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## New Primocane Raspberry Experiences and Potentials - Update for Year 2002

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### Part 1: New Primocane Raspberry Varieties and Production Considerations.

*Editor's note: This is the first of a two part series written by former Virginia Tech Extension Specialist, Charlie O'Dell. Charlie has been keeping very busy in retirement growing small fruit and vegetables for his U-Pick operation near Blacksburg. In this segment he has some great insight and practical experience to share with us about new primocane raspberry varieties and production considerations for both new and established growers.*

In this region of SW Virginia, older raspberry cultivars (varieties) such as Heritage are late maturing, often 80% or more of the crop being lost to fall frosts before significant amounts of fruit ripened. Most growers in this area abandoned such attempts to produce late summer - early fall raspberries with older varieties even though they found very high customer acceptance for raspberries in this later part of the growing season. Now that we've had 3 years of harvest experience with these newer selections, it's time to share our results with those who love to grow, eat and market raspberries!

Please take time to "read up" on development of newer primocane varieties. Some, like Autumn Bliss, Polana, Caroline and Josephine, for example, are much earlier ripening than the older Heritage, allowing first harvests to begin in early August, even late July (for Autumn Bliss) in many areas, with harvests from multiple varieties continuing here for 12 weeks or more, into October! Other fine fruit attributes include much larger berry size along with very fine flavor and appearance; features that are all welcomed by growers, consumers, and produce buyers. An exciting new primocane varieties performance test was reported by our Pennsylvania State University colleagues Barbara Goulart and Kathy Demchak from their several years' study in central Pennsylvania. Four years of harvest data was obtained from several new selections before the selections were commercially available, allowing growers over this region to get an early look at new varieties performance in colder areas of this region.<sup>1</sup>

Also, one of the new selections was reported to be even later by some 5 days than Heritage, but to be of very large size and of very high flavor. This new golden colored one will soon be commercially available, named Anne (named by her husband, our own Virginia raspberry breeder/researcher, Dr. Herb Stiles, for his wife, Anne). Interest in such new, flavorful, large fruited, but later maturing varieties, may stimulate research and grower interest in possible use of late season high tunnels to increase and lengthen the fall fruiting season and to make possible profitable yields of new, late season primocane varieties in colder areas. This past summer, Anne began harvests here in late August and continued in full swing until an October freeze finished them, still with many, many green fruit on the canes. However, we were quite happy with the amount of Anne fruit we obtained and, consumer acceptance was outstanding! Growers in warmer areas may find these second-early and later maturing types, including Caroline, Josephine and Anne, to be even better suited to their longer fall growing season since they will ripen after the most intense heat of summer and continue on through late October in warmer areas.

Researchers at Cornell University led by Marvin Pritts and at Rutgers University led by Joe Fiola, working with the late maturing older variety Heritage a few years ago, successfully used crop

covers over the freshly mowed crowns in late winter to speed new primocane emergence and early season growth rate. They used the temperature-warming crop covers for the month of March, sometimes into early April (depending on spring's speed of arrival) to gain 2 weeks or more of earlier harvests compared to uncovered plots. We plan to work with this technique on this new variety Anne. Because it's outstanding size, appearance and flavor, we are drawn to seek ways to make it even more productive in this region of cooler, shorter growing seasons! We could also trellis it and grow it as a summer-bearing type. Perhaps, like experimenting grower in Giles County, Virginia, Mr. Ralph Farley, we'll grow some by each production system in order to have fruit both early and late in the growing season to help satisfy market demand.

You may wish to investigate and trial-plant these new varieties at your farm location. For your planning efforts I have developed the following 15 primocane raspberry planning considerations from our production experience here. Also included is a crop establishment expense costs scenario compiled with the help of Kathy Demchak, Senior Extension Associate, Department of Horticulture, Pennsylvania State University. Note: Please don't try this crop without drip irrigation! Raspberry plants and fruit suffer under moisture stress more than other small fruit crops except blueberries. These crops are especially quickly stressed for moisture under the hot late summer and fall fruiting period for primocane raspberries at the very time it is quite commonly dry in this region. Don't skimp on the drip irrigation!

Thanks to the fine raspberry breeding team of Herb Stiles of Va. Tech, Harry Swartz of University of Maryland, Joe Fiola of Rutgers and Brian Smith of the University of Wisconsin, consumers in this region may soon be able to find locally grown, flavor-packed late summer raspberries. If these new varieties prove to be adaptable to both cooler and warmer areas, growers can begin successful production/marketing of this "new" crop of late season raspberries to our growing hoards of affluent urbanites.

### **Some Primocane Raspberry Considerations**

1. Test plant to determine adaptability of these new varieties to your area, start small.
2. High demand exists for locally grown raspberries, where/how will you market them?
3. Off-farm marketing requires forced-air refrigerated cooling and transport.
4. Distant-shipped only in 1/2 pint containers allows high prices for local sales, U-Picks.
5. For local sales may be picked and marketed in 1-pint containers (for greater sales volume).
6. Drip irrigation required in this region, harvesting August, September, and October.
7. Not readily available in late summer from CA, Mexico, NAFTA, WTO!
8. Raspberry growers in Pa, WV, Northern VA retail fresh-picked at \$3. To \$4. per pint.
9. U-Pick raspberry growers in this same region obtain \$2. Per pint, stores @ 2.50/1/2 pt.
10. A perennial crown, up to 8 or more years of production from 1-time establishment costs.
11. Grower-friendly, easy to manage, annual pruning by sharp mower in late winter.
12. A harvest aid trellis should be installed on each row annually, see costs enclosed.
13. No spring frost risk, blooms in summer, can use lower frost pocket sites.
14. Income can begin the same year from April planting helping recover plant costs.
15. Improved drainage from raised beds provides control of Phytophthora Root Rot: use strawberry bedder, drip tape off-center, 2" deep, rows 9' apart, set plants 2' apart in-row.

Use 90-day biodegradable black plastic mulch for weed control first summer!

1Goulart, B.L. and K. Demchak. 1999. Performance of Primocane Fruiting Red Raspberries. Fruit Varieties Journal 53: 32-40

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