POTATO VARIETY MANAGEMENT INSTITUTE

Alpine Russet

A processing russet with excellent storage characteristics

- **Yield & Grade**
- **Storage Characteristics**
- **Long Dormancy**
- **Few Defects**
- **A8343-12 x A85103-3**

Disease Ratings

Verticillium	**mod resistant**
Common Scab	**mod resistant**
PVY*	**susceptible**
PVX	**very susceptible**
PLRV	**susceptible**
Net Necrosis	**mod susceptible**
Late Blight Foliar	**susceptible**
Late Blight Tuber	**susceptible**
Dry Rot	**susceptible**
Soft Rot	**susceptible**
Early Blight	**susceptible**
Corky Ringspot	**susceptible**
Root knot nema	**susceptible**

* PVY exhibits typical mosaic symptoms sometimes accompanied by veinal necrosis.

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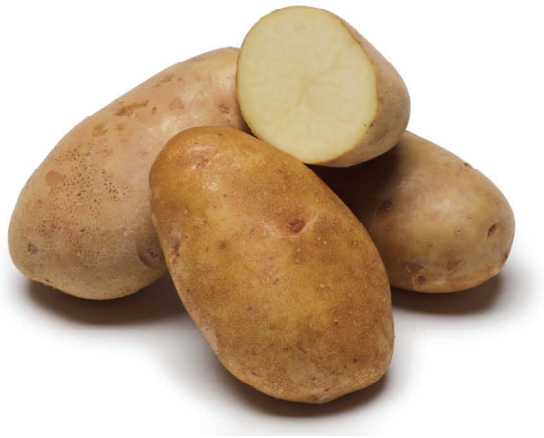


Alpine Russet, known as A9305-10 prior to release, is a high yielding, medium to late maturing cultivar with oblong tubers, light russet skin and good processing quality following long-term storage. It has moderately high specific gravity, resistances to sugar ends, tuber malformations and most internal and external defects. It is notable for a tuber dormancy most similar to that of Russet Burbank, making it an excellent candidate for long-term storage, with processing characteristics superior to that of Russet Burbank.

Alpine Russet produces oblong tubers with medium thickness and light russet skin. The eyes are shallow in depth and intermediate in number and are predominately apical. Tuber set is low, and tuber size is medium large. Alpine Russet consistently produced higher average total and U.S. No. 1 yields in eastern Idaho, Western and Central Idaho, Oregon and Washington in 23 late harvest trials grown, total yields for **Alpine Russet** were 6 to19% higher than Ranger Russet and 5 to 28% higher than Russet Burbank, while U.S. No. 1 yields were 3 to 28% higher than Ranger Russet and 30 to 68% higher than Russet Burbank. **Alpine Russet** has an average Sp. Gravity of 1.082, between that of Ranger and Burbank and produced significantly lighter colored fries than either Ranger Russet or Russet Burbank out of 45^{o}F storage.

Management

Important Considerations: Alpine Russet typically produces a low tuber set (~ 1 less tuber/plant than R. Burbank) and has the potential for extremely large tubers. In-row spacing and nitrogen management are crucial to produce a profit making tuber size profile. Alpine Russet requires only 80 - 90% of Nitrogen required by Russet Burbank. See Agronomy Notes on the website for more detailed information www.pvmi.org.

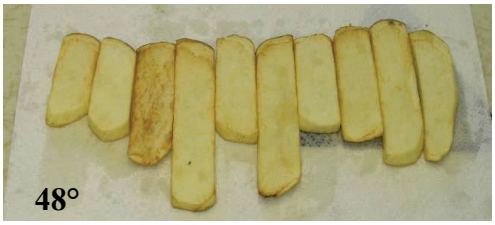
Storage:

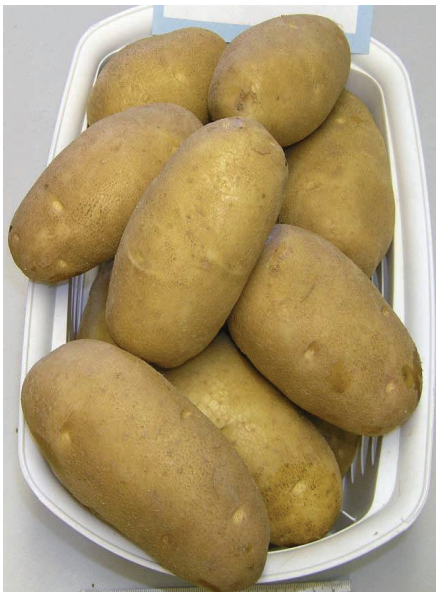
Alpine Russet has a dormancy length equivalent to Russet Burbank. On average, **Alpine Russet** has a dormancy length of 185 days at 42°F, 165 days at 45°F, and 140 days at 48°F. Three year averages indicate that Alpine Russet has a slightly higher susceptibility to Fusarium dry rot than Russet Burbank. Mean dry rot decay (severity) in Alpine Russet was 19% compared to 10% for Russet Burbank. Percent incidence (rot >0%) was slightly higher in **Alpine Russet**, at 67% versus 55% for Russet Burbank. Total percent weight loss in **Alpine Russet** was not significantly different than Russet Burbank at 42 or 45°F, however at 48 °F, it was significant. On average total weight loss in **Alpine Russet** was 5.3, 4.6, and 8.0% compared to Russet Burbank weight loss of 4.4, 3.6, and 5.0% at 42, 45 and 48°F respectively. Glucose concentrations were lower than Russet Burbank across years, temperatures and dates in storage. Peak glucose concentration in **Alpine Russet** occurred at ~190 days after harvest in 2006-07 at 0.12% (fresh weight). Typically glucose concentrations remained below 0.10 % at 42°F in all three years and near or below 0.05% in the 45 and 48°F storages. Sucrose concentrations were higher in **Alpine Russet** at all temperatures and years compared to Russet Burbank. Fry color was less than or equal to a USDA 1 when stored at both 45 and 48 °F. At 42°F, fry color was USDA 2 or less, except in 06-07, between 70 and 180 days after harvest when fry color reached a USDA 3. Mottling, a dark, uneven coloration which can occur in fried products, scored at a mild level at 42°F, and mild to none at 45 and 48°F.

Weaknesses:

Light russet colored skin likely makes Alpine Russet unsuitable for fresh pack.

FRY COLOR RESULTS 02/06





The information contained within this flyer was supplied by researchers of the Northwest Potato Variety Development Program and their collaborators.

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