Components of a Potato Research Storage Facility.

Kerry Larson

There has been a long history in Wisconsin of potato producers, researchers, packers and processors interested in improving the quality of raw potatoes coming out of storage cellars.

The question was asked again in August of 1998 of the WPVGA research committee and a survey was commissioned by the group to ask the WPVGA membership to identify if there is still a need.

Here is the response from members that answered the survey issued in the winter of 1999.
1. Name: (Optional) _____________________________

2. Type of potatoes you store: (Circle choices) Fresh, Seed, Processed frozen, Processed chip, Dehydration

3. Do you feel there is a need for further and more intensive research on potato storage issues in Wisconsin. (Circle one) Yes / No

4. Are you in favor of a new potato storage research facility? (Circle one) Yes / No

5. Who should own the storage research facility? (Circle one) W.P.V.G.A. / State of Wisconsin / Private

6. Who should operate the storage research facility? (Circle one) W.P.V.G.A. / State of Wisconsin / Private

7. Where should the storage research facility be located? (Circle one) U.W. - Madison, Hancock, Antigo, Spooner, Arlington, West Madison, Other: ____________________________


9. What are the top 5 areas of potato storage research you feel would be most beneficial to your operation. (Please rank the top 5 areas with 1 as your highest choice.)

____. Ventilation air dynamics
____. Ventilation equipment and systems.
____. Storage monitoring equipment.
____. Humidity systems
____. Temperature regulation systems
____. Potato handling systems in and out.
____. Construction
____. Insulation systems.
____. Pre harvest crop preparation.
____. Pre harvest storage preparation and sanitation.
____. Post harvest management practices.
____. Short term storage management.
____. Mid term storage management
____. Long term storage management.
____. Storage sanitation
____. Disease control.
____. Tuber physiology in storage.
____. Process potato management and storage
____. Fresh market potato management and storage
____. Chipping potato management and storage
____. Seed potato management and storage.
____. Potato grading technology.
____. Sprout inhibition.
____. Other ____________________________
W.P.V.G.A.  

Do you feel there is a need for further and more intensive research on storage issues in Wisconsin?

Yes (26) - 83.8%  
No (5) - 16.1%

Are you in favor of a new potato storage research facility?

Yes (25) - 77.4%  
No (7) - 22.6%

Type of potatoes stored by respondents.
Question #9: What are the top 5 areas of potato storage research you feel would be most beneficial to your operation?
Should the Wisconsin potato community decided to proceed with the building stage of a potato storage research facility, we have invited a panel of distinguished potato researchers and technicians to present information and viewpoints on the components of a modern potato research facility.

Moderators and Potato Research Committee Chairmen:
Steve Diercks - Farm Manager / Owner - Coloma Farms Inc. - Coloma, WI
Kerry Larson - Agronomist - McCain Foods USA - Plover, WI

Panel Members:
Dr. Walter Stevenson - Department of Plant Pathology - University of Wisconsin.
Dr. Gale Kleinkopf – Superintendent: Kimberly Research and Extension Center, University of Idaho.
Dr. Philip Nolte - Idaho Falls Research and Extension Center – Idaho State University
Mr. Dale Nelson - Owner - Nelson’s Vegetable Storage Systems - Plainfield, WI

I. Dr. Stevenson - What is the current state of potato storage research in Wisconsin?

(Notes)
II. Questions for Dr. Kleinkopf and Dr. Nolte.

A. Please describe the current potato storage research facility in Idaho.  
   (Notes)

B. What types of research are currently being conducted in Idaho?

C. What aspects of potato storage research are priorities in Idaho?

D. What are the best features of the Idaho facility?

E. What features could be changed or added to improve the facility?
III. Questions for Dale Nelson.

A. What size bins should we consider to reproduce real world conditions.

B. What building materials offer the best combination of durability and good storage characteristics?

C. What type of ventilation should be considered?

D. What type of humidification should be considered?

E. What type of control systems should be considered?

G. Are there any chronic mistakes made in commercial storages that might apply to the research facility?