NAPSO News

Leading the future of potato storage!

Welcome to the monthly NAPSO Newsletter!

The North America Potato Storage Organization (NAPSO) is thrilled to bring you our inaugural monthly newsletter, created to provide valuable updates, industry insights, and resources to help you achieve optimal potato storage success.

As a collective of dedicated professionals, we understand the challenges and opportunities that come with managing potato storage operations, and our mission is to support you with relevant information, expert advice, and timely resources.

At NAPSO, we're committed to fostering a connected and thriving community within the potato storage industry.

We hope you find this newsletter informative and engaging. Stay tuned for more updates, tips, and insights in the months ahead!

Warm regards,

The NAPSO Team

In This Issue

- Important Links
- Upcoming Events
- Monthly Topic: *Maintaining Quality and Managing Risks*

Important links

- NAPSO Website: www.napso.info

- NAPSO Safety Resources: napso.info/safety-resources

- NAPSO Webinars: napso.info/napso-webinars

- NAPSO Educational Articles napso.info/educational-articles

"What I say is that, if a fellow really likes potatoes, he must be a pretty decent sort of fellow."
A.A. Milne

Upcoming events

NAPSO now has pins and posters for members to wear or display at booths! Look for our logo at trade shows this winter—we'd love to connect with you!

- **Potato Expo 2025:** NAPSO is hosting a panel of storage experts on Jan 9, 3:45-4:15pm at the Cultivation Stage. Also connect with us on Jan 10, 10am-11am at Magnolia 23
- **Idaho Potato Conference**, Jan 22–23: Addie Waxman will provide a NAPSO update.
- **WA/OR Potato Conference**, Jan 28–30: Emily Merk will deliver a NAPSO update during the Ag Innovation section.
- **Manitoba Potato Production Days**, Jan 28–30.

Monthly Topic: Maintaining Quality and Managing Risks

Last month, NAPSO hosted a webinar titled "*Potato Storage: The First 45 Days*". In this presentation, we covered sprout control, pile management techniques, and disease control methods. Now that December is here, what should you focus on to maintain your crop's quality? This month, NAPSO shares three essential tips to help you maximize storage life and reduce losses.

1. Ramp-Down Temperatures: Safely Transitioning to Storage Conditions

When potatoes are harvested, they are often warm. Placing them directly into cold storage can lead to condensation and moisture buildup, which increases the risk of rot and disease. Gradually lowering the temperature is critical for successful storage.

Best Practices for Ramp-Down Temperatures:

• Initial Acclimation: Hold the potatoes at a temperature that is 25% of the difference from the lowest to the highest harvest temperature for the storage bin. For example: Min harvest pulp temp = 50 F (10 C) and maximum harvest pulp temp = 62 F (16.6 C) then Acclimate at 53 F (11.6 C) = 50 + (62-50)*0.25. This helps expel field heat and acclimates the crop to the storage environment without causing excessive condensation on cooler tubers.
• Gradual Cooling: After acclimation, reduce the temperature by 2–3°F (1–2°C) per day until the target storage temperature of 40–45°F (4–7°C) is reached for table stock potatoes. For French Fry or Chipping potatoes, consult your processor to obtain proper cooling rates and holding temperatures for your variety and market.
• Avoid Sudden Drops: Rapid temperature decreases can cause sweating and excessive moisture, promoting fungal or bacterial growth. Controlled cooling ensures the potatoes remain stress-free and in optimal condition.
Proper temperature management during this ramp-down period ensures efficient cooling without compromising quality or longevity.

2. Moisture Management: Key to Reducing Rot and Shrinkage and Ensure Potato Quality

Maintaining the right moisture levels prevents shrinkage while avoiding excessive moisture that leads to rot and disease outbreaks. Striking the right balance is essential for long-term storage.

How to Manage Moisture Effectively:

• Humidity Control: Maintain relative humidity (RH) at 90–95%. This prevents dehydration and shrinkage while minimizing the risk of rot caused by excessive moisture.
• Ventilation: Fresh air circulation reduces disease development, such as late blight. Use systems that provide consistent airflow while keeping humidity stable.
• Regular Monitoring: Use sensors to track humidity and moisture. Automated systems provide real-time data, helping detect and address deviations in storage conditions.
Balanced moisture levels protect potatoes from excessive drying and disease.

Monthly Topic: Maintaining Quality and Managing Risks

3. Creating a Stable Environment for Long-Term Storage

A *stable* environment is vital for minimizing shrinkage, sprouting, and disease. Potatoes are sensitive to changes in temperature, CO2 levels, and humidity, all of which impact their storage life and quality.

Key Factors for Stability:

• Consistent Temperature: Maintain storage temperatures between 38–45°F (3.3–7°C) for table stock potatoes to minimize sprouting and breakdown. Again for process potatoes consult your processor for proper storage temperature for your potato variety and market. Avoid fluctuations, which stress the crop and reduce storage potential.
• *Air Circulation:* Ensure uniform temperature and humidity with proper airflow. Use fans or ventilation systems to prevent cold spots and condensation.

By consistently monitoring and adjusting these factors, you create an environment that promotes long-term health and quality of your stored potatoes.

Maintaining quality during storage requires careful control of temperature, moisture, and airflow. With effective ramp-down temperatures, humidity regulation, and stable conditions, you can maximize shelf life while preserving your potatoes' quality.

Thank you for reading the NAPSO Monthly Newsletter! Stay tuned for more updates and storage tips next month.

***Any ideas, suggestions, critiques? Feel free to share your thoughts with our Communications Coordinator, Emily Merk on* contact@napso.info**