

Manitoba Raspberry Cultivar Evaluation 2005-2007

Final Results



2007 was the last field season for the Manitoba Berry Variety Trials which were started 3 years ago. Special thanks to the growers who participated in these trials on their farms and helped keep the trials up and running. Thank you again to **Blue Diamond Farm, Berry Hill Farm, Kroecker Farms and La Salle Valley Berry Farm.**

Thank you to PFGA, MRAC (ACAAF) and MAFRI for funding and in-kind support of this trial.

Raspberry Cultivars Evaluated

Summer Bearing (Floricanes)

Boyne, Nova, K 81-6, Killarney, Encore, Royalty (purple berry), Heritage, SK Mammoth, K 93-11, K 93-9, Bristol Black (black berry)

Fall Bearing (Primocane)

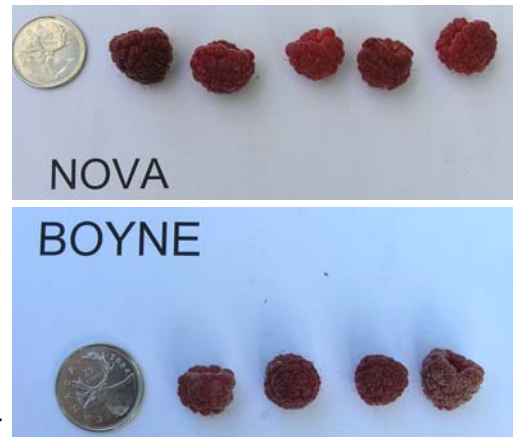
Double Delight, Autumn Britten, Polana, Caroline, Fall Gold (yellow berry), Anne (yellow berry)

Data Collection occurred from 2005-2007 for the primocane cultivars and 2006-2007 for the floricanes cultivars.

Results from the Floricanes (Summer Bearing) Cultivars

Top yield performers from the Floricanes cultivars were , Boyne, Nova, Killarney and Red Mammoth (Table 1, all yield data have been converted into estimated yield in pounds per acre). Highest berry weights were K81-6 (4-5 grams), K93-9 and K93-9 (3.5-4 grams), compare to Boyne (standard) at 2.1 grams (Tables 2). Red mammoth had very uneven berry weights depending on year and location, ranging from very small 1.92 grams to medium 2.95 grams. Reason for this large range in berry weights for Red Mammoth was not determined, but did result in a downgrading in overall fruit quality of the variety. Although Royalty only had medium-low yields, due to its unique purple colour, moderate hardiness and medium-large berry size, was placed on the trial only list.

K81-6 was also placed on the trail only list due to its very large berry size in spite of its fair winter hardiness and medium yields.



Red Mammoth, Boyne, Souris and Killarney are extremely winter hardy in Manitoba, while Nova would be classified as having good winter hardiness, susceptible to tip kill due to occurrence in some years of a late summer/ fall flowering phase. The variety Souris was not tested in this trial, but has performed well in past Manitoba and Prairie variety trials, and was included in the recommended list. Souris, Boyne and Killarney are past releases of the Modern AAFC station.



Manitoba Floricane Raspberry Cultivar Recommendations

Recommended Large Scale Commercial

Boyne
Souris
Nova
Killarney

Recommended Trial only (test small scale on own farm)

K-81-6
Royalty
Red Mammoth



Keys to Successful Summer Bearing Raspberry Production and Higher Yields are: keep rows narrow 12-16 inches, avoid heavy soils, use trellis, fertilize, irrigate in dry years and provide good drainage.



Boyne raspberry plots, Fescue mix grass planted between rows.

Table 1: Raspberry Yields Altona and Winkler Combined 2006-07

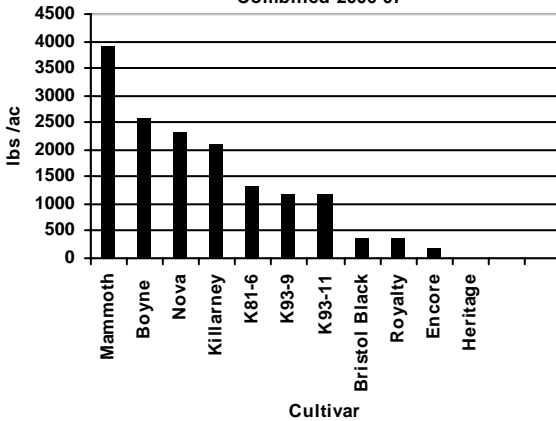
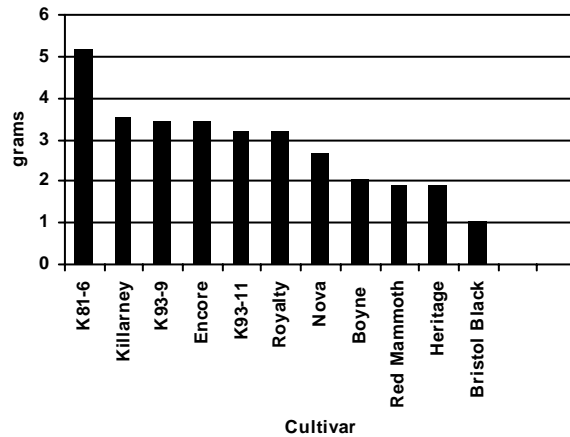


Table 2: Raspberry Berry Weights Altona 2007



Results from the Primocane (Fall Bearing) Cultivar Trial



Overall yields for primocane cultivars were considerably lower than the floricanes, with yields for the top performers in the 1500-700 lbs/acre range (compared to 4000-3000 lbs / acre floricanes). With lower yields and lower returns per acre, primocanes should be a minor component of a raspberry operation. Most marketing of primocanes would be pre-picked sales directly off farm or at farmers markets. The most successful cultivars have to be early maturing types with the bulk of the harvesting completed before September 1 as kill frosts can occur after that date.



Good yields are very dependant on perfect weather conditions occurring to achieve top yields, which can be very difficult obtain in Manitoba.

Autumn Britten and Double Delight had the highest yields consistently over 3 years of yield data, all have very good winter hardiness. All were selected into the trial only list. No varieties could be recommended for large scale commercial planting with the lower yield results overall. The variety Red River was not tested in this trial, but has performed well in past Manitoba and prairie cultivar trials, and was included in the recommended for trial list. Both Red River and Double delight are past releases of Morden AAFC station. The yellow raspberry cultivars, Anne and Fall Gold had uneven yield results but showed moderate-good winter hardiness, its unique yellow colour and very sweet flavour placed them into the trial only list as well.



Double berry formation typical in Double Delight raspberry.

Recommended Primocane Raspberries Cultivars Trial Only (test small scale on own farm) Autumn Britten Double Delight Red River

**Yellow Raspberries (low yielding, test small scale on own farm):
Anne, Fall Gold**

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