



# Clearwater Russet

## A new dual purpose russet with high protein and excellent processing qualities

- High % US No 1
- Specific Gravity
- Attractive Tubers
- Fry Color
- High Protein Content
- Bannock Russet x A89152-4

### Disease Ratings

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

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**Clearwater Russet**, known as AOA95154-1 prior to release, is medium-late maturing, with oblong-long tubers that have medium-russet skin. Tubers exhibit excellent fry color out of storage and their attractiveness make this variety suitable for both processing and fresh market usage. It has high specific gravity and is resistant to sugar ends as well as most internal and external tuber defects. **Clearwater Russet** also is notable for having a higher protein content than those of standard potato varieties, with 38% greater concentration than Russet Burbank.



**Clearwater Russet** produces oblong tubers with brown, medium-heavy russet skin. The eyes are shallow in depth and intermediate in number and are evenly distributed. Tuber set is low, and tuber size is medium. Total yields for **Clearwater Russet** ranged from about 92 to 97% of Ranger Russet and 88 to 105% of Russet Burbank in 26 yield trials conducted in eastern Idaho, central and western Idaho, Washington and Oregon. U.S. No. 1 yields for **Clearwater Russet** ranged from 105 to 111% of Ranger Russet in Idaho and Oregon but only 86% of Ranger Russet in Washington. By comparison, U.S. No. 1 yields for **Clearwater Russet** were 47, 25, 51 and 20% higher than Russet Burbank in eastern Idaho, western and central Idaho, Oregon, and Washington, respectively.

In 18 trials grown in Idaho, Oregon, and Washington, average specific gravity and percent solids for **Clearwater Russet** was high, similar to Ranger Russet but substantially higher than Russet Burbank. **Clearwater Russet** also produced fries with much lighter color than either Ranger Russet or Russet Burbank out of 45°F storage.

**Clearwater Russet** has demonstrated less susceptibility to growth cracks and secondary growth than either Ranger Russet or Russet Burbank, particularly under high stress conditions. **Clearwater Russet** is less susceptible to blackspot bruise than Ranger Russet, with bruise susceptibility similar to that of Russet Burbank. Hollow heart susceptibility is also similar to Russet Burbank but greater than Ranger Russet.

### Management

**Important Considerations:** In-row spacing and nitrogen management are crucial to produce a profit making tuber size profile. This work is currently being compiled by the Tri-State Research Team and will be available on the website early Spring 2009.

**Storage:**

The dormancy of **Clearwater Russet** is relatively short, about 60 days shorter than Russet Burbank (RB). At 42°F, **Clearwater Russet** has a dormancy of 85 days, 90 days at 45°F and 110 days at 42°F. **Clearwater Russet** had high susceptibility to *Fusarium* dry rot. The two year means were 30% decay and 73% incidence compared to 11% decay and 48% incidence for RB. Weight loss was higher in **Clearwater Russet** than RB at 42°F (9.2% and 5.6%). At 45 and 48F, there were no significant differences between the cultivars in the two year means and values ranged from 5 to 6% for the total weight loss. In the first year of the study weight loss was significantly higher in **Clearwater Russet** than RB, but in the second year few differences were measured. Percent glucose in storage was very low, <0.05% fresh weight (fwt) at 42, and <0.03% fwt at 45 and 48°F. Percent sucrose was similar in **Clearwater Russet** to RB, values ranged from a high of 0.15% to a low of 0.07% fwt. Stem end fry color remained at ≤ USDA 1 throughout the 9-month storage period at the three temperatures in both storage seasons. 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. This selection performed similar to Premier Russet in storage.

**Weaknesses:**

- Internal Brown Spot (South Columbia Basin)
- Some Hollow Heart

**Other Notes:** Management notes from observations in the Columbia Basin will be available Spring, 2009.



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