SLVRC POTATO STORAGE REPLACEMENT PROJECT SUMMARY
FOR PRELIMINARY BOARD OF GOVERNOR’S APPROVAL
APRIL 2021
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1. Existing conditions

In 2018, the San Luis Valley Research Center lost its potato storage facility to a wind microburst exceeding 80-mph. The structure was deconstructed and has not yet been replaced.

Since the destruction of the potato storage facility a storage barn has been leased off-site. However, faculty and staff have encountered the following challenges:

- Inability to provide adequate protection to and quantity of novel potato varieties,
- Inability to maintain consistency in research methods due to available internal supply,
- Inability to participate in national variety trials due to constrained internal supply,
- Inability to provide reliable and scalable storage management recommendations,
- Inability to attract research collaboration and awards that address potato disease,
- Inability to attract new potato research talent due to non-existent storage resources,
- Inability to handle any quantity of potatoes in safe manners throughout a calendar year,
- Inability to effectively prepare for seasonal milestones without adequate workspace,
- Inability to adequately support research requests due to inefficient staff labor demands,
- Inability to realize maximum net profits from operations due to low-quality rentals.

Other existing facilities include two labs in the processing building and three cold storage rooms with humidity control, shared by Potato Physiology and Potato Pathology/Seed Certification. The limitations of the current laboratory and cold storage space include:

- Cold rooms have a low ceiling and limited space allows only 1 or 2 storage cribs.
- Seed storage sanitation restrictions prohibit moving material from the processing building into seed storage, creating logistical issues.
- There is no way to scale up pressure bruise experiments without a bulk storage facility.
- The facility is not ideal to study the sprout inhibitors for cross contamination limitations.
## 2. Opportunity

The replacement of the Potato Storage facility provides an opportunity to improve operational efficiencies by providing a laboratory and storage building on the site of the previous shed. Facilities to improve research include:

1.  Crated potato storage w/temp, humidity and ventilation control
2.  HD pallet potato storage w/temp, humidity and ventilation control
3.  Open workspace
4.  Research bulk storage w/temp, humidity and ventilation control

As additional funding is available other desirable items in priority order are:

5.  Additional bulk storage w/temperature and humidity control
6.  Workspace adjacent to the additional bulk storage
7.  Connection to General processing building
8.  Loading dock
9.  Shipment room

![Building Layout Diagram]
3. Impact

The research center has a continuing commitment to the people of the San Luis Valley (SLV) and the State of Colorado to provide research information, conduct extension education and seed certification programs. Strong, forward-looking research and extension programs enable the potato industry to be on the cutting edge of technology that is essential to compete in the markets of today and tomorrow. The primary aim of the postharvest program is to help Colorado Potato industry in the area of long-term storage strategies and maintaining quality in the storage.

4. Space Needs

Conceptual design indicates 12,000-14,500 gsf would be required to accommodate the program.

<table>
<thead>
<tr>
<th>Room type</th>
<th>Number</th>
<th>Total GSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crated potato storage</td>
<td>1</td>
<td>7,000</td>
</tr>
<tr>
<td>Pallet Rack potato storage</td>
<td>1</td>
<td>2,000</td>
</tr>
<tr>
<td>Research Bays</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td>Workspace</td>
<td>1</td>
<td>2,500</td>
</tr>
<tr>
<td>Mechanical</td>
<td></td>
<td>2,500</td>
</tr>
</tbody>
</table>

5. Cost

The estimated budget range is $5.0 M-$7.0M, depending on delivery method and timing of the project approvals. Funding is anticipated to be from university resources and donors.