STORAGE | By Michael J. Larose Market Segment Manager—Agrochemical Division, BioSafe Systems

Keeping Quality Up

Using peroxyacetic acid for increasing quality and decreasing loss

A SHIFT TO THE CONTROLLED ENVIRONMENT

Potato cultivation dates as far back as 6,000 to 10,000 years ago. However, it's the innovations in nutrition, pest management, irrigation and cultivars over the last 50 years that have led to a dramatic increase in yields. These advances, coupled with a shift in consumer consumption, created a rapid shift in the potato industry. Two American legends, J.R. Simplot and Roy Kroch, were instrumental in driving the change in consumer demand for potatoes. It took the vision of Simplot to drive the creation of a consistent process for supplying year-round potatoes for Kroch's burgeoning restaurant chain. Two intelligent men with incredible visions turned potatoes into a hot new commodity, shifting the market from being predominantly fresh-market to over 60 percent going to the processing sector.

Following the end of World War II, there were significant technological breakthroughs providing potatoes storages with enhancements in design and insulation, efficient humidification and ventilation systems, increasing automation and sprout inhibitors. These changes turned covered-earth storages into controlled environments.

COMMON ISSUES IN POTATO STORAGES

Producers across the decades have increased efficiencies in the field so dramatically that breaking yield records is still a regular occurrence. Yet when potatoes begin coming out of storage, that yield increase can drop when actual pack-out is measured. Where's the issue when the crop looks great coming in?

For all the innovations made in creating as close to a controlled environment as possible, there are a few strategic practices that often either get overlooked or are nullified due to cost restrictions. These practices include:

- Complete storage cleaning and disinfection
- Bin piler bactericide and fungicide application
- Humidicell water treatment
- In-storage preventative treatments

These practices are in place with most commercial potato producers. However, just as with any production process, there must be a written plan with proven results in order to provide consistent yields and return on investment.

Peroxyacetic (PAA) acid is still considered a newer technology in the agrochemical industry, but it's a powerful chemistry that helps potato producers and shed managers address the critical practices mentioned above. Peroxyacetic acid has proven itself not only in large-scale applications, such as municipal water treatment, but more importantly in environments where efficacy and consistency are of higher importance than low cost. A great example of this is how growers and producers only use chemistries they trust on their crops, cost aside. The applications for peroxyacetic acid are numerous, but it's the expertise of the developer, complete control of the manufacturing and engineering processes and unique formulations of the chemistry that are designed to meet the needs of the customer.

BioSafe Systems is celebrating 20 years of expertise in peroxyacetic acid, with over eight unique PAA formulations and a culture focused on customer-centric principles that has driven the family business to value quality, reliability and effectiveness.