Teton Russet

A dual purpose, early russet with good yield high protein and Vitamin C

- **Yield & Grade**
- **Early & Late Performance**
- **High Protein and Vitamin C**
- **Excellent Fry Color**
- **Classic Russet x Blazer Russet**

Disease Ratings

Verticillium	**susceptible**
Common Scab	**resistant**
PVY*	**mod susceptible**
PLRV	**mod susceptible**
Net Necrosis	**mod resistant**
Late Blight Foliar	**susceptible**
Late Blight Tuber	**mod susceptible**
Dry Rot	**resistant**
Soft Rot	**susceptible**
Corky Ringspot	**mod resistant**

* PVY symptoms typical

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Teton Russet (A0008-1TE) is a cross between *Blazer Russet* and *Classic Russet* and has been noted as both a fresh market and processing stand-out in the 2009 Potato Cultivar Evaluations compiled by the WSU Potato Research Group. **Teton Russet** has performed well in both early and late trials in several locations in the Pacific Northwest. It out yielded all other clones included in the early trials with a high percent of US Number Ones. Also its combined merit score was significantly higher than all others in the trial including *Ranger*, *Russet Burbank* and *Russet Norkotah*. The tubers are oblong with moderate russet, good skin and shallow eyes. The fry color is light and uniform.

This line can be used either for fresh pack or processing and has an average specific gravity of 1.082. This line shows resistance to dry rot but is soft rot and shatter bruise susceptible. In the Idaho trial there was an incidence of hollow heart and this needs to be managed for.

Important Considerations: Teton Russet typically produces a low tuber set (~ 1 less tuber/plant than R. Burbank and R. Norkotah) and has the potential to produce large tubers. In-row spacing and nitrogen management are crucial to produce a profit maxing tuber size profile. Teton Russet is an early- to mid-harvest variety and is typically finished growing about 130-140 days after planting; this is, however, dependent on the climate and planting date. Yields at 100-110 days after planting are similar or slightly higher than standard Russet Norkotah, but note that the tubers are generally 1-2 oz heavier on average if planted at the same in-row spacing as Russet Norkotah. Teton Russet should be handled as gently as possible to minimize bruising and skinning. Irrigation rates should be gradually reduced during the last couple of weeks prior to vine kill to about 65% ASM to allow tuber hydration to decrease to an intermediate level during skin set. This will also minimize the potential for producing swollen, open lenticels that can provide entry points for disease organisms. To minimize shatter bruise and skinning:

- Complete N fertilizer applications at least 30 days prior to harvest.
- Tubers should be allowed to dry to a moderate moisture level (medium turgidity – not firm or well hydrated but not flaccid where the surface is easily depressed)

• Warm temperatures and moderate soil moisture facilitate dehydrating tubers
• Allow at least 21 days after vine kill prior to harvest
• If possible, irrigate a few days prior to harvest to reduce bruising from clods, etc.
• It is best to harvest tubers when pulp temperature is warm, but not greater than 60°F to minimize disease development

Seed Size: 1.5 to 3 oz
Row Spacing: 34 inches
Planting Depth: 8 inches – top of seed piece to top of hill.
Alternatively, 4 inches below level soil or 2 inches below furrow.

Fresh Market*:
For harvest between early and late-July (~ 90-110 Days After Planting), space Teton Russet at 12 inches in-row. For harvest between early August to early September, plant seed pieces 10 inches apart within the row. For all harvest dates, fertilize as you would for Classic Russet early harvest with 200-250 lbs N/A, including pre-plant soil residual N. Approximately 125-150 lbs N (soil residual + applied) should be available at emergence in the root zone. Apply the remaining N throughout June via overhead irrigation. N should be applied through the irrigation water so that petiole NO_3 is at or above 20,000 ppm and total soil N above 50 lbs/A at 60 DAP (mid June, end of tuber initiation). At approximately 90-100 days after planting (early July, early bulking), petioles should be below 20,000 ppm and soil N should be below 50 lbs/A. Petioles should be allowed to decline at least 30 days prior to harvest with values below 12,000 ppm at late bulking (approx. 125 DAP, end of July). Leaves will curl and start to decline in mid August. Avoid excessive, lush early growth to prevent hollow heart.

Process Market*:
Use fresh market in-row spacing and fertilize recommendations as described above.

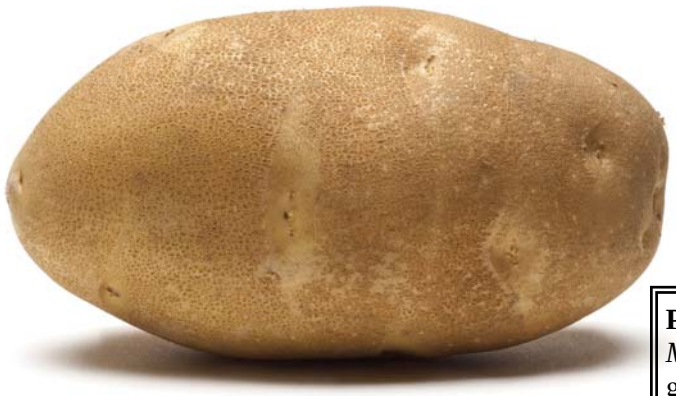
* These recommendations are based on performance of Teton Russet in the Columbia Basin.

Water management:
Irrigate similar to Russet Burbank. Maintain ASM between 65%-85% from full emergence until late bulking (mid-July, August), reduce to 60%-65% as vines start to senesce. Avoid excessive soil moisture from mid to late bulking.

Nutrient Management other than Nitrogen:
Nutrients should be maintained similar to the Russet Burbank recommendations in: 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.

Organic Production:
Specific recommendations have not been established. However, research has suggested that Teton Russet is efficient with Nitrogen and as a result will likely do well under organic production.

Storage Characteristics:
Store at 47 - 48° to avoid sugar development. Teton Russet was tested in the Kimberly Potato Storage Variety Trial for its first year in 2009-10. Results of this first year of testing indicate that dormancy length in Teton Russet is approximately 30-40 days shorter than Russet Burbank, depending upon storage temperature. Teton Russet had a dormancy length in 45°F storage of approximately 105 days as compared to 135 for Russet Burbank. Teton Russet had significantly lower susceptibility to Fusarium dry rot as compared to Russet Burbank. Percent glucose in Teton Russet was generally higher than Russet Burbank at 42 and 45 storage temperatures, but lower than Russet Burbank when stored at 48°F. Fry color values for Teton Russet were dark (≥USDA 2) out of storage at 42 and 45°F. At 48°F, fry color values were USDA 1 – 2 throughout the nine months of storage for Teton Russet, and were lighter than those for Russet Burbank. Teton Russet had a lower incidence of sugar end (darker fry color at the stem end of the tuber) than Russet Burbank. Mean percent weight loss in Teton Russet after nine months of storage was equivalent to that of Russet Burbank at 5.1% (average of three storage temperatures).



Precautions: Do not use *Matrix* as it may result in growth cracks. Teton Russet is not affected by *Metribuzin*.

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