

CLASSIC RUSSET

AGRONOMY NOTES

Classic Russet – (A95109-1)

Classic Russet is an early to mid-season russet variety that produces high yields and a high percentage of U.S. No. 1 tubers. Although it is not quite as early as Russet Norkotah, it has the ability to bulk more rapidly than Norkotah, producing large tubers relatively early in the growing season. It has attractive tubers and excellent culinary quality which makes it very suitable for the fresh-pack industry and it can also be used as an early processor.

Fertilization

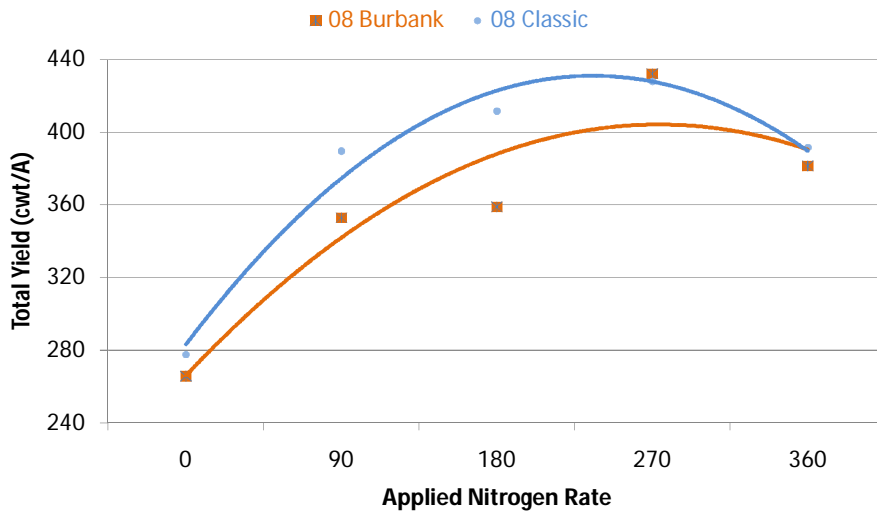
The following graphs present N response data from 2008 for Classic Russet in comparison with Russet Burbank grown on a Declo sandy loam soil at the University of Idaho Aberdeen Research and Extension Center. Trials were grown following grain in the rotation. Row spacing was 36" and in-row spacing was 10.6". Crops were irrigated to maintain available soil moisture above 65%. University of Idaho recommendations were followed for herbicide, pesticide, and fungicide applications.

Nitrogen response studies were conducted using five application rates (0, 90, 180, 270, 360 lb N/acre) with half of total N applied pre-plant with the remainder divided into three equal applications at 2 week intervals starting at tuber initiation. Pre-plant soil nitrate concentrations were 30 lb N/acre.

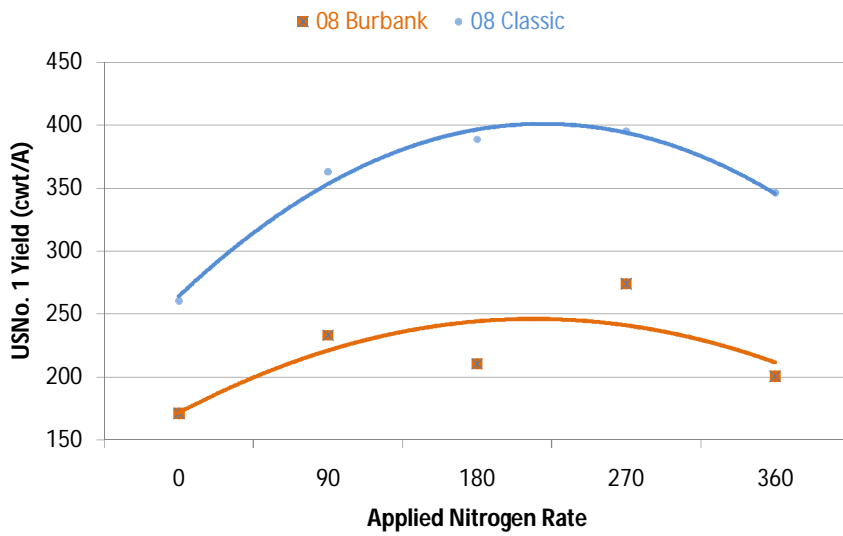
The total seasonal nitrogen requirements for Classic Russet are about 20% less than Russet Burbank for a given amount of yield produced. For production in southern Idaho, total soil plus fertilizer N recommendations should range from about 190 lb N/acre in areas with a 400 cwt/acre yield potential, 220 lb N/acre with a 500 cwt/acre yield potential and 250 lb N/acre in areas with a 600 cwt/acre yield potential. About 125 to 150 lb N/acre (soil plus applied N) should be available at tuber initiation, with the remaining N applied via sprinkler irrigation prior to the last week of July. To promote skin set, N applications should be completed at least 30 days prior to harvest. Nitrogen response studies conducted for two years at Aberdeen, Idaho indicate that petiole nitrate levels for Classic Russet should be about 20,000 ppm at the end of tuber initiation and decrease to 12,000 to 15,000 ppm during mid-bulking and 6,000 to 8,000 ppm during late bulking.

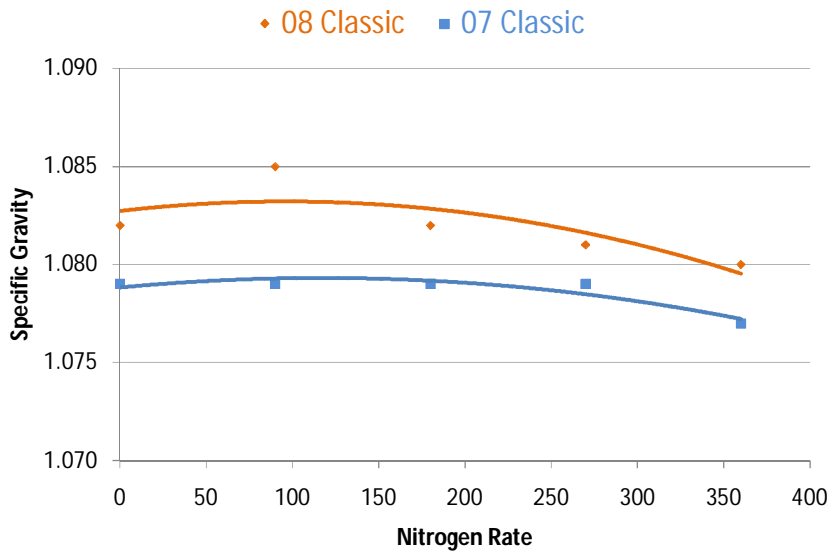
Excessive late season N can lower yield and quality and delay skin maturation, increasing tuber susceptibility to harvest damage and disease. High N levels can also lower specific gravity.

2008 Total Yield Response to N Rate of Classic Russet vs. R Burbank

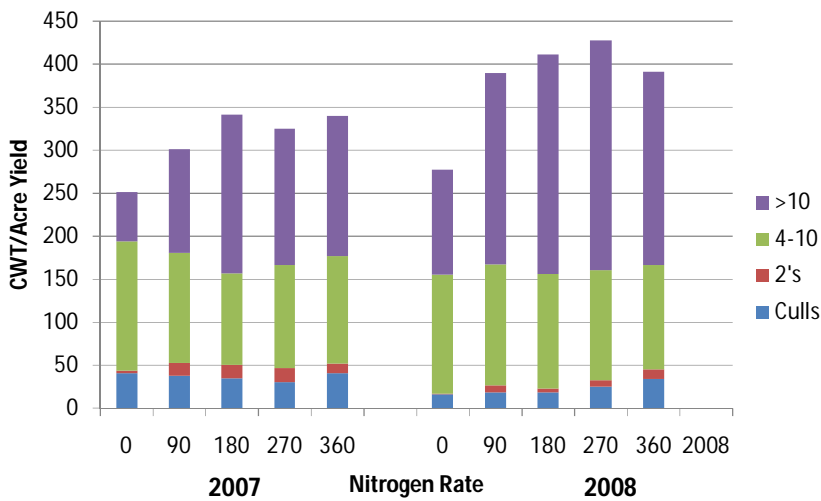


2008 USNo.1 Yield Response to N Rate for Classic Russet vs. R Burbank





2007-2008 Size Distribution - Classic Russet



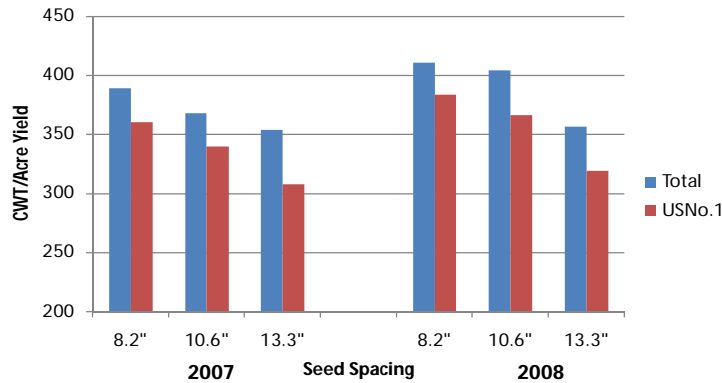
Classic Russet produces large tubers, which can become a greater problem with excess N. Effects of N rate on tuber size distribution shows that in addition to reduced yields, too much N can result in higher percentages of No. 2's and culls.

Spacing

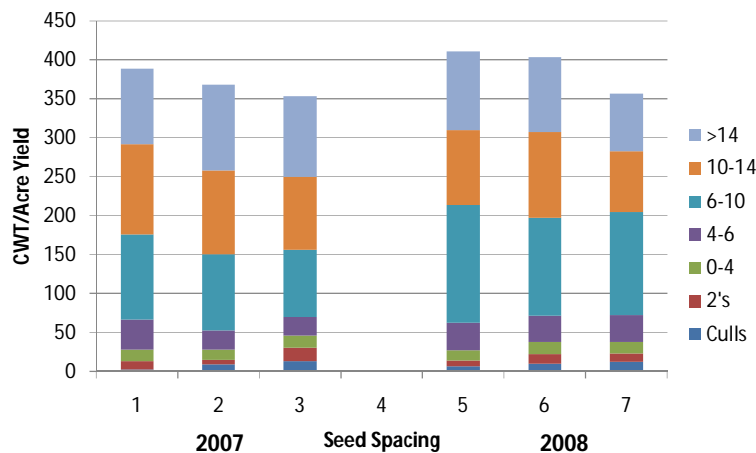
The following graphs present combined 2007 and 2008 data for the effects of seed piece spacing on Classic Russet yield and tuber size distribution. Trials were grown on a sandy silt loam soil at the University of Idaho Aberdeen Research and Extension Center. Row spacing was 36" and seed piece spacing was 8.2, 10.6, or 13.3 inches. Trials were irrigated for optimum yield and University of Idaho recommendations were followed for fertilizer, herbicide, pesticide, and fungicide applications.

The highest yields were consistently obtained with the 8 inch seed piece spacing and yields progressively decreased as spacing increased. Classic Russet typically produces about 1 tuber less per hill than Russet Burbank and as a result, should be planted with an 8-9 inch seed piece spacing to avoid producing extremely large tubers, particularly in areas with long growing seasons. Wider seed piece spacing also tended to decrease yields of 6-10 oz tubers and increase the proportion of culls and No. 2's.

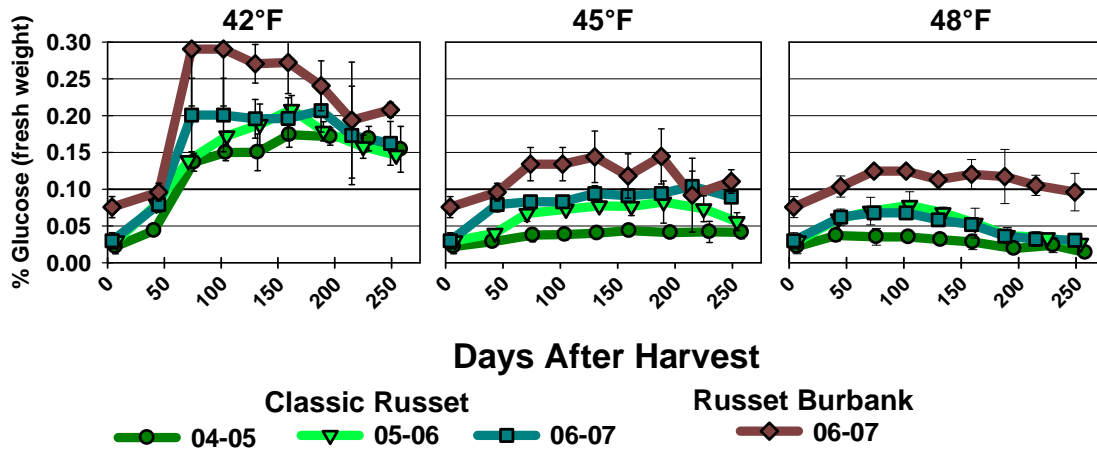
2007-2008 Total & USNo.1 Yield
Classic Russet – Seed Spacing



2007-2008 Size Distribution
Classic Russet – Seed Spacing



Percent glucose in Classic Russet (A95109-1) treated with CIPC and stored at three temperatures in three storage seasons compared to Russet Burbank.



Revised March 5, 2010