

Clearwater Russet Cultural Management Recommendations for the Columbia Basin of Washington

Washington: Clearwater Russet grown in the Columbia Basin typically produces tubers smaller in size than Ranger Russet and Russet Burbank. To ensure adequate tuber size and processing yield, Clearwater Russet should be planted relatively early using 1.5 to 3.0 oz seed pieces spaced between 10 and 12 inches in-row and allowed to grow > 150 days. Final planting depth should be 8 inches below the soil level in 34 inch-spaced rows.

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%.

Until advance cultural management trials can be conducted for Clearwater Russet, growers should follow the nutrient management guidelines established for Russet Burbank (Lang et al. 1999). Specific nitrogen recommendations for Clearwater 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; petiole NO₃ of 20,000 to 26,000 ppm and total soil nitrogen above 50 lbs/A should be maintained until the start of early bulking (approximately 90 DAP). Thereafter, allow depletion of soil nitrogen with a corresponding decline in petiole reading between 15,000 and 19,000 ppm at mid-bulking (approximately 115 DAP), and then between 8,000 and 12,000 ppm at late bulking (approximately 125 DAP). Total season nitrogen (including soil residual) for Clearwater Russet should be between 330 and 360 lbs/A in a typical growing season with approximately two-thirds applied through the irrigation water between 60 and 115 DAP. Specific recommendations for organic production have not been established.

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.