Quality Preservation Tool for Potatoes

Based on estimates from the United States Department of Agriculture, 7.5 percent of potato loss occurs during storage. Individual farm loss can be more severe, with entire storages lost at times. While normal transpiration and respiration cause some potato weight loss, the more serious cause is often storage diseases. Storage diseases cannot be cured, but the spread of pathogens can be limited so that healthy potatoes are protected.

Stadium® fungicide combines three active ingredients — fludioxonil, azoxystrobin and difenoconazole — to provide targeted disease control for potatoes. Each active ingredient in Stadium has a different mode of action which is highly effective for managing the spread of silver scurf and Fusarium dry rot during storage. Stadium remains active for months of storage, providing long-lasting protection with only one application.

**Long-lasting Storage Protection with One Application**

- Helps preserve the quality of potatoes during storage by minimizing losses due to silver scurf and Fusarium dry rot.
- Multiple modes of action provide excellent control.
- Prevents Fusarium dry rot infections that enter through wounds at harvest.
- Controls the spread of silver scurf during storage.
- Proven performance in university trials across the US.

**STORAGE DISEASES**

Fusarium dry rot is one of the most important postharvest diseases of potato. Soil borne *Fusarium* infects tubers at harvest through wounds. *Fusarium* can be present in the soil for many years.

Silver scurf causes damage to the potato skin and results in higher water/weight loss during storage. Damaged skin may result in higher waste in removing the skin during processing.
**Integrated Management for Potato Harvest and Storage**

For the best possible yield and quality, growers should utilize an integrated full-season approach from seed through storage. The yield and quality that result from good growing practices must also be protected with good storage practices to preserve potato quality.

- Clean and disinfect all harvest and handling equipment and storage facilities.
- Use preharvest practices that promote good skin maturation such as vine killing to reduce tuber injury.
- Avoid harvesting in cold temperatures: cold tubers are more susceptible to injury. Ideally, harvest when pulp temperatures are 50-65º F.
- Do everything possible to avoid tuber damage during harvest. Fusarium dry rot and Pythium leak must have an injury that breaks the skin in order to infect. Wounded tubers are also more susceptible to other diseases.
- No drops greater than 6-8" during harvest, handling and binning to minimize bruising.
- Use proper storage conditions to promote suberization and wound healing. For 14-21 days until wound healing is complete, provide plenty of oxygen, high humidity greater than 95%, and a warm temperature between 55 and 60º F.
- For the duration of storage, properly manage airflow, temperature and humidity.

**Best Use Guidelines:**

- Coverage is critical. The fungicide must reach the fungus to be effective.
  - Apply Stadium as a postharvest spray at 1 fluid ounce per 2000 pounds of tubers.
  - Potatoes should be as clean and as dirt-free as possible.
  - Potatoes should be in a single layer and rolling during treatment for best coverage.

- Apply 0.5 gallon of carrier per 2000 pounds of tubers.
  - Treated potatoes should appear lightly moist. Carrier volume is too high if potatoes are dripping water or appear shiny.

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Lynn Woodell, University of Idaho

- Stadium is a flowable suspension concentrate formulation. Use constant agitation to ensure Stadium remains in suspension.

- **Stadium may be applied to seed potatoes and seed pieces.**

Stadium fungicide does not have a pre-harvest interval (PHI) because it is applied postharvest.

Stadium MRLs: MRLs in export markets outside of North America are lower than those in the United States and **may not** be high enough to cover residue on all potato products. Prior to Stadium application, growers are advised to check with their potato buyer regarding Stadium use, or visit [www.PostharvestUniversity.com](http://www.PostharvestUniversity.com).