

## European Rootstock Review

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*This article is one in a series of articles written for the Good Fruit Grower Magazine in 2005-2006, reporting on papers given at the 2005 International Society for Horticultural Sciences Cherry Symposium in Bursa, Turkey.*

As in past symposia, scientists at the 5<sup>th</sup> International Cherry Symposium presented numerous papers devoted to cherry rootstock research. I find that it is often difficult and perhaps dangerous to directly transfer rootstock results from one region to another. One reason for this caution are differences in climate and soils that affect tree vigor, survivability and fruit quality, as evidenced by the variability in vigor of Gisela® 6 from the east coast of the US to the west. Another reason is that the goals and priorities of growers vary around the world. For example, for certain conditions, many German growers believe that Gisela 5 is too vigorous. They are looking for a rootstock like Gisela 3 that produces a tree small enough to easily fit under rain covers (Stehr).

Nevertheless, it is possible to glean some information out of these studies that may be useful to growers in the Pacific Northwest. The Rhine Valley is an important fruit production area located in western Germany. The region is characterized by sandy soils with most orchards non-irrigated. It is important to note these characteristics because they will have a substantial affect on rootstock performance. Nevertheless, rootstock work conducted by Mr. Martin Balmer, using 'Regina' and 'Sylvia', is interesting and potentially pertinent to Pacific Northwest growers.

Maxma Delbard® 14 (a patented selection of Maxma 14) is currently the most planted rootstock in this area. Rootstock tests were conducted at two locales. At both locations Gisela 5 had outstanding productivity, as might be anticipated; however, fruit size remained unexpectedly good. Gisela 5 also performed well in replant situations.

Maxma Delbard® 14 had sub-average productivity and average fruit size. In these soils tree size was 30% less than *P. mahaleb*, similar to the French experience, but dissimilar to observations made in the Pacific Northwest. Interestingly, on replant sites, which are not treated prior to planting, vigor was drastically reduced. Maxma Delbard® 14 also showed sensitivity to water-logged soils.

As with Gisela 5, Gisela 6 exhibited high productivity and good fruit size, however a thunderstorm in 2003 selectively uprooted the Gisela 6 trees. Although Pacific Northwest growers have not experienced this dramatic uprooting, there are many reports of trees, grown on Gisela 6 rootstock, beginning to tilt when irrigation precedes a high wind. The German experience is perhaps a caution to Pacific Northwest growers to avoid planting trees on Gisela 6 rootstock in sandy soils.

Reports cited.

Balmer, M. Evaluation of Semi-Dwarfing Rootstocks for sweet Cherry Orchards in the Rhine River Valley.

Stehr, R. Further Experiences with Dwarfing Sweet Cherry Rootstocks in Northern Germany.