Premier Russet (A93157-6LS)

A dual purpose russet with excellent fry color out of cold storage

- **Fresh & Processing Markets**
- **Yield & Grade**
- **Specific Gravity**
- **Fry Color**
- **Tolerant of Water Stress**
- **Cold Sweetening Resistance**
- **A87149-4 x A88108-7**

Released in 2006, this dual-purpose variety is most notable for its resistance to the accumulation of reducing sugars following long-term storage at temperatures as low as 42 F. ***Premier Russet*** is high yielding and has tubers with high specific gravity and few external defects. It is resistant to PVY^{o}, common and powdery scab, early dying, and is tolerant of water stress. It is also moderately resistant to tuber early blight and soft rot. Weaknesses include susceptibility to blackspot bruise, Fusarium dry rot, and early season hollow heart. ***Premier*** also has short tuber dormancy, but its ability to store at 42 F can help to prolong dormancy.

Planting:
Optimal plant spacing for ***Premier*** in 36-inch wide rows in southeast Idaho is 9-11 inches. Seed should be checked for dry rot potential and treated with an effective fungicide if needed.

Fertility:
The nitrogen requirement has been about 75-80% of Russet Burbank in replicated field trials. Most of the N should be applied during tuber bulking. Petiole nitrate sufficiency levels run about 3,000 to 5,000 ppm higher than Russet Burbank early

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DISEASE

Verticillium	**mod resistant**
Early Blight	**mod resistant**
Common & Powdery Scab	**resistant**
PVY^{O}	**VERY resistant**
PVY^{N}	**mod resistant**
PVY^{N} tuber	**resistant**
Net Necrosis	**mod susceptible**
Late Blight Foliar	**susceptible**
Late Blight Tuber	**mod susceptible**
Dry Rot	**susceptible**
Soft Rot	**mod resistant**
Pink Rot	**susceptible**
Corky Ringspot	**mod susceptible**

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in the season, about the same as Russet Burbank during mid-season and about 2,000-4,000 ppm lower late in the season. Phosphorus requirements for ***Premier*** are 10-20% lower than Russet Burbank.

Irrigation:
Premier has good drought tolerance but soil moisture should be maintained above 65% ASM for optimal yield and quality. To minimize hollow heart susceptibility in southeast Idaho, use a 8-9 inch seed piece spacing, reduce early-season N applications, avoid excessive early season soil moisture and plant later if possible.

Storage:
- Manage harvest and handling to minimize Fusarium dry rot
- Shorter dormancy potato
- Get CIPC on before 85 – 120 days after harvest
- Cure, then ramp to storage temp 42°F
- Weight loss minimized at 45°F

Disease Management:
Premier Russet is susceptible to pink rot. Avoid over-irrigation and treat with an effective fungicide program. Foliar applications of mefenoxam or metalaxyl should be made when the largest tubers are dime-size and then again two weeks later. Mefenoxam/metalaxyl can be applied in-furrow at planting but this has not performed consistently in some areas. Phosphorous acid fungicides are recommended in areas where mefenoxam/metalaxyl resistance is present. Phosphorous acid products should be applied at a rate of 8-10 pt/acre when the largest tubers are dime-sized, and then be repeated on a 14-day schedule for a total of three applications. Post-harvest application of phosphorous acid (12.8 fl oz/ton tubers) can also be effective in reducing pink rot development in storage.

Weaknesses:
- Black spot
- Hollow heart
- Dry rot

Other Notes:
Metribuzin resistance is good at normal application rates.

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

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