide applications per season. In programs applying or using **Group 11** fungicides with both solo products and mixtures, the number of **Group 11** fungicide (QoI)-containing applications must not be more than 1/2 of the total number of fungicide applications per season.

In fungicide alternation programs of **Group 11** (QoI)-containing fungicides with **non-Group 11** fungicides of different modes of action, the maximum number of sequential applications stated in **Restrictions and Limitations - All Crops** and **Table 2. Headline® SC fungicide Crop-specific Requirements** must be alternated with at least an equal number of applications of a **non-Group 11**-containing fungicide prior to using the **Group 11** (QoI)-containing fungicide again. If two sequential applications of a **Group 11** (QoI)-containing fungicide are made, follow this block of applications with 2 or more applications of a **non-Group 11**-containing fungicide prior to using the **Group 11** (QoI)-containing fungicide again.

Resistance Management Advisory

The following instructions may delay the development of fungicide resistance:

1. **Tank mixtures** - Use tank mixtures with effective fungicides from different target site of action groups that are registered/permitted for the same use and that are effective against the pathogens of concern.

Use at least the minimum labeled rates of each fungicide in the tank mix.

2. **IPM** - Integrate **Headline® SC fungicide** into an overall disease and pest management program. Follow cultural practices known to reduce disease development. Consult your local extension specialist, certified crop advisor and/or BASF representative for additional IPM strategies established for your area. **Headline SC** can be used in agricultural extension advisory (disease forecasting) programs, which recommend application timing based on environmental factors favorable for disease development.

3. **Monitoring** - Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development. If a **Group 11** target site fungicide, such as **Headline SC**, appears to be less effective against a pathogen that it previously controlled or suppressed, contact a BASF representative, local extension specialist, or certified crop advisor for further investigation.

Application Instructions

Apply **Headline SC** rates as instructed in **Table 2. Crop-specific Requirements**. Apply **Headline SC** with ground sprayer, aerial equipment, or through sprinkler irrigation equipment. Check equipment frequently for calibration.

For containers 5 gallons or less, shake well prior to use. For containers greater than 5 gallons, recirculate prior to use. Consult BASF Representatives for additional information regarding agitation and recirculation.

Under low-level disease conditions, use minimum application rates. For severe or threatening disease conditions, use maximum application rates and shortened spray intervals.

Cleaning Spray Equipment

Spraying equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used prior to **Headline SC**.

Ground Application

Apply **Headline SC** in sufficient water to ensure thorough coverage of foliage, blooms, and fruit for optimum disease control. Refer to **Additives and Tank Mixing Information** section for adjuvant or crop oil restrictions for ground applications in corn. See **Table 2. Headline® SC fungicide Crop-specific Requirements** for infurrow

instructions.

Aerial Application

For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Unless otherwise specified in this label or in supplemental labeling, use no less than 5 gallons of spray solution per acre. For aerial application to citrus orchards, use no less than 10 gallons of spray solution per acre. **DO NOT** apply when conditions favor drift from target area.

Aerial Application to Barley, Corn, Oats, Rye, Soybean, Wheat and Triticale

Aerial applications of **Headline SC** can be made to corn, soybeans, wheat and triticale in water volumes of 1 or more gallons of spray solution per acre (gpa). Aerial applications of **Headline SC** can be made to barley, oats and rye in water volumes of 2 or more gallons of spray solution per acre (gpa). The use of a crop oil or adjuvant can be used to improve spray coverage (see **Additives and Tank Mixing Information** section). Refer to the adjuvant product label for specific use directions and restrictions.

For optimum results in high disease pressure, use a minimum spray volume of 4 gpa. Select spray nozzles, pumping pressure, and sprayer height to provide medium-to-fine spray droplets that penetrate throughout the crop canopy. Spray calibration must be conducted to confirm spray droplet sizes. Continue to monitor spray application (including weather conditions) to ensure proper droplet size and canopy penetration.

Spray volumes of 5 gallons or more per acre. For applications with spray volumes of 5 gallons or more per acre, an adjuvant can be used to improve spray coverage (see **Additives and Tank Mixing Information**). Refer to the adjuvant product label for specific use directions and restrictions.

Select spray nozzles, pumping pressure, and sprayer height to provide medium-to-fine spray droplets that penetrate throughout the crop canopy. Calibrate spray to confirm spray droplet sizes. Monitor spray application including weather conditions to ensure proper droplet size and canopy penetration.

Spray Drift Management

DO NOT spray when conditions favor drift beyond area intended for application. Conditions that may contribute to drift include thermal inversion, wind speed and direction, spray nozzle/pressure combinations, spray droplet size, temperature/humidity, etc. Contact your state extension agent for spray drift prevention guidelines in your area. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers. Avoiding spray drift at the application site is the responsibility of the applicator.

Aerial Application Methods and Equipment

The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

DO NOT apply under circumstances where possible drift to unprotected persons, to food, forage, or other plantings that might be damaged, or crops thereof rendered unfit for sale, use or consumption can occur.

DO NOT release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements **DO NOT** apply to forestry applications, public health uses, or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the fixed wingspan or 90% of the rotor blade diameter.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator must be familiar with and take into account the aerial drift reduction advisory information.

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. Use the largest droplet size consistent with acceptable efficacy. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see **Wind; Temperature and Humidity; and Temperature Inversions**).

Controlling droplet size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - **DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight

back produce the largest droplets and the lowest drift.

Wind

DO NOT apply at wind speeds greater than 15 mph. Drift potential is lowest when wind speed does not exceed 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Avoid applications below 2 mph due to variable wind direction and high inversion potential. Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

Low humidity and high temperatures increase the evaporation of spray droplets and, therefore, the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures. When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.

Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. bodies of water or nontarget crops) is minimal and when wind is blowing away from the sensitive areas.

Directions For Use Through Sprinkler Irrigation Systems

Sprayer Preparation

Chemical tank and injector system must be thoroughly cleaned. Flush system with clean water.

Application Instructions

Apply **Headline® SC fungicide** at rates and timings specified in this label.

Sprinkler Irrigation Applications Use Precautions

- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side

(wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system.

- Add this product to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product/water mixture continuously, applying the labeled rate per acre for that crop. **DO NOT** exceed 1/2 inch (13,577 gallons) per acre. In stationary or non-continuous moving systems, inject the product/water mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Thorough coverage of foliage is required for good control. Maintain agitation during the entire application period.
- Contact state extension service specialists, equipment manufacturers, or other experts for calibration questions.
- 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 that 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 supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- **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 must 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.

Additives and Tank Mixing Information

Headline® SC fungicide can be tank mixed with most recommended fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives as specified in **Table 2. Headline® SC fungicide Crop-specific Requirements.**

Under some conditions, the use of additives or adjuvants may improve the performance of **Headline SC**. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or crop injury can result from mixing **Headline SC** with other products. Therefore, before using any tank mix (fungicides, insecticides, herbicides,

liquid fertilizers, biological control products, adjuvants and additives), test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application. Follow the most restrictive label.

Adjuvant or Crop Oil Restrictions in Corn (ground and aerial applications)

DO NOT use adjuvants or crop oil after the V8 stage and prior to the VT stage unless specifically recommended on BASF labeling. The VT stage is defined as when the last branch of the tassel is completely visible outside of the whorl. A compatibility agent, another fungicide, or an insecticide may be included in the tank mix if needed and labeled for use on corn. Refer to the other tank mix pesticide labels for specific use directions and restrictions. Follow the most restrictive label.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Consult a BASF representative or local agricultural authorities for more information concerning additives.

Mixing Order

1. **Water** - Agitate a thoroughly clean sprayer tank 3/4 full of clean water.
2. **Agitation** - Maintain constant agitation throughout mixing and application.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-dispersible products** (such as **Headline® SC fungicide**, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) - **For containers 5 gallons or less, shake well prior to use. For containers greater than 5 gallons, recirculate prior to use.** Consult BASF Representatives for additional information regarding agitation and recirculation.
6. **Water-soluble products**
7. **Emulsifiable concentrates** (such as oil concentrates when applicable)
8. **Water-soluble additives** (such as ammonium sulfate [AMS] or urea ammonium nitrate [UAN] when applicable)
9. **Remaining quantity of water**

Make sure each component is thoroughly mixed and suspended before adding tank mix partners. Maintain constant agitation during application. See **Table 2. Headline® SC fungicide Crop-specific Requirements** for more details.

Restrictions and Limitations - All Crops

- **Maximum seasonal use rate - DO NOT** apply more than the maximum rate per acre per season as listed in **Table 1. Headline® SC fungicide Restrictions and**

Limitations Overview and Table 2. Headline® SC fungicide Crop-specific Requirements.

- **Maximum rate per application - DO NOT** apply more than the maximum rate per acre per application as listed in **Table 1. Headline® SC fungicide Restrictions and Limitations Overview and Table 2. Headline® SC fungicide Crop-specific Requirements.**
- **DO NOT** make more than the total number of **Headline SC** applications per season, as listed in **Table 1. Headline® SC fungicide Restrictions and Limitations Overview** and not exceeding the maximum seasonal use rate. Also see **Table 2. Headline® SC fungicide Crop-specific Requirements** section.
- **Preharvest Interval (PHI):** See **Table 1. Headline® SC fungicide Restrictions and Limitations Overview and Table 2. Headline® SC fungicide Crop-specific Requirements.**
- **DO NOT** use **Headline SC** in greenhouse or transplant production.
- **For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).**

Crop Rotation Restriction

Crops listed on the **Headline SC, Cabrio® EG fungicide** and **Pristine® fungicide** labels may be planted immediately following the last application. For all other crops, **DO NOT plant sooner than 14 days** after the last application.

Ground Application Directed or Banded Sprays

The application rates shown in the following tables pertain to both aerial and ground (broadcast) methods of application. **Headline SC** may also be applied as a directed or banded spray over the rows or plant beds with alleys or row middles left unsprayed. For such uses, reduce the **Headline SC** rate in proportion to the area actually sprayed. This adjustment is necessary to prevent applying the product at use rates higher than permitted on this label.

Use the following formula to determine the broadcast equivalent rate for directed or banded sprays:

$$\text{sprayed bed width} + \text{unsprayed row middles} = \text{total row width}$$

$$\frac{\text{sprayed bed width in inches}}{\text{total row width in inches}} \times \frac{\text{broadcast rate}}{\text{treated acre}} = \frac{\text{band rate}}{\text{field acre}}$$

EXAMPLE: Directed spray application to 45-inch plant beds separated by 15-inch unsprayed row-middles at a 12 fl ozs/A label broadcast rate:

$$45 \text{ inches sprayed bed width} + 15 \text{ inches unsprayed row middles} = 60 \text{ inches total row width}$$

$$\frac{45 \text{ inches sprayed bed width}}{60 \text{ inches total row width}} \times \frac{12 \text{ fl ozs}}{\text{Headline SC treated acre}} = \frac{9 \text{ fl ozs}}{\text{Headline SC field acre}}$$

Table 1. Headline® SC fungicide Restrictions and Limitations Overview*

Crop/Crop Group**	Minimum Time from Application to Harvest (PHI) (days)	Maximum Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A) (lbs ai pyraclostrobin)
Alfalfa	14	9	3	27**** (0.45)
Barley	See Table 2. Headline® SC fungicide Crop-specific Requirements	9	2	18 (0.29)
Citrus Fruits Group	0	15	2	54***** (0.88)
Corn*** (all types)	7	12	2	72 (1.18)
Cotton***	30	12	2	36 (0.58)
Dried Shelled Peas and Beans*** (except soybeans)	21	9	2	18 (0.29)
Edible-podded Legume Vegetables	7	9	2	18 (0.29)
Grass Grown for Seed	14	12	2	24 (0.39)
Mint	14	12	2	48 (0.78)
Oats	Apply no later than the beginning of flowering (Feekes 10.5, Zadok's 59)	9	2	18 (0.29)
Oilseed Crops***	21	12	2	24 (0.39)
Peanut***	14	15	2	75 (1.22)
Pecan	14	7	2	28 (0.46)
Rye	Apply no later than 50% head emergence (Feekes 10.3, Zadok's 55)	9	2	18 (0.29)
Sorghum	Apply no later than 25% flowering	12	1	12 (0.20)
Soybean***	21	12	2	24 (0.39)
Succulent Shelled Peas and Beans	7	9	2	18 (0.29)
Sugar Beet*** (roots and tops)	7	12	2	48 (0.78)

(continued)

Table 1. Headline® SC fungicide Restrictions and Limitations Overview* (continued)

Crop/Crop Group**	Minimum Time from Application to Harvest (PHI) (days)	Maximum Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A) (lbs ai pyraclostrobin)
Tuberous and Corm Vegetables Subgroup*** (includes potato)	3	12	1	72 (1.18)
Wheat and Triticale	Apply no later than the beginning of flowering (Feekes 10.5, Zadok's 59)	9	2	18 (0.29)

* See **Table 2. Headline® SC fungicide Crop-specific Requirements** for complete directions and exceptions.

** For a complete list of crops within a crop group, see **Table 2. Headline® SC fungicide Crop-specific Requirements**.

*** The maximum product rate per season includes the combination in-furrow and foliar uses.

**** **DO NOT** apply more than 27 fl ozs/A (0.45 lb ai/acre) of **Headline SC** in alfalfa per year.

***** For specific information on maximum use rates per season, see **Table 2. Headline® SC fungicide Crop-specific Requirements, Citrus Fruits**.

Aerial application is permitted for all labeled crops. **For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).**

Table 2. Headline® SC fungicide Crop-specific Requirements

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Alfalfa	Anthracnose <i>Colletotrichum trifolii</i> Common leaf spot <i>Pseudopeziza medicaginis</i> Downy mildew <i>Peronospora trifoliorum</i> Leaf spot <i>Leptosphaerulina briosiani</i> Powdery mildew <i>Erysiphe pisi</i> Rhizoctonia blight/black patch <i>Rhizoctonia</i> spp. Rust <i>Uromyces</i> spp. Spring black stem and leaf spot <i>Phoma medicaginis</i> Stagnospora leaf spot <i>Stagnospora melloti</i> Stemphyllium leaf spot <i>Stemphyllium</i> spp. Summer black stem and leaf spot <i>Cercospora medicaginis</i> Yellow leaf blotch <i>Leptotrichila medicaginis</i>	6 to 9	3	27 (0.45 lb ai/acre)	14

Application Directions. For optimal disease control, begin **Headline SC** applications prior to disease development.

Resistance Management. DO NOT make more than three (3) **Headline SC** applications per year.

Repeat applications on a 14 to 21 day interval if conditions are conducive for disease development. **DO NOT** make more than two (2) **Headline SC** applications per cutting or three (3) **Headline SC** applications per year. Use the higher rate and shorter interval when disease pressure is high.

***DO NOT** apply more than 27 fl ozs/A (0.45 lb ai/acre) of **Headline SC** in alfalfa per year.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Barley	Black point Kernel blight or Head mold <i>Cochliobolus sativus</i> , <i>Alternaria</i> spp. Leaf rust <i>Puccinia hordei</i> , <i>P. recondita</i> Net blotch <i>Pyrenophora teres</i> Powdery mildew <i>Erysiphe graminis</i> f. sp., <i>hordei</i> Scald <i>Rhynchosporium secalis</i> Septoria leaf and glume blotch <i>Septoria</i> spp., <i>Stagonospora</i> spp. Spot blotch <i>Cochliobolus sativus</i> Stem rust <i>Puccinia graminis</i> f. sp., <i>tritici</i> Stripe rust <i>Puccinia striiformis</i> Tan spot Yellow leaf spot <i>Pyrenophora trichostoma</i>	6 to 9*	2	18 (0.29 lb ai/acre)	Apply no later than 50% head emergence (Feekes 10.3, Zadok's 55); 14 days in selected states (see map).

*For early season control of net blotch, Septoria leaf and glume blotch, spot blotch and tan spot when conditions favor disease development, apply 3 to 6 fl ozs per acre of **Headline SC** either in combination with a herbicide application or when conditions favor disease development. When the 3 to 6 fl ozs early season application rate is used, a second application of **Headline SC** may be required to protect the emerged flag leaf. Environmental conditions and disease pressure at the time of flag-leaf emergence are factors to determine the **Headline SC** rate for the second application. The ranges for different levels of these factors are out lined in the following table.

Level of Disease Pressure or Environmental Risk at Flag-leaf Emergence	Headline SC Rate (fl ozs/A)
low	3 to 6
moderate to high	6 to 9

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Application Directions. Begin **Headline SC** applications prior to disease development. To maximize yields in cereals, protect the flag leaf. Apply **Headline SC** immediately after flag-leaf emergence for optimum results.

Headline SC does not control Fusarium head blight (head scab) or prevent the reductions in grain quality that can result from this disease. When head blight is a concern, manage this disease with fungicides that are labeled for and effective in managing this disease, and with cultural practices like crop rotation and plowing to reduce crop residues that serve as an inoculum source.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.29 lb ai pyraclostrobin (18 fl ozs **Headline SC**) per acre per season.

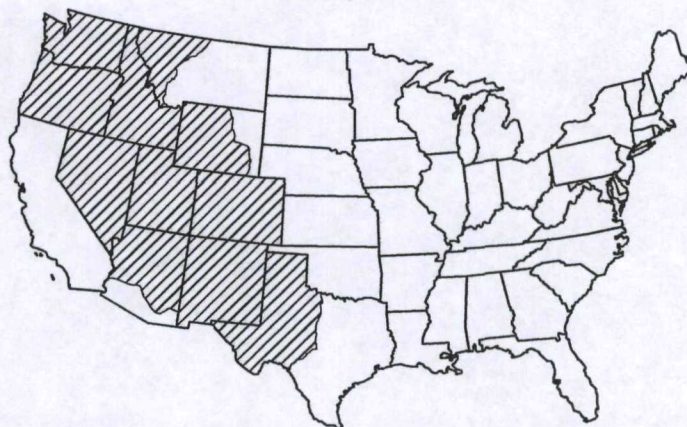
DO NOT make more than two (2) **Headline SC** applications per season.

DO NOT make more than two (2) sequential **Headline SC** applications or other **Group 11** fungicides per season.

DO NOT harvest barley hay or feed green-chopped barley within 14 days of last application.

Barley can be harvested 14 days after the last application in the following states: **AZ** (north of I-10), **CO, ID, MT** (west of Rt 87/I-15), **NV, NM, OR, TX** (west of Rt 283/377), **UT, WA**, and **WY** (west of I-25/I-90), as shown in the **Headline SC Use Area Map - Barley, 14-day PHI**.

**Headline SC Use Area Map - Barley
14-day PHI**



(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Citrus Fruits Group Calamondin Citrus citron Citrus hybrids Chironja Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma Tangelo Tangerine Tangor	Greasy spot <i>Mycosphaerella citri</i>	9 to 12	2	54 (0.88 lb ai/acre)	0
	Scab <i>Elsinoe</i> spp. <hr/> Alternaria brown spot <i>Alternaria citri</i> Anthracnose <i>Colletotrichum acutatum</i> , <i>C. gloeosporioides</i> Black spot <i>Guignardia citricarpa</i> Melanose <i>Diaporthe citri</i> Post bloom fruit drop <i>Colletotrichum acutatum</i>	12 to 15			

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 10- to 21-day interval.

Use the higher rate when disease pressure is high.

For control of diseases other than greasy spot, integrate 1 to 2 **Headline SC** applications early in the spray program.

For greasy spot control, integrate 1 to 2 **Headline SC** applications into the fungicide program during the mid-to-late season.

For aerial application to citrus orchards, use no less than 10 gallons of spray solution per acre.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.88 lb ai pyraclostrobin (54 fl ozs of **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Corn Field corn Popcorn Sweet corn Seed production corn	Anthracnose** <i>Colletotrichum graminicola</i> Eyespot <i>Kabatiella zea</i> Gray leaf spot <i>Cercospora zeamaydis</i> Northern corn leaf blight** <i>Exserohilum turcicum</i> Northern corn leaf spot** <i>Cochliobolus carbonum</i> Physoderma brown spot** <i>Physoderma maydis</i> Rust, common <i>Puccinia sorghi</i> Rust, Southern <i>Puccinia polyspora</i> Southern corn leaf blight** <i>Bipolaris maydis</i> Yellow leaf blight** <i>Phyllosticta maydis</i>	6 to 12	2	72 (1.18 lbs ai/acre)	7

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high. Under high disease pressure for Northern corn leaf blight and Southern corn leaf blight, apply 9 to 12 fl ozs per acre.

Headline SC can be used with adjuvants in corn. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 1.18 lbs ai pyraclostrobin (72 fl ozs of **Headline SC**) per acre per season.

In field corn, DO NOT make more than two (2) **Headline SC** applications per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action. If more than two (2) **Headline SC** applications are made in a multiple spray program, alternate each subsequent **Headline SC** application with at least one (1) application of a **non-Group 11** fungicide.

*The maximum product rate per season includes the combination of infurrow and foliar uses.

**The use rate in California is 9 to 12 fl ozs per acre.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Instructions for Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Corn									
Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)								
	15-inch rows	20-inch rows	22-inch rows	30-inch rows	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.1	3.5								
0.2	7.0	5.2	4.7	3.5	3.3	3.2	3.0		
0.3	10.5	7.8	7.1	5.2	5.0	4.8	4.5	4.3	4.0
0.4	see footnote ¹	10.4	9.5	6.9	6.7	6.4	6.0	5.7	5.4
0.5	see footnote ¹	see footnote ¹	11.8	8.7	8.4	8.0	7.5	7.1	6.7
0.6	see footnote ¹	see footnote ¹	see footnote ¹	10.4	10.0	9.6	9.0	8.5	8.1
0.7	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	11.7	11.2	10.5	10.0	9.4
0.8	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	12.0	11.4	10.8

Application Directions. Use 0.1 to 0.8 fl oz of **Headline SC** per 1000 row feet. Apply at planting as an infurrow application by directing the spray into the furrow before seed is covered. Use a minimum application volume of 2.5 gallons of water per acre.

When Rhizoctonia seedling disease pressure conditions are expected to be severe or if the field has a history of seedling diseases, use **Headline SC** at a product rate per acre equivalent to 9 to 12 fl ozs and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC**.

¹ For 32- to 34-inch rows, use a maximum of 0.7 fl oz per 1000 row feet.
 For 30-inch rows, use a maximum of 0.6 fl oz per 1000 row feet.
 For 22-inch rows, use a maximum of 0.5 fl oz per 1000 row feet.
 For 20-inch rows, use a maximum of 0.4 fl oz per 1000 row feet.
 For 15-inch rows, use a maximum of 0.3 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Cotton	Alternaria leaf spot, boll rot <i>Alternaria</i> spp. Anthracnose, boll rot <i>Glomerella</i> spp. Ascochyta blight, boll rot <i>Ascochyta</i> spp. Cercospora blight and leaf spot <i>Cercospora</i> spp. Diplodia boll rot <i>Diplodia</i> spp. Hard lock, boll rot <i>Fusarium</i> spp. Phoma blight, boll rot <i>Phoma</i> spp. Rust <i>Puccinia</i> spp., <i>Phykopsora</i> spp. Stemphyllium leaf spot <i>Stemphyllium</i> spp.	6 to 12	2	36 (0.58 lb ai/acre)	30

Application Directions. For foliar and boll rot disease control, begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high. For seedling disease control, see infurrow application instructions following.

Headline SC can be used with adjuvants in cotton. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

No livestock grazing or feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.58 lb ai pyraclostrobin (36 fl ozs of **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season includes the combination of infurrow and foliar uses.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Instructions for Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Cotton									
Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)								
	15-inch rows	20-inch rows	22-inch rows	30-inch rows	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.1	3.5								
0.2	7.0	5.2	4.7	3.5	3.3	3.2	3.0		
0.3	10.5	7.8	7.1	5.2	5.0	4.8	4.5	4.3	4.0
0.4	see footnote ¹	10.4	9.5	6.9	6.7	6.4	6.0	5.7	5.4
0.5	see footnote ¹	see footnote ¹	11.8	8.7	8.4	8.0	7.5	7.1	6.7
0.6	see footnote ¹	see footnote ¹	see footnote ¹	10.4	10.0	9.6	9.0	8.5	8.1
0.7	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	11.7	11.2	10.5	10.0	9.4
0.8	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	12.0	11.4	10.8

Application Directions. Use 0.1 to 0.8 fl oz of **Headline SC** per 1000 row feet. Apply at planting as an infurrow application by directing the spray into the furrow before seed is covered. Use a minimum application volume of 2.5 gallons of water per acre.

When Rhizoctonia seedling disease pressure conditions are expected to be severe or if the field has a history of seedling diseases, use **Headline SC** at a product rate per acre equivalent to 9 to 12 fl ozs and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC**.

¹For 32- to 34-inch rows, use a maximum of 0.7 fl oz per 1000 row feet.
 For 30-inch rows, use a maximum of 0.6 fl oz per 1000 row feet.
 For 22-inch rows, use a maximum of 0.5 fl oz per 1000 row feet.
 For 20-inch rows, use a maximum of 0.4 fl oz per 1000 row feet.
 For 15-inch rows, use a maximum of 0.3 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Dried Shelled Peas and Beans (except soybeans) Broad bean Chickpea Guar Lablab bean Lentil Pigeon pea <i>Lupinus</i> spp. Grain lupin Sweet lupin White lupin <i>Phaseolus</i> spp. Field bean Kidney bean Lima bean Navy bean Pink bean Pinto bean Tepary bean <i>Vigna</i> spp. Adzuki bean Black-eyed pea Catjang Cowpea Crowder pea Moth bean Mung bean Rice bean Southern pea Urd bean <i>Pisum</i> spp. Field pea	Anthracnose <i>Colletotrichum</i> spp. Alternaria leaf and pod spot <i>Alternaria</i> spp. Ascochyta blight <i>Phoma exigua</i> , <i>Ascochyta</i> spp. Asian soybean rust** <i>Phakopsora pachyrhizi</i> Cercospora leaf spot <i>Cercospora</i> spp. Downy mildew <i>Phytophthora nicotianae</i> Mycosphaerella blight <i>Mycosphaerella</i> spp. Powdery mildew <i>Erysiphe polygoni</i> Rust <i>Uromyces appendiculatus</i>	6 to 9	2	18 (0.29 lb ai/acre)	21

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high.

Bean forage, bean hay, pea vines, and pea hay may be fed no sooner than 14 days after last application.

Headline SC can be used with adjuvants in dried shelled peas and beans (except soybean). See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.29 lb ai pyraclostrobin (18 fl ozs of **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season includes the combination of infurrow and foliar uses.

See **Asian Soybean Rust Management section for specific instructions on **Headline SC** use to control Asian soybean rust.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Instructions for Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Dried Shelled Beans* (except soybeans)									
Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)								
	15-inch rows	20-inch rows	22-inch rows	30-inch rows	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.1	3.5								
0.2	7.0	5.2	4.7	3.5	3.3	3.2	3.0		
0.3	see footnote ¹	7.8	7.1	5.2	5.0	4.8	4.5	4.3	4.0
0.4	see footnote ¹	see footnote ¹	see footnote ¹	6.9	6.7	6.4	6.0	5.7	5.4
0.5	see footnote ¹	see footnote ¹	see footnote ¹	8.7	8.4	8.0	7.5	7.1	6.7
0.6	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	9.0	8.5	8.1

Application Directions. Use 0.1 to 0.6 fl oz of **Headline SC** per 1000 row feet. Apply at planting as an infurrow application by directing the spray into the furrow before seed is covered. Use a minimum application volume of 2.5 gallons of water per acre.

When Rhizoctonia seedling disease pressure conditions are expected to be severe or if the field has a history of seedling diseases, use **Headline SC** at a product rate per acre equivalent to 9 fl ozs and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 9 fl ozs per acre of **Headline SC**.

*Adzuki bean, black-eyed pea, broad bean, catjang, chickpea, crowder pea, field bean, grain lupin, guar, kidney bean, lablab bean, lima bean, moth bean, mung bean, navy bean, pink bean, pinto bean, rice bean, Southern pea, sweet lupin, tepary bean, urd bean, and white lupin

¹ For 30- to 34-inch rows, use a maximum of 0.5 fl oz per 1000 row feet.
 For 20- to 22-inch rows, use a maximum of 0.3 fl oz per 1000 row feet.
 For 15-inch rows, use a maximum of 0.2 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Edible-podded Legume Vegetables	Alternaria leaf and pod spot <i>Alternaria</i> spp.	6 to 9	2	18 (0.29 lb ai/acre)	7
Jack bean	Anthracnose				
Pigeon pea	<i>Colletotrichum</i> spp.				
Soybean (immature seed)	Ascochyta blight <i>Phoma exigua</i> , <i>Ascochyta</i> spp.				
Sword bean					
<i>Phaseolus</i> spp.					
Runner bean	Asian soybean rust* <i>Phakopsora pachyrhizi</i>				
Snap bean					
Wax bean	Cercospora leaf spot <i>Cercospora</i> spp.				
<i>Vigna</i> spp.					
Asparagus bean	Downy mildew				
Chinese longbean	<i>Phytophthora nicotianae</i>				
Moth bean					
Yardlong bean	Mycosphaerella blight <i>Mycosphaerella</i> spp.				
<i>Pisum</i> spp.					
Dwarf pea					
Edible-podded pea	Powdery mildew <i>Erysiphe Polygoni</i>				
Snowpea					
Sugar snap pea	Rust <i>Uromyces appendiculatus</i>				

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high.

Bean forage, bean hay, pea vines, and pea hay maybe fed no sooner than 14 days after last application.

Headline SC can be used with adjuvants in edible-podded legume vegetables. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.29 lb ai pyraclostrobin (18 fl ozs of **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*See **Asian Soybean Rust Management** section for specific instructions on **Headline SC** use to control Asian soybean rust.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Grass Grown for Seed	Rust <i>Puccinia recondita</i> , <i>P. graminis</i> Suppression Only: Powdery mildew <i>Erysiphe graminis</i>	6 to 12	2	24 (0.39 lb ai/acre)	14

Application Directions. Begin **Headline SC** applications prior to disease development. Apply again 14 to 21 days later.

Use the higher rate and shorter interval when disease pressure is high.

DO NOT graze or feed forage or hay to livestock within 27 days of last application.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.39 lb ai pyraclostrobin (24 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Mint	Leaf spot <i>Ramularia</i> spp., <i>Alternaria</i> spp., <i>Phoma</i> spp. Powdery mildew <i>Erysiphe</i> spp. Rust <i>Puccinia</i> spp.	9 to 12	2	48 (0.78 lb ai/acre)	14

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high.

Headline SC can be used with adjuvants in mint. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.78 lb ai pyraclostrobin (48 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Oats	Crown rust <i>Puccinia coronata</i> Helminthosporium leaf spot <i>Drechslera avenae</i> Leaf blotch <i>Pyrenophora avenae</i> Leaf rust <i>Puccinia</i> spp. Septoria blotch and stem rot <i>Septoria avenae</i> , <i>Phaeosphaeria avenaria</i> , <i>Stagnospora avenae</i> Spot blotch <i>Bipolaris</i> spp. Stem rust <i>Puccinia graminis</i>	6 to 9*	2	18 (0.29 lb ai/acre)	Apply no later than the beginning of flowering (Feekes 10.5, Zadok's 59)

Application Directions. Begin **Headline SC** applications prior to disease development. To maximize yields in cereals, protect the flag leaf. Apply **Headline SC** immediately after flag-leaf emergence for optimum results.

Headline SC does not control Fusarium head blight (head scab) or prevent reductions in grain quality that can result from this disease. When head blight is a concern, manage this disease with fungicides that are labeled for and effective in managing this disease, and with cultural practices like crop rotation and plowing to reduce crop residues that serve as an inoculum source.

DO NOT harvest oat hay or feed green-chopped oats within 14 days of last application.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.29 lb ai pyraclostrobin (18 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) **Headline SC** applications per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*For early season control of leaf blotch, Septoria blotch and stem rot, and spot blotch when conditions favor disease development, apply 3 to 6 fl ozs per acre of **Headline SC** either in combination with a herbicide application or when conditions favor disease development. When the 3 to 6 fl ozs early season application rate is used, a second application of **Headline SC** may be required to protect the emerged flag leaf. Environmental conditions and disease pressure at the time of flag-leaf emergence are factors to determine the **Headline SC** rate for the second application. The rate ranges for different levels of these factors are outlined in the following table.

Level of Disease Pressure or Environmental Risk at Flag-leaf Emergence	Headline SC Rate (fl ozs/A)
low	3 to 6
moderate to high	6 to 9

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Oilseed Crops Rapeseed	Blackleg <i>Leptosphaeria maculans</i> Blackspot <i>Alternaria</i> spp.	6 to 12	2	24 (0.39 lb ai/acre)	21
Flax seed	Pasm <i>Septoria linicola</i>				
Sunflower	Alternaria leaf spot <i>Alternaria</i> spp. Cercospora leaf spot <i>Cercospora helianthi</i> Downy mildew <i>Plasmopara halstedii</i> Powdery mildew <i>Erysiphe cichoracearum</i> Rust <i>Puccinia helianthi</i> , <i>Uromyces</i> spp. Septoria leaf spot <i>Septoria</i> spp. White rust <i>Albugo tragopogonis</i>				

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Rapeseed. For control of blackleg, apply **Headline SC** at 2- to 4-leaf stage. **For control of blackspot,** apply **Headline SC** at early pod development. A second application 7 to 10 days later can be made if disease persists or if weather conditions are favorable for disease development.

Flax seed. Apply **Headline SC** at mid-flowering (7 to 10 days after flower initiation). Make a second application 7 to 10 days later if disease persists or if weather conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high.

Headline SC can be used with adjuvants in oilseed crops. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.39 lb ai pyraclostrobin (24 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season for **sunflower** includes the combination of infurrow and foliar uses.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Oilseed Crops (continued) Borage Castor oil plant Chinese tallowtree Crambe Cuphea Echium Euphorbia Evening primrose Gold of pleasure (Camelina) Hare's ear mustard Jojoba Lesquerella Lunaria Meadowfoam Milkweed Mustard seed Niger seed Oil radish Poppy seed Rose hip Safflower Sesame Stokes aster Sweet rocket Tallowwood Tea oil plant Vernonia	<i>Alternaria</i> spp. <i>Septoria</i> spp.	6 to 12	2	24 (0.39 lb ai/acre)	21

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high.

Headline SC can be used with adjuvants in oilseed crops. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.39 lb ai pyraclostrobin (24 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a **non-Group 11** fungicide with a different mode of action.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Instructions for Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Sunflower									
Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)								
	15-inch rows	20-inch rows	22-inch rows	30-inch rows	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.1	3.5								
0.2	7.0	5.2	4.7	3.5	3.3	3.2	3.0		
0.3	10.5	7.8	7.1	5.2	5.0	4.8	4.5	4.3	4.0
0.4	see footnote ¹	10.4	9.5	6.9	6.7	6.4	6.0	5.7	5.4
0.5	see footnote ¹	see footnote ¹	11.8	8.7	8.4	8.0	7.5	7.1	6.7
0.6	see footnote ¹	see footnote ¹	see footnote ¹	10.4	10.0	9.6	9.0	8.5	8.1
0.7	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	11.7	11.2	10.5	10.0	9.4
0.8	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	12.0	11.4	10.8

Application Directions. Use 0.1 to 0.8 fl oz of **Headline SC** per 1000 row feet. Apply at planting as an infurrow application by directing the spray into the furrow before seed is covered. Use a minimum application volume of 2.5 gallons of water per acre.

When Rhizoctonia seedling disease pressure conditions are expected to be severe or if the field has a history of seedling diseases, use **Headline SC** at a product rate per acre equivalent to 9 to 12 fl ozs and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC**.

¹ For 32- to 34-inch rows, use a maximum of 0.7 fl oz per 1000 row feet.
 For 30-inch rows, use a maximum of 0.6 fl oz per 1000 row feet.
 For 22-inch rows, use a maximum of 0.5 fl oz per 1000 row feet.
 For 20-inch rows, use a maximum of 0.4 fl oz per 1000 row feet.
 For 15-inch rows, use a maximum of 0.3 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Peanut	Early leaf spot <i>Cercospora arachidicola</i> Late leaf spot <i>Cercosporidium personatum</i> Pepperspot <i>Leptosphaerulina crasiasca</i> Rust <i>Puccinia arachidis</i> Web blotch <i>Phoma arachidicola</i>	6 to 15 (see details below)	2	75 (1.22 lbs ai/acre)	14
	Rhizoctonia limb rot, Peg rot, Pod rot <i>Rhizoctonia solani</i> Sclerotium rot, Southern stem rot, Southern blight, and White mold <i>Sclerotium rolfsii</i> Suppression Only: Sclerotinia blight <i>Sclerotinia minor</i>	9 to 15			
	Cylindrocladium black rot <i>Cylindrocladium crotaleariae</i>	12 to 15			

Application Directions. For control of early and late leaf spot, pepperspot, rust, and web blotch, begin **Headline SC** applications prior to disease development and continue on a 14- to 21-day interval. When using a 14-day spray interval, apply **Headline SC** at 6 to 12 fluid ounces per acre. At spray intervals between 14 and 21 days, apply **Headline SC** at 9 to 15 fluid ounces per acre.

For control of Rhizoctonia and Sclerotium, begin **Headline SC** applications prior to disease development and continue on a 14- to 28-day interval. For intervals greater than 14 days, use 15 fluid ounces per acre.

Use the higher rate and/or shorter spray interval when disease pressure is high or in fields with a history of disease.

Headline SC can be used with adjuvants in peanut; however, mixes with silicone-containing adjuvants may cause crop injury under certain conditions. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

Peanut meal can be fed. **DO NOT** graze or harvest for forage use.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 1.22 lbs ai pyraclostrobin (75 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action. In spray programs where four (4) or less fungicide applications are made in a season, **Headline SC** should be alternated with at least one (1) application of a labeled **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season includes the combination of infurrow and foliar uses.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Instructions for Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Peanut									
Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)								
	15-inch rows	20-inch rows	22-inch rows	30-inch rows	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.1	3.5								
0.2	7.0	5.2	4.7	3.5	3.3	3.2	3.0		
0.3	10.5	7.8	7.1	5.2	5.0	4.8	4.5	4.3	4.0
0.4	see footnote ¹	10.4	9.5	6.9	6.7	6.4	6.0	5.7	5.4
0.5	see footnote ¹	see footnote ¹	11.8	8.7	8.4	8.0	7.5	7.1	6.7
0.6	see footnote ¹	see footnote ¹	see footnote ¹	10.4	10.0	9.6	9.0	8.5	8.1
0.7	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	11.7	11.2	10.5	10.0	9.4
0.8	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	12.0	11.4	10.8

Application Directions. Use 0.1 to 0.8 fl oz of **Headline SC** per 1000 row feet. Apply at planting as an infurrow application by directing the spray into the furrow before seed is covered. Use a minimum application volume of 2.5 gallons of water per acre.

When Rhizoctonia seedling disease pressure conditions are expected to be severe or if the field has a history of seedling diseases, use **Headline SC** at a product rate per acre equivalent to 9 to 12 fl ozs and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC** for peanut infurrow use.

¹ For 32- to 34-inch rows, use a maximum of 0.7 fl oz per 1000 row feet.
 For 30-inch rows, use a maximum of 0.6 fl oz per 1000 row feet.
 For 22-inch rows, use a maximum of 0.5 fl oz per 1000 row feet.
 For 20-inch rows, use a maximum of 0.4 fl oz per 1000 row feet.
 For 15-inch rows, use a maximum of 0.3 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Pecan	Pecan scab <i>Cladosporium caryigenum</i>	6 to 7	2	28 (0.46 lb ai/acre)	14

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 14-day interval. For optimum performance, apply **Headline SC** early in the spray program (e.g. prepollination and first cover).

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.46 lb ai pyraclostrobin (28 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Potato	Black dot <i>Colletotrichum coccoodes</i>	6 to 9	1	72 (1.18 lbs ai/acre)	3
	Early blight <i>Alternaria solani</i>				
	Late blight <i>Phytophthora infestans</i>	6 to 12			
	Powdery mildew <i>Erysiphe</i> spp., <i>Leveillula taurica</i>				
	Suppression Only: White mold <i>Sclerotinia sclerotiorum</i>				

Application Directions. Begin **Headline SC** applications at 7- to 14-day intervals prior to disease development. The low rate and longer interval can be used early season prior to the observance of symptoms and when disease pressure is low. **For control of late blight**, follow **Headline SC** application with a labeled **non-Group 11** fungicide with a different mode of action 5 to 7 days later.

Use the higher rates and shorter intervals once disease has been confirmed in your area or weather conditions are favorable to disease development.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 1.18 lbs ai pyraclostrobin (72 fl oz **Headline SC**) per acre per season.

DO NOT make more than one (1) **Headline SC** application before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season includes the combination of infurrow and foliar uses.

Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Potatoes

Use 0.4 to 0.8 fl oz of **Headline SC** per 1000 row feet. For applications on 32-inch or 34-inch rows, the maximum application rate is 0.73 fl oz/1000 row feet. Apply at planting as an infurrow spray by directing spray pattern to uniformly cover seed pieces and surrounding soil. The spray pattern must be a 4- to 8-inch band applied to the seed piece prior to being covered with soil.

When Rhizoctonia disease pressure conditions are expected to be severe or if the field has a history of Rhizoctonia infestations, use **Headline SC** at 0.6 to 0.8 fl oz per 1000 row feet and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC**.

Use a minimum volume of application of 5 gallons of water per acre.

Headline SC Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)				
	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.4	6.7	6.4	6.0	5.7	5.4
0.6	10.0	9.6	9.0	8.6	8.1
0.8	see footnote ¹	see footnote ¹	12.0	11.4	10.8

¹For 32-inch or 34-inch rows, use a maximum of 0.73 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Rye	Leaf rust <i>Puccinia recondita</i> Leaf spot <i>Pyrenophora</i> spp. Powdery mildew <i>Erysiphe graminis</i> Septoria leaf and glume blotch <i>Septoria</i> spp., <i>Stagonospora</i> spp. Stem rust <i>Puccinia graminis</i> Stripe rust <i>Puccinia striiformis</i>	6 to 9*	2	18 (0.29 lb ai/acre)	Apply no later than 50% head emergence (Feekes 10.3, Zadok's 55)

Application Directions. Begin **Headline SC** applications prior to disease development. To maximize yields in cereals, protect the flag leaf. Apply **Headline SC** immediately after flag-leaf emergence for optimum results.

Headline SC does not control Fusarium head blight (head scab) or prevent the reductions in grain quality that can result from this disease. When head blight is a concern, manage this disease with fungicides that are labeled for and effective in managing this disease, and with cultural practices like crop rotation and plowing to reduce crop residues that serve as an inoculum source.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.29 lb ai pyraclostrobin (18 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) **Headline SC** applications per season.

DO NOT make more than two (2) sequential **Headline SC** applications or other **Group 11** fungicides per season.

*For early season control of leaf spot and Septoria leaf and glume blotch when conditions favor disease development, apply 3 to 6 fl ozs per acre of **Headline SC** either in combination with a herbicide application or when conditions favor disease development. When the 3 to 6 fl ozs early season application rate is used, a second application of **Headline SC** may be required to protect the emerged flag leaf. Environmental conditions and disease pressure at the time of flag-leaf emergence are factors to determine the **Headline SC** rate for the second application. The ranges for different levels of these factors are outlined in the following table.

Level of Disease Pressure or Environmental Risk at Flag-leaf Emergence	Headline SC Rate (fl ozs/A)
low	3 to 6
moderate to high	6 to 9

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Sorghum	Anthracnose <i>Colletotrichum graminicola</i> Gray leaf spot <i>Cercospora</i> spp. Northern leaf blight <i>Exserohilum turcicum</i> Rust <i>Puccinia</i> spp. Southern leaf blight <i>Bipolaris</i> spp.	6 to 12	1	12 (0.20 lb ai/acre)	Apply no later than 25% flowering

Application Directions. Begin **Headline SC** applications prior to disease development.

Use the higher rate when disease pressure is high.

Under high disease pressure for Northern leaf blight and Southern leaf blight, apply 9 to 12 fl ozs per acre.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.20 lb ai/acre pyraclostrobin (12 fl ozs **Headline SC**) per acre per season.

DO NOT make more than one (1) **Headline SC** application per season. If additional fungicide applications are needed, use a labeled **non-Group 11** fungicide with a different mode of action.

(continued)

34048

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Soybean <i>(Glycine max)</i>	Alternaria leaf spot <i>Alternaria</i> spp.	6 to 12	2	24 (0.39 lb ai/acre)	21
	Anthracnose <i>Colletotrichum truncatum</i>				
	Asian soybean rust** <i>Phakopsora pachyrhizi</i>				
	Brown spot <i>Septoria glycines</i>				
	Cercospora blight <i>Cercospora kikuchii</i>				
	Frogeye leaf spot <i>Cercospora sojina</i>				
	Pod and stem blight <i>Diaporthe phaseolorum</i>				
	Rhizoctonia aerial blight <i>Rhizoctonia solani</i>				
Suppression Only: Southern blight <i>Sclerotium rolfsii</i>	12				

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high.

For control of soybean rust, apply **Headline SC** prior to infection.

Headline SC can be used with adjuvants in soybeans. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

Soybean forage can be fed no sooner than 14 days after last application.

Soybean hay can be fed no sooner than 21 days after last treatment.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.39 lb ai pyraclostrobin (24 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season includes the combination of infurrow and foliar uses.

See **Asian Soybean Rust Management section for specific instructions on **Headline SC** use to control Asian soybean rust.

(continued)

350948

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Instructions for Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Soybean									
Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)								
	15-inch rows	20-inch rows	22-inch rows	30-inch rows	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.1	3.5								
0.2	7.0	5.2	4.7	3.5	3.3	3.2	3.0		
0.3	10.5	7.8	7.1	5.2	5.0	4.8	4.5	4.3	4.0
0.4	see footnote ¹	10.4	9.5	6.9	6.7	6.4	6.0	5.7	5.4
0.5	see footnote ¹	see footnote ¹	11.8	8.7	8.4	8.0	7.5	7.1	6.7
0.6	see footnote ¹	see footnote ¹	see footnote ¹	10.4	10.0	9.6	9.0	8.5	8.1
0.7	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	11.7	11.2	10.5	10.0	9.4
0.8	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	12.0	11.4	10.8

Application Directions. Use 0.1 to 0.8 fl oz of **Headline SC** per 1000 row feet. Apply at planting as an infurrow application by directing the spray into the furrow before seed is covered. Use a minimum application volume of 2.5 gallons of water per acre.

When Rhizoctonia seedling disease pressure conditions are expected to be severe or if the field has a history of seedling diseases, use **Headline SC** at a product rate per acre equivalent to 9 to 12 fl ozs and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC**.

¹For 32- to 34-inch rows, use a maximum of 0.7 fl oz per 1000 row feet.
 For 30-inch rows, use a maximum of 0.6 fl oz per 1000 row feet.
 For 22-inch rows, use a maximum of 0.5 fl oz per 1000 row feet.
 For 20-inch rows, use a maximum of 0.4 fl oz per 1000 row feet.
 For 15-inch rows, use a maximum of 0.3 fl oz per 1000 row feet.

Asian Soybean Rust Management

If Asian soybean rust spores are present in the area, beans or peas may be infected even if symptoms are not present. Once Asian soybean rust is established (infection level* greater than 3% to 5%) on the bean or pea plant, control is difficult to achieve with a curative approach. Optimum disease control is achieved by utilizing the combination of a preventive fungicide like **Headline® SC fungicide** plus an EPA-approved fungicide (non-QoI mode of action) with known curative activity** against Asian soybean rust.

A comprehensive monitoring and scouting program must be continued after initial fungicide applications. Fungicide treatments that include **Headline SC** will protect beans or peas against Asian soybean rust for up to 21 days, but subsequent disease infection of treated leaves can occur earlier if conditions are favorable for disease development. New leaves emerging after treatment will not be protected from new infection pressure.

Monitoring for Asian Soybean Rust Presence

Information on the geographic distribution of Asian soybean rust can be gathered from multiple sources, including local retailers, university extension, USDA, the Internet and BASF. These sources must be evaluated frequently during the growing season to determine the risk and local presence of rust spores in your geography. Rust spores can move hundreds of miles in only a few days based on wind direction and speed. If Asian soybean rust is present in the area or if conditions exist where spore movement from infected areas is expected or predicted, bean or pea fields should be treated utilizing the **Headline SC** program described in **Table 2A**.

Field Scouting

Scout bean or pea fields for presence of Asian soybean rust frequently. Asian soybean rust establishment is favored by high humidity, free moisture present on leaves and moderate air temperatures. Asian soybean rust, in most cases, becomes especially aggressive and visible when plants reach the reproductive stage of growth (flowering). Check higher risk areas of bean or pea fields for signs of disease first. These include: earlier planted or maturing beans or peas; high moisture areas near lakes, rivers or other water sources that keep humidity high; areas in the field that remain shaded longer resulting in higher free leaf moisture; low areas of fields where humidity (dew) can settle and persist longer. Look for any signs of symptoms of soybean rust presence. If Asian soybean rust is present in your field, immediately implement **Headline SC** program described in **Table 2A**.

Scouting tip. Collect leaves from suspected plants, place suspect leaves in a clear plastic bag, inflate bag with breath (adds humidity to bag) and seal, place in warm (75° to 90° F) environment and incubate in humid plastic bags for 24 hours. Leaves in the bags should display

accelerated disease development and show spore pustule development within 24 hours. Spore development should occur approximately two times faster than under normal field conditions.

Headline SC Instructions for Asian Soybean Rust Management

Preventive + Curative Treatment

Existing Infections and/or if Asian Soybean Rust Spores Are Present or Predicted to be in the Area

A tank mixture with an EPA-approved fungicide (non-QoI mode of action) with known curative activity** against Asian soybean rust is required for control of existing Asian soybean rust infections even if symptoms are not present. If symptoms or Asian soybean rust lesions and/or pustules are present on bean or pea plants, some yield loss may have already occurred.

The **Headline SC** program described in **Table 2A** must be used for Asian soybean rust if **one or more of the following conditions exists:**

1. Asian soybean rust is present in the bean or pea field based on field scouting.
2. Asian soybean rust is present in the local area.
3. Predictive models based on weather/wind have predicted that spores have reached or will soon reach your area.
4. USDA and/or university extension report that Asian soybean rust (including spores) has been identified in your geographical area.

Fungicide treatments that include **Headline SC** plus an EPA-approved fungicide (non-QoI mode of action) with known curative activity** against Asian soybean rust will protect beans or peas for up to 21 days, but subsequent infection of treated leaves can occur earlier if conditions are favorable for disease development. New leaves emerging after treatment will not be protected from new infection pressure.

Because a second fungicide application may be required, a comprehensive monitoring and scouting program must be continued after the initial fungicide application. Base the need for second application on bean or pea growth stage, yield potential and conditions favorable for continued Asian soybean rust infection.

Additional fungicide applications may be needed if Asian soybean rust pressure is extremely high and conditions are favorable for disease development later in the growing season. Continue the monitoring and scouting program and apply an EPA-approved fungicide (non-QoI mode of action) with known curative activity if a third application is needed.**

* Infection level = number of leaves with symptoms/signs of Asian soybean rust per 100 leaves.

**Contact your local, state or federal agricultural authorities or local retailer for a list of fungicides approved in your state with known curative properties against Asian soybean rust.

Thorough spray coverage of bean and pea plants is essential for optimum control. Utilize spray application techniques including sufficient water carrier per acre, pressure and proper nozzle selection that ensure thorough coverage. Consult your local retailer or university extension representative for guidance, as needed.

Preventive Treatment

Asian Soybean Rust (including spores) Not Present or Predicted to be Present in the Field or Area

The preventive **Headline® SC fungicide** program described in **Table 2B** should only be used if none of the conditions described in one through four of the section immediately preceding exist. Growers must continue to monitor and scout bean and pea fields as described in **Monitoring for Asian Soybean Rust Presence and Field Scouting** sections.

A second fungicide application may be needed if Asian soybean rust (including spores) is detected or identified in the treated field or geographical area. Continue a comprehensive monitoring and scouting program after the initial application of **Headline SC**. Infection of treated bean and pea leaves can occur, and new leaves emerging after treatment will not be protected from Asian soybean rust. Base the need for a second application on bean and pea growth stage, yield potential and environmental conditions. If a second application is necessary, apply **Headline SC** plus an effective EPA-approved fungicide (non-QoI mode of action) with known curative activity* against Asian soybean rust.

Additional fungicide applications may be needed if Asian soybean rust pressure is extremely high and conditions are favorable for disease development later in the growing season. Continue the monitoring and scouting program, and apply an EPA-approved fungicide (non-QoI mode of action) with known curative activity* if a third application is needed.

*Contact your local, state or federal agricultural authorities or local retailer for a list of fungicides approved in your state with known curative properties against Asian soybean rust.

Need for Season-long Monitoring, Regardless of Headline SC Program Selected

The key to adequate season-long control of Asian soybean rust is careful monitoring and scouting of bean and pea fields all season, especially from initiation of flowering through pod fill. After the first application, maintain a thorough monitoring and scouting program. Apply follow-up fungicide treatments as needed based on crop stage of growth, yield potential, and as the residual protection of the first application begins to wane.

Table 2A. Headline® SC fungicide application instructions when Asian soybean rust has been identified in the bean or pea field to be treated, is present in the local geographical area or spores have been predicted to be in the local geographical area

Application 1	Treatment	Headline SC (6 to 9 fl ozs/A) ^a + adjuvant + EPA-approved fungicide (non-QoI mode of action) with known curative activity against Asian soybean rust ^b
	Timing	This application must be made soon after first rust infection, preventively, or at blooming start (growth stage R1 to R3), even if symptoms have not appeared. See Headline SC Instructions for Asian Soybean Rust Management section and repeat application as necessary, depending on disease evolution.
Application 2^c	Treatment	Headline SC (6 to 9 fl ozs/A) ^a + adjuvant + EPA-approved fungicide (non-QoI mode of action) with known curative activity against Asian soybean rust ^b
	Timing	21 days after Application 1 or Earlier (no sooner than 7 days) if monitoring shows active disease

^a Higher labeled rates of **Headline SC** provide longer residual control of Asian soybean rust.
^b Contact your local, state or federal agricultural authorities or local retailer for a list of approved fungicides in your state approved for this purpose.
^c Continue to carefully monitor and scout bean or pea fields as described in the **Asian Soybean Rust Management** section. Base the need for second application on results of monitoring and scouting for disease, crop growth stage and yield potential. Consult with your local retailer or university extension representative for guidance, as needed.

Additional fungicide applications may be needed if Asian soybean rust pressure is extremely high and conditions are favorable for disease development later in the growing season. Continue the monitoring and scouting program and apply an EPA-approved fungicide (non-QoI mode of action) with known curative activity if a third application is needed.

Table 2B. Headline® SC fungicide application instructions when Asian soybean rust has not been identified in the bean or pea field to be treated, is not present in the local geographical area and spores are not present or predicted to be present in the local geographical area

Application 1	Treatment	Headline SC (6 to 9 fl ozs/A) ^a + adjuvant
	Timing	R1 to R3 leaf stage (first flower to beginning pod)
Application 2^c	Treatment	Headline SC (6 to 9 fl ozs/A) ^a + adjuvant + EPA-approved fungicide (non-QoI mode of action) with known curative activity against Asian soybean rust ^b
	Timing	21 days after Application 1 or Earlier (no sooner than 7 days) if monitoring shows active disease

^a Higher labeled rates of **Headline SC** provide longer residual control of Asian soybean rust.

^b Contact your local, state or federal agricultural authorities or local retailer for a list of fungicides in your state approved for this purpose.

^c Continue to carefully monitor and scout bean or pea fields as described in the **Asian Soybean Rust Management** section. If Asian soybean rust, including spores is detected in your fields or local geography, the treatment described in **Application 2** may be needed. Base the need for this treatment on crop stage of growth, environmental conditions and yield potential. Consult with your local retailer or university extension representative for guidance, as needed. Refer to **Application Instructions** section.

Additional fungicide applications may be needed if Asian soybean rust pressure is extremely high and conditions are favorable for disease development later in the growing season. Continue the monitoring and scouting program and apply an EPA-approved fungicide (non-QoI mode of action) with known curative activity if a third application is needed.

Instructions for ground applications:

For best Asian soybean rust control, spray coverage must contact all soybean foliage, including both upper and lower areas of the soybean canopy. Instructions for best spray coverage include:

1. Select spray nozzles that maximize medium to fine droplets
2. Increase spray volume per acre to a minimum of 15 gpa
3. Increase spray pressure (within nozzle specifications) to maximize penetration of spray into the soybean canopy

Table 2. **Headline® SC fungicide Crop-specific Requirements** (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Succulent Shelled Peas and Beans	Alternaria leaf and pod spot <i>Alternaria</i> spp.	6 to 9	2	18 (0.29 lb ai/acre)	7
Pigeon pea	Anthracnose <i>Colletotrichum</i> spp.				
<i>Vigna</i> spp.	Ascochyta blight <i>Phoma exigua</i> , <i>Ascochyta</i> spp.				
Black-eyed pea					
Cowpea					
Southern pea					
<i>Pisum</i> spp.	Asian soybean rust* <i>Phakopsora pachyrhizi</i>				
Broad bean					
English pea					
Garden pea					
Green pea					
<i>Phaseolus</i> spp.	Downy mildew <i>Phytophthora nicotianae</i> , <i>P. phaseoli</i>				
Lima bean, green	Mycosphaerella blight <i>Mycosphaerella</i> spp.				
	Powdery mildew <i>Erysiphe polygoni</i>				
	Rust <i>Uromyces appendiculatus</i>				

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 7- to 14-day interval if conditions are favorable for disease development.

Use the higher rate and shorter interval when disease pressure is high.

Bean forage, bean hay, pea vines, and pea hay may be fed no sooner than 14 days after last application.

Headline SC can be used with adjuvants in succulent shelled peas and beans. See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.29 lb ai pyraclostrobin (18 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) sequential **Headline SC** applications before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*See **Asian Soybean Rust Management** section for specific instructions on **Headline SC** use to control Asian soybean rust.

(continued)

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Sugar Beet (roots and tops)	Cercospora leaf spot <i>Cercospora beticola</i> Powdery mildew <i>Erysiphe betae</i>	9 to 12	2	48 (0.78 lb ai/acre)	7

Application Directions. Begin **Headline SC** applications prior to disease development and continue on a 14-day interval.

Use the higher rate when disease pressure is high.

Headline SC applications will aid in the control of Rhizoctonia stem canker and crown rot.

In sugar beet, **Headline SC** can be combined with low rates of crop oil concentrate (COC), methylated seed oil (MSO), and nonionic surfactant (NIS) adjuvants. **DO NOT** use silicone-containing adjuvants. Some combinations and rates may result in temporary crop injury.

Headline SC Tank Mixes. **Headline SC** can be tank mixed with herbicides such as **Poast® herbicide, Select® herbicide, Assure® II herbicide** or **Prism® herbicide** for postemergence control of grasses in sugar beet. **DO NOT** use silicone-based adjuvants in such combinations. **Headline SC** tank mix combinations can include COC or MSO; however, crop injury may result. The level of injury tends to increase with increasing rates of COC or MSO.

See **Additives and Tank Mixing Information** and **Mixing Order** sections for more details.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.78 lb ai pyraclostrobin (48 fl ozs **Headline SC**) per acre per season.

DO NOT make more than one (1) **Headline SC** application before the 4-leaf stage of plant growth. After the 4-leaf stage of plant growth, **DO NOT** make more than (1) **Headline SC** application before alternating to a **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season includes the combination of in-furrow and foliar uses.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Instructions for Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Sugar Beet									
Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)								
	15-inch rows	20-inch rows	22-inch rows	30-inch rows	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.1	3.5								
0.2	7.0	5.2	4.7	3.5	3.3	3.2	3.0		
0.3	10.5	7.8	7.1	5.2	5.0	4.8	4.5	4.3	4.0
0.4	see footnote ¹	10.4	9.5	6.9	6.7	6.4	6.0	5.7	5.4
0.5	see footnote ¹	see footnote ¹	11.8	8.7	8.4	8.0	7.5	7.1	6.7
0.6	see footnote ¹	see footnote ¹	see footnote ¹	10.4	10.0	9.6	9.0	8.5	8.1
0.7	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	11.7	11.2	10.5	10.0	9.4
0.8	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	see footnote ¹	12.0	11.4	10.8

Application Directions. Use 0.1 to 0.8 fl oz of **Headline SC** per 1000 row feet. Apply at planting as an infurrow application by directing the spray into the furrow before seed is covered. Use a minimum application volume of 2.5 gallons of water per acre.

When Rhizoctonia seedling disease pressure conditions are expected to be severe or if the field has a history of seedling diseases, use **Headline SC** at a product rate per acre equivalent to 9 to 12 fl ozs and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC**.

¹ For 32- to 34-inch rows, use a maximum of 0.7 fl oz per 1000 row feet.
 For 30-inch rows, use a maximum of 0.6 fl oz per 1000 row feet.
 For 22-inch rows, use a maximum of 0.5 fl oz per 1000 row feet.
 For 20-inch rows, use a maximum of 0.4 fl oz per 1000 row feet.
 For 15-inch rows, use a maximum of 0.3 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season* (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Tuberous and Corm Vegetables Subgroup Arracacha Arrowroot Chinese artichoke Jerusalem artichoke Cassava (bitter and sweet) Chayote (root) Chufa Dasheen Edible canna Ginger Leren Sweet potato Tanier True yam Turmeric Yam bean	Downy mildew <i>Plasmopara</i> spp. Leaf spot <i>Cercospora</i> spp., <i>Alternaria</i> spp. Powdery mildew <i>Erysiphe</i> spp., <i>Leveillula taurica</i> Rust <i>Uromyces</i> spp., <i>Puccinia</i> spp.	6 to 12	1	72 (1.18 lbs ai/acre)	3
Potato	Black dot <i>Colletotrichum coccoodes</i> Early blight <i>Alternaria solani</i>	6 to 9			
	Late blight <i>Phytophthora infestans</i> Powdery mildew <i>Erysiphe</i> spp., <i>Leveillula taurica</i> Suppression Only: White mold <i>Sclerotinia sclerotiorum</i>	6 to 12			

Application Directions. Begin **Headline SC** applications at 7- to 14-day intervals prior to disease development. The low rate and longer interval can be used early season prior to the observance of symptoms and when disease pressure is low. **For control of late blight**, follow **Headline SC** application with a labeled fungicide with a different mode of action 5 to 7 days later.

Use the higher rates and shorter intervals once disease has been confirmed in your area or if weather conditions are favorable for disease development.

No livestock feeding restrictions.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 1.18 lbs ai pyraclostrobin (72 fl ozs **Headline SC**) per acre per season.

DO NOT make more than one (1) **Headline SC** application before alternating to a labeled **non-Group 11** fungicide with a different mode of action.

*The maximum product rate per season includes the combination of infurrow and foliar uses. (**For above-listed crops, infurrow use is permitted in potato only.**)

Infurrow Use to Aid in the Control of Soilborne Rhizoctonia in Potatoes

Use 0.4 to 0.8 fl oz of **Headline® SC fungicide** per 1000 row feet. For applications on 32-inch or 34-inch rows, the maximum application rate is 0.73 fl oz/1000 row feet. Apply at planting as an infurrow spray by directing spray pattern to uniformly cover seed pieces and surrounding soil. The spray pattern must be a 4- to 8-inch band applied to the seed piece prior to being covered with soil.

When Rhizoctonia disease pressure conditions are expected to be severe or if the field has a history of Rhizoctonia infestations, use **Headline SC** at 0.6 to 0.8 fl oz per 1000 row feet and/or tank mix with a fungicide having a different mode of action.

DO NOT apply more than 12 fl ozs per acre of **Headline SC**.

Use a minimum volume of application of 5 gallons of water per acre.

Headline SC Rate per 1000 row feet (fl oz product)	Headline SC Rate (fl ozs/A)				
	32-inch rows	34-inch rows	36-inch rows	38-inch rows	40-inch rows
0.4	6.7	6.4	6.0	5.7	5.4
0.6	10.0	9.6	9.0	8.6	8.1
0.8	see footnote ¹	see footnote ¹	12.0	11.4	10.8

¹For 32-inch or 34-inch rows, use a maximum of 0.73 fl oz per 1000 row feet.

Table 2. Headline® SC fungicide Crop-specific Requirements (continued)

Crop	Target Disease	Product Rate per Application (fl ozs/A)	Maximum Number of Sequential Foliar Applications	Maximum Product Rate per Season (fl ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Wheat and Triticale	Black point Kernel smudge <i>Alternaria</i> spp., <i>Helminthosporium</i> spp.	6 to 9*	2	18 (0.29 lb ai/acre)	Apply no later than the beginning of flowering (Feekes 10.5, Zadok's 59)
	Leaf rust <i>Puccinia triticina</i>				
	Powdery mildew <i>Erysiphe graminis</i> f. sp., <i>tritici</i>				
	Septoria leaf and glume blotch <i>Septoria</i> spp., <i>Stagonospora</i> spp.				
	Spot blotch <i>Cochliobolus sativus</i>				
	Stem rust <i>Puccinia graminis</i> f. sp., <i>tritici</i>				
	Stripe rust <i>Puccinia striiformis</i> f. sp., <i>tritici</i>				
	Tan spot Yellow leaf spot <i>Pyrenophora</i> spp.				

Application Directions. Begin **Headline SC** applications prior to disease development. To maximize yields in cereals, protect the flag leaf. Apply **Headline SC** immediately after flag-leaf emergence for optimum results.

Headline SC does not control Fusarium head blight (head scab) or prevent the reductions in grain quality that can result from this disease. When head blight is a concern, manage this disease with fungicides that are labeled for and effective in managing this disease, and with cultural practices like crop rotation and plowing to reduce crop residues that serve as an inoculum source.

DO NOT harvest wheat hay or feed green-chopped wheat within 14 days after last application.

Resistance Management. To limit development of resistance, **DO NOT** apply more than 0.29 lb ai pyraclostrobin (18 fl ozs **Headline SC**) per acre per season.

DO NOT make more than two (2) **Headline SC** applications per season.

DO NOT make more than two (2) sequential **Headline SC** applications or other **Group 11** fungicides per season.

*For early season control of Septoria leaf and glume blotch, spot blotch, and tan spot when conditions favor disease development, apply 3 to 6 fl ozs per acre of **Headline SC** either in combination with a herbicide application or when conditions favor disease development. When the 3 to 6 fl ozs early season application rate is used, a second application of **Headline SC** may be required to protect the emerged flag leaf. Environmental conditions and disease pressure at the time of flag-leaf emergence are factors to determine the **Headline SC** rate for the second application. The rate ranges for different levels of these factors are outlined in the following table.

Level of Disease Pressure or Environmental Risk at Flag-leaf Emergence	Headline SC Rate (fl ozs/A)
low	3 to 6
moderate to high	6 to 9

460f48

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

1108

Cabrio, Headline, Poast, and Pristine are registered trademarks of BASF.

Assure and Prism are registered trademarks of E.I. duPont de Nemours and Company.

Select is a registered trademark of Arysta Life Science North America Corporation.

© 2011 BASF Corporation
All rights reserved.

007969-00289.20111219.**NVA 2011-04-340-0237**
Supersedes: NVA 2010-04-340-0200
Supplemental: NVA 2011-04-340-0236

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709


The Chemical Company

47048

Group 11 Fungicide

Supplemental Label



For aerial application in New York State

This supplemental label expires December 31, 2014 and must not be used or distributed after this date.

Active Ingredient*:

pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy]methyl]phenyl] methoxy-, methyl ester)	23.3%
Other Ingredients:	76.7%
Total:	100.0%

*Equivalent to 2.08 pounds of pyraclostrobin per gallon.

EPA Reg. No. 7969-289

Directions For Use

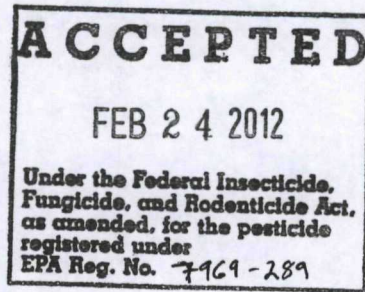
- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- The supplemental labeling and the entire **Headline[®] SC fungicide** container label, EPA Reg. No. 7969-289, must be in possession of the user at the time of application.
- Read the label affixed to the container for **Headline SC** before applying.
- Use of **Headline SC** according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for **Headline SC**.

Application Information

Headline SC can be applied by air in New York State to all labeled crops. Refer to the **Headline SC** container label for specific instructions.

Restrictions and Limitations

For aerial application in New York State, **DO NOT** apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).



Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

1108

Headline is a registered trademark of BASF.

©2011 BASF Corporation
All rights reserved.

007969-00289.20111206.NVA 2011-04-340-0236

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

