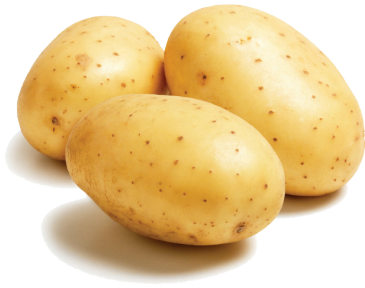


Highland Fresh Technologies Features

Postharvest Process to Enhance Potato Quality



Highland Fresh Technologies is excited to offer a proven postharvest treatment process that enhances quality and reduces losses on potatoes. This easy to implement treatment utilizes the powerful antimicrobial, Selectrocide® high-purity chlorine dioxide, along with a food grade anti-oxidant solution, CS 9300, to address both decay organisms and physiological issues that can negatively impact arrivals and quality of potatoes.

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🌿 Selectrocide shelf life extension

Utilizing a convenient, streamlined application system, Selectrocide biocide is applied to the potatoes in the brush washing process to reduce the level of spoilage organisms and minimize potential cross-contamination in the brush washer. Selectrocide attacks spoilage organisms, such as *Fusarium* sp. and *Erwinia* sp. to reduce decay losses that may occur after packing. Selectrocide is a greater than 99% pure solution of chlorine dioxide in tap water. Selectrocide is produced by a patented sachet that generates a specific amount of chlorine dioxide when water is added. Selectrocide makes it possible to bring the proven antimicrobial performance advantages of high-purity chlorine dioxide to the produce industry.

Selectrocide high-purity chlorine dioxide is very different from products that have been marketed in the past as “stabilized chlorine dioxide” or “acidified sodium chlorite.” Those products require activation with an acid, rather than water, as two chemicals are mixed together to generate a low purity solution that contains a small amount of chlorine dioxide, high levels of salt by-products, and a very low, acidic pH. The corrosiveness of those types of products are primary reasons that many users opted to shy away from them after trying them in the past. Selectrocide is the only single step generation source of high-purity (greater than 99% pure) chlorine dioxide on the market. The unique patented membrane ensures that you end up with the same high-purity, neutral pH solution each time Selectrocide is generated, without the disadvantages of other methods of generation.

🌿 Selectrocide Benefits

- Reduces the level of food spoilage microbes on fruit and vegetables
- Disinfects and sanitizes hard equipment surfaces, including food contact surfaces
- Does not produce unwanted by-products such as trihalomethanes (THMs) or chloramines
- Effective across a broad pH range
- Highly effective at low use concentrations
- Compatible with packinghouse equipment at approved use rates
- Easy to use and cost effective
- A powerful EPA registered antimicrobial with proven performance against spoilage organisms in the produce industry

Check the product label and technical bulletin for additional information on the proper uses of Selectrocide.

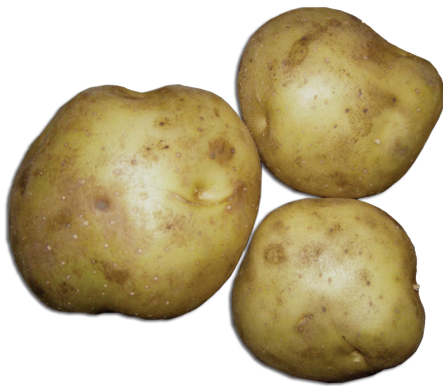
🌿 CS 9300 Anti-browning treatment

After Selectrocide application on the brush-bed, a final rinse containing CS 9300 is applied to reduce undesirable coloring of the potato exterior. The process works by complementing the action of naturally occurring antioxidants in the potato to delay and reduce browning reactions that occur after processing. The treatment also reduces greening of the potato during retail display and home storage. Our customers have observed benefits extending several weeks into storage from the use of Selectrocide and CS 9300 on table stock and plastic wrapped microwave ready potatoes. CS 9300 should be applied ahead of any sprout inhibitor applications, and spent solution should not be recycled in the dump tank or flume. The end result of the Selectrocide and CS 9300 treatment process is a clean, wholesome, and healthy looking potato that is ready for the challenges and expectations of the marketplace.

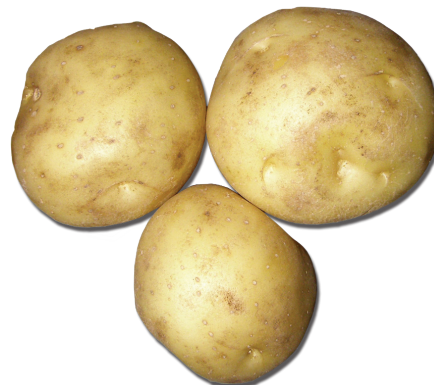
Principal benefits from the Highland Fresh treatment process for potatoes:

- Enhanced shelf life
- Fresher, wholesome looking potatoes
- Reduced browning of the skin, including cuts and scrapes
- Reduced greening during display
- Beneficial on standard as well as wrapped, microwaveable potatoes

Figure 1: A comparison of potatoes with and without the Highland Fresh treatment process.



Control: 4 days post treatment



Selectrocide and CS 9300 treated: 4 days post treatment

Figure 2: A comparison of plastic wrapped microwaveable potatoes with and without the Highland Fresh treatment process.



Control: 7 days post packing



Selectrocide and CS 9300 treated: 7 days post packing