

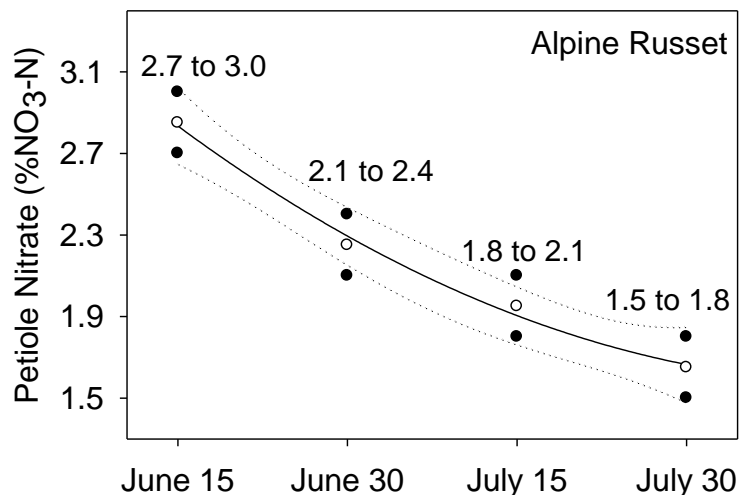
WA Columbia Basin Cultural Management Recommendations for Alpine Russet

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Disclaimer: This may change slightly in near future as research and grower feedback increases.

Alpine Russet has high early yields and resists sugar ends. The extra-long dormancy and processing qualities are better than Russet Burbank. 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. The light skin and irregular tuber shape may not be attractive to the fresh market. In the Columbia Basin, growers should plant 12 inches in-row for an August harvest and 8 – 10 inches for a late harvest. Alpine Russet is mildly susceptible to net necrosis caused by Potato Leaf Roll Virus (PLRV) and aphids should be monitored and controlled as needed. Specific gravity is typically around 1.082. Be aware that late season nitrogen (N) applications can reduce specific gravity by delaying tuber and plant maturity.

Petiole N values will run higher than Russet Burbank in the early season. Specific nitrogen recommendations for Alpine Russet include 125 to 150 lbs/A of available nitrogen (soil residual + applied) in the root zone at emergence. Petiole samples should be collected prior to row closure and continue through the season until late bulking; (see figure below) petiole NO₃% of 27,000 to 30,000 ppm during middle of June with total soil nitrogen above 50 lbs/A maintained until the start of early bulking (approximately 90 DAP). Thereafter, allow depletion of soil nitrogen with a corresponding decline in petiole reading between 18,000 and 21,000 ppm at mid-bulking (approximately 115 DAP), and then between 15,000 and 18,000 ppm at late bulking (approximately 125 DAP). Total season nitrogen (including soil residual) for Alpine Russet should be between 330 and 380 lbs/A in a typical growing season with approximately two-thirds applied through the irrigation water between 60 and 115 DAP. For nutrient recommendations other than N, growers should follow the nutrient management guidelines established for Russet Burbank (Lang et al. 1999). Specific recommendations for organic production have not been established.



Water management is very similar to guidelines for Russet Burbank. Available soil moisture should be maintained at 75% to 85% from full emergence until late bulking; as vines senesce, ASM should be reduced to 60% to 65%.

REFERENCE: Lang, N.S., R.G. Stevens, R.E. Thornton, W.L. Pan, and S. Victory. 1999. Nutrient Management Guide: Central Washington Irrigated Potatoes. Washington State University Experiment Station Extension Bulletin EB1882.