



GALENA RUSSET

A High Yielding, Medium to Late French
Fry Processing Variety



SUMMARY

Galena Russet, a medium to late maturing variety, boasts robust early and full-season yields of oblong, medium-russeted tubers with elevated protein content. Resistant to cold sweetening, it maintains low sugar levels and fry color when stored at 42-48°F for six months, retaining superior fry quality. Outperforming Ranger Russet and Russet Burbank, it exhibits superior fry color, uniformity, and post-harvest processing. With a shorter dormancy period compared to Russet Burbank, it's more resistant to PVY, PLRV, and tuber net necrosis but slightly vulnerable to foliar early blight. In full season trials, Galena Russet consistently outyielded standard varieties, averaging 656 cwt/acre compared to 602 cwt/acre for Ranger Russet, 587 cwt/acre for Russet Burbank, and 465 cwt/acre for Russet Norkotah.

Its medium vine produces oblong-long tubers with shallow, evenly distributed eyes, though with medium to low tuber set and larger average size. Across Idaho, Oregon, and Washington trials, Galena Russet surpassed other varieties in total and marketable yields, with 78-88% U.S. No. 1 tubers, especially excelling in producing tubers over 10 oz. except in eastern Idaho against Ranger Russet.

FERTILITY

Galena Russet has a moderate nitrogen requirement but it performs best if you can split the nitrogen applications, putting on about half prior to planting and topdressing the rest before the rows close.

DEFECTS & DISEASE RATINGS

Galena Russet has resistance to growth cracks and second growth similar to that of Russet Norkotah and greater than for Ranger Russet and Russet Burbank. Its resistance to shatter bruise is similar to Ranger Russet, greater than Russet Burbank, but slightly less than Russet Norkotah. Galena Russet exhibited greater resistance to blackspot bruise development than all of the standard varieties evaluated in these trials. Average percent hollow heart incidence for Galena Russet was low, similar to Ranger Russet, but lower than Russet Burbank and Russet Norkotah.

Galena Russet is more resistant to the viruses PVY, and PLRV than Russet Burbank and Ranger Russet, as well as to the expression of net necrosis in the tuber associated with PLRV infection but is slightly more susceptible to foliar early blight. It is slightly more susceptible to Verticillium wilt than Ranger Russet and is very susceptible to PVX, similar to Russet Burbank.

DISEASE RATINGS

MODERATELY RESISTANT

- Net Necrosis
- Common Scab
- PLRV

MODERATELY SUSCEPTIBLE

- Dry Rot
- Soft Rot
- PVY

VERY SUSCEPTIBLE

- PVX



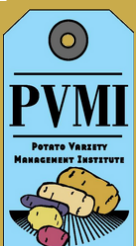
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Resistance to common scab is higher than Ranger Russet and lower than Russet Burbank. Corky ring spot resistance is slightly higher than Ranger Russet and Russet Burbank. All three varieties are susceptible to late blight. Galena Russet exhibited moderate susceptibility to dry rot (*S. sol. var. coeruleum*) as did Ranger Russet and Russet Burbank. However, Galena Russet and Russet Burbank were slightly more susceptible to *F. sambucinum* than Ranger Russet. Soft rot susceptibility for Galena Russet and Ranger Russet was similar, with Russet Burbank being slightly more susceptible.

STORAGE NOTES

Dormancy length of Galena Russet tubers was approximately 20 days shorter than Russet Burbank. Dormancy length at 42°F, was at 145 days after harvest (DAH), at 45°F it was 135 DAH, and at 48°F it was 125 DAH. In Idaho evaluations, Galena Russet exhibited a similar incidence of dry rot infection compared to Russet Burbank in an inoculated test but the mean percent decay was slightly higher. Percent weight loss was significantly higher than RB at 45°F (8.5% vs. 5.9%) but not at 42°F or 48°F. QSR (Quick Service Restaurant) fry processing attributes for Galena Russet were generally better than Russet Burbank for both external and internal texture, with fry color variation and sugar end defects similar to Russet Burbank. Percent glucose was consistently low (<0.10% fresh weight) at all three storage temperatures over the 6 month storage period. Percent sucrose decreased gradually from 0.18% FW at harvest to about 0.10% at the end of the storage period at all three storage temperatures. Stem end fry color was rated ≤ USDA 1 at all three storage temperatures throughout the 6-month storage period. Mottling ranged between none and mild at all three storage temperatures.