

Summit Russet Management Recommendations - Idaho

Released in 2003, Summit Russet is a dual-purpose variety suitable for processing and fresh-pack usage. It has high U.S. No. 1 yields and specific gravity, with tubers having few internal and external defects. Summit Russet also has been rated as having high culinary quality.

Studies on the management of GemStar Russet were conducted primarily in southeastern Idaho and the results of these studies provide growers in Idaho and other regions with information that may be useful in developing management guidelines for their locale.

Seed and Pest Management

Summit Russet planted in 36 inch-wide rows performs well with a seed piece spacing of 8 to 12 inches. It has a very long dormancy that while beneficial in storage, can result in slow emergence following planting. Warming of seed at 50-60F for 3 weeks prior to planting is recommended to hasten emergence. Summit Russet has resistance to Verticillium wilt, tuber early blight, and common scab. It is also moderately resistant to dry rot and tuber net necrosis caused by PLRV. However, its high susceptibility to PVY is a notable weakness. It has good resistance to Meribuzin.

Nutrient Management

In three years of nitrogen fertility trials, Summit Russet produced maximum yields with about 10% less nitrogen than Russet Burbank. The best N use efficiency was achieved when 2/3 of the seasonal N supply was applied pre-plant with the remainder applied during tuber bulking. Petiole nitrate sufficiency levels for Summit Russet are 15,000 to 25,000 ppm from emergence to tuberization, from 14,000 to 23,000 ppm during tuberization, 13,000 to 20,000 ppm during early tuber bulking, 5,000 to 13,000 ppm during late tuber bulking and 2,000 to 8,000 ppm during maturation.

Irrigation Management

Summit Russet has good resistance to internal and external defects caused by water stress but is only moderately resistant to drought with respect to total yield. Therefore, available soil moisture should be maintained between 65 and 80%. Summit Russet has a high level of resistance to blackspot bruise, but is moderately susceptible to hollow heart and shatter bruise.

Storage Management

Summit Russet has longer dormancy than Russet Burbank when stored at temperatures lower than 45°F, but slightly shorter dormancy when stored at 48°F degrees or higher. It can be stored for up to 12 months for processing or tablestock uses. Storage studies have shown that potatoes for processing should be stored at 45 to 48°F. Sprout inhibition may be required after 3 to 5 months of storage.