

RASPBERRY CULTIVAR TRIALS – 2006 SUMMARY

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Rationale & Objective

Survival and expansion of raspberry production in Alberta is largely dependent upon the availability of adapted cultivars, which are high yielding and produce fruit of superior quality.

In order to assist growers with cultivar selection we established a trial with four floricane and four primocane cultivars, which we believed to have potential in Alberta.

Materials and Method

The trials were planted at the Crop Diversification Centre South (Brooks, AB) on April 6-7, 2004, and were set up in two randomized complete block designs with four replications and single-row 5 metre long plots and with a guard row on each side of the trial. The primocane cultivars were Autumn Bliss, Autumn Britten, Double Delight, and Yellow Summit, whereas the floricane cultivars were Algonquin, Red Mammoth, Red Bounty, and Boyne. The trial was irrigated and maintained following standard recommendations. In 2006 fruit was harvested two times per week from a 2 meter section in the center of each plot.

Results

All cultivars tested performed well and provided reasonable good yields. As expected, the floricane cultivars yielded much higher than the primocanes. The two cultivars from the

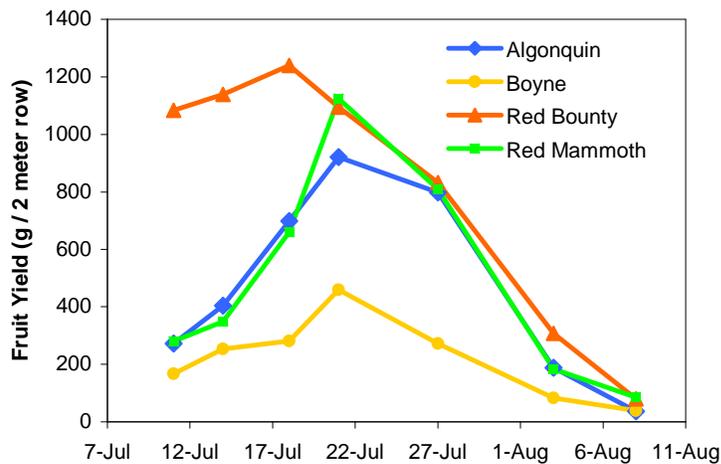
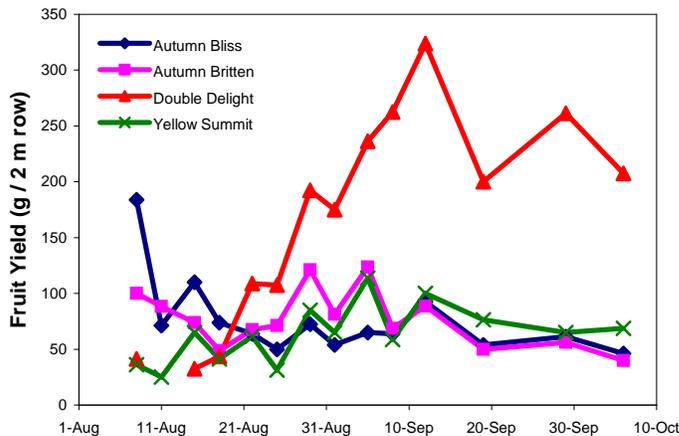


Figure 1. Average fruit production of four floricane raspberry cultivars planted in 2004. Yield is given in grams per 2 metre row section and given as the average of four replications. Ripe fruit was harvested twice a week from July 11 to August 8, 2006.

University of Saskatchewan (Red Bounty and Red Mammoth), had the highest total yield, with 7,222 kg/ha (6,442 lbs/ac) and 4,366 kg/ha (3,894 lbs/ac) respectively. Red Bounty, appears to be an excellent choice for processing. It had by far the highest yield (Fig. 1), the fruit ripened uniformly, and is easily harvested mechanically. Red Mammoth had only slightly higher average yield than Algonquin, but it has much larger and arguably more flavourful fruit. Boyne, which is still one of the more commonly grown cultivars, yielded substantially less, but fruit quality was good.

Fruit on the primocane cultivars ripened as the floricane harvest concluded. The weekly yield was in most cases below 500g, but the harvest was spread out fairly evenly until mid-September. As there was less fruit to harvest we switched to only one harvest per week until a



killing frost at the end of the first week of October. The highest yield was achieved with the cultivar Double Delight. Unlike the other cultivars Double Delight, progressively increased production to reach a peak in mid-September (Fig. 2). The average total yield for Double Delight (2741 kg/ha or 2445 lbs/ac) was more than twice the average yield of Autumn Britten (1,350 kg/ha or 1,204 lbs/ac), it's closest competitor.

Figure 2. Average fruit production of four primocane raspberry cultivars planted in 2004. Yield is given in grams per 2 metre row section and given as the average of four replications. Ripe fruit was harvested twice a week from Aug 8 to Sept. 8, and once per week from Sept. 12 to Oct. 6, 2006.

Conclusion

The recently released floricane varieties from the University of Saskatchewan performed very well, which confirmed results obtained elsewhere. Red Bounty was indeed by far the highest yielding cultivar, which makes it particularly attractive for processing. On the other hand, Red Mammoth, because of its large and flavourfull fruit, would most likely be a good choice for u-pick operations.

Primocane cultivars are ideal to extend the u-pick season way into September or even October. Double Delight, with its relatively large and somewhat soft fruit would be an excellent choice for a u-pick operation. By mid-September it had substantially more fruit per meter of row than any of the other primocane cultivars, which makes it a more attractive choice for u-pickers.

Acknowledgement

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