Prune Rootstocks for Western Oregon

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Our knowledge of the performance of various prune varieties on the different rootstocks in western Oregon is quite limited. The information presented here has been collected from prune rootstock experiments at the Oregon State University Lewis-Brown Experimental Farm near Corvallis, from the observations of various prune growers, and from the literature. No one rootstock can be recommended, since choice of rootstocks depends upon the orchard site on which they are to be planted.

Although numerous rootstocks for prunes are being evaluated, there are only three about which we know enough to make suggestions for planting. These are Lovell peach seedlings, seedlings of Myrobalan plum, and rooted cuttings of the clonal selection Myrobalan 29-C and larger in diameter. This observation is in agreement with reports from California.

Young prune trees are occasionally attacked by gophers. Reports from California state that gophers prefer plum over peach roots.

Trees on peach roots are less tolerant of wet or poorly-drained soil conditions than those on plum. Also, they are less tolerant of dry soil conditions resulting from drought. Workers in California report that, following a heavy windstorm in which thousands of trees were blown over, French prune trees on peach roots resisted wind pressure a little better than those on Myrobalan seedlings.

Trees on peach roots may be more difficult to establish when replanted in fields where peach roots have grown. This difficulty is reported in many growing areas, particularly in California. Causes of peach replant problems are still not fully understood.

Peach roots may be less successful in fields where oak-root fungus (Armillaria root rot) has built up, since peach roots are generally more susceptible to this disorder than Myrobalan plum. Furthermore, Armillaria root rot spreads more rapidly through dead than through live roots. For this reason an increase in this disease may be observed following the replanting of prunes.
Seedlings of the Myrobalan plum (P. cerasifera) are widely used as rootstocks for prunes, particularly in the eastern United States; however, little is known of the performance of prune trees on Myrobalan roots in Oregon.

Information from California concerning prune rootstocks is based on the performance of varieties other than Italian, such as French or Sugar. Performance of the variety Italian on the various rootstocks may be different. Myrobalan rootstocks sucker freely in some orchard sites.

The Myrobalan plum is easily distinguished from common prune varieties (P. domestica) by its smaller leaves. The leaves are also more ovate and thinner and their margins are more finely serrate.

Trees on Myrobalan plum roots are more tolerant of heavy soils, prolonged wet soil conditions, or poor drainage than are trees on peach. However, even plum roots will not penetrate water-logged soils. Also, they are more tolerant of drouth. Notwithstanding their comparative tolerance to excess soil moisture, Myrobalan-rooted trees when transplanted from the nursery into wet soil in the orchard may fail to start new roots. It is likely that low temperatures and low oxygen content deter new root growth. Myrobalan plum roots are less susceptible than peach roots to oak root fungus (Armillaria root rot) and to crown rot (Phytophthora cankers), but they are not immune.

Dr. L. H. Day of the University of California reports, “It has been noted many times that in soils where a nursery or an orchard has been recently removed, Myrobalan and almond seedlings grow much better than do those of apricot and peach.”

It might be expected that the peach and prune root borer would attack prune orchards on peach roots more severely than those on plum. However, a report from California indicates that prune orchards on Myrobalan root are often as seriously infested as are those on peach. In either case, control of this insect is essential.

Myrobalan 29-C

Myrobalan 29, a selection made from Myrobalan seedlings, was introduced by Gregory Brothers Nursery, Brentwood, California. Originally it was a mixed population of very similar strains, but the better ones, such as Myro 29-C have been selected. The rootstock is produced from stem cuttings.

Very little is known about the performance of trees on this rootstock in Oregon. Some young trees are growing well and just coming into bearing at this time.

Probably it has most of the advantages and disadvantages of Myrobalan seedlings, but in time it may prove to be superior.

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