

CANELA RUSSET compared to standard Russet Norkotah

Growing Recipe

2/25/08

Summary of Major Advantages: Canela has averaged a higher percentage of US number one tubers than R Norkotah in numerous trials. The deep dormancy allows very late storage. Higher solids allow some limited use as a dual purpose variety for table and processing. There are no virus worries about this variety at all.

Concerns with this variety: Yield can be lower if seed is not warmed enough before planting. Make sure seed is warmed three weeks before planting or it will not come up until July. Some alligator hide and pointy end tubers were seen in test plots in Michigan. Some hollow heart was seen in Wisconsin trials but it was the same as R Norkotah in Michigan trials.

Field Selection: Canela should be placed with medium to late maturing varieties such as Freedom Russet, Silverton and R Norkotah selection #8. It has good vine vigor and grows well on fair to medium quality soils.

Seed handling Characteristics: Canela has a seriously deep dormancy. Seed must be cut and healed at about 50 degrees for three weeks to break dormancy. Single stem or low stem number plants, slow emergence, slow skin set and low yield have been problems if seed is not warmed before planting. Warm until more than just the apical eye is peeping. Seed piece decay is not common in Canela. Splitter seed resulting in 1.75 to 4 ounce seed pieces is best.

Seed Spacing: Usually drop at 12 to 13 inches, the same as R Norkotah standard. Plant Canela closer if you feel you have not broken dormancy and see more than just the apical eye peeping. Seed Spacing: Usually drop at 12 to 13 inches, the same as R Norkotah standard. Canela sets fewer tubers than R Norkotah standard. Final seed depth should be about 6 inches from the bottom of the seed piece to the top of the packed hill.

Herbicides: Canela is tolerant to Sencor and all common potato herbicides.

Insecticides: Platinum at planting is recommended plus foliar insecticides if needed for Potato Beetles. PVY mosaic has not been found to be a problem in Canela but is a terrible problem in R Norkotah. Symptom expression of PVY is very good in Canela.

Emergence: Both varieties emerge uniformly, R Norkotah standard usually comes up before Canela. Very late emergence has been experienced in Canela if the seed has not broken dormancy.

Early Nitrogen: Canela produces a larger and more vigorous vine and should only receive about 50 to 75 lbs/a by 90% emergence. R Norkotah standard needs earlier nitrogen and needs higher amounts. Planting nitrogen for R Norkotah should be about 75 to 100 lb/a by the time 90% of the plants have emerged.

Late Nitrogen and Final Total: Canela only needs about 150 to 200 lbs/a total N or less. Stop nitrogen applications about four weeks before anticipated vine kill date. Comparatively R Norkotah standard needs continuous feeding of nitrogen during early growth, just like FL 1867. In some sandier soils R Norkotah standard vine growth is moderate to weak and susceptible to early blight and Verticillium early die. Grand total for R Norkotah standard in sandy soils should be 200 to 300 lbs/a.

Early Irrigation Scheduling: Canela initiates tubers a little later than standard R Norkotah and has a larger root system so intense irrigation can start a little later. Comparatively R Norkotah standard starts initiating tubers about ten days after emergence so early nitrogen and irrigation are critical.

Late Season Irrigation: Maintain both varieties above 65% soil moisture holding capacity during bulking, which is after 75% vine closure.

Disease Management: Both Maxum and Quadris are recommended to reduce Rhizoctonia. Both varieties are susceptible to late blight. A complete fungicide program is needed. Canela is more tolerant to early blight and much more tolerant to Verticillium early die than standard Norkotah. White mold and vine rot could be a problem in Canela so Endura is advised. Use Ridomil at planting for Pink Rot control if Ridomil insensitive strains are not common. Canela is more tolerant to Pink Rot than R Norkotah.

Vine Kill: Canela takes about seven to ten days longer to reach full tuber bulking compared to R Norkotah. Early die often kills the vines of standard Norkotah before full tuber bulking is finished but not Canela. Vine kill can be scheduled when samples indicate maximum value of carton size tubers. The percentage over ten ounce should be as high as possible (about 30%) without a high percentage of oversize (greater than 15 ounces).

Skin Set: Appearance is critical for all table varieties. Canela growers have experienced serious skinning if late season nitrogen applications occur or if dormant seed emerged very late. Both varieties require about 20 days for skin set. Pre-harvest irrigate about five days before planned harvest so soil moisture can equalize with tuber moisture. Do not allow the soil to completely dry after vine kill. Be willing to wait if skins still slip. The crop can be made worthless if skinned. Once the skin is mature than Canela has a very tough skin.

Storage: Canela harvest temperature range can be 45 to 65 degrees, this will help avoid leak also. Humidity above 95% without free water with fresh air ventilation as many hours as possible is required. Heat above 50 degrees then cool to hold at 42 degrees. Cool slowly so the 1 ½ degree F difference from the bottom of the pile to the top is never violated. Get down to 50 degrees as fast as the weather and the equipment allow without violating the 1 ½ degree differential. Sprout nip within six weeks. Pile height should only be about 16 to 18 feet to avoid pressure bruise. Lower the pile height if late storage is planned. Canela has been stored successfully for packing in July and August. Silver scurf and early blight lesions are less of a problem in Canela. Canela is less susceptible to Pink Rot than R Norkotah. Pink Rot can be a problem in all R Norkotah selections and the standard so Phostrol application at harvest might be advised but are probably not needed for Canela. Canela experience has indicated pressure bruise is about equal to R Norkotah or sometimes significantly less so push lots of humidity especially during the first weeks of storage.