

## Persimmon Cultivars for Northern Areas

J. C. McDANIEL<sup>1</sup>

Although many seedlings and some grafted American persimmon trees (*Diospyros virginiana* L.) from farther south have been fruiting regularly in Illinois, the cultivars performing best here either originated nearby, or trace back to Illinois parentage. They belong, unless noted otherwise, to the hexaploid (90-chromosome) race.

'Early Golden', selected about 1880 by E. A. Riehl near his Alton, Illinois, nursery appears to be the oldest American persimmon cultivar still propagated, and it has until recently been the most popular. It excels the usual wild persimmon in fruit size, firmness and earliness. Its fruits ordinarily have one or more seeds where pollinated by a compatible tree, but seldom a full complement of 8 per fruit. Like the next three, it can sometimes, but not reliably, be self-pollinated through staminate flowers borne on some of the weaker branches. The 'Early Golden' trees have heavy foliage, and branches which tend toward greater spread than ordinary persimmons. It is adapted to growing and fruiting through most of the U.S.D.A. Plant Hardiness Zone 5. Its season at Urbana, Illinois, is from late September through October.

'Garretson', introduced from Pennsylvania, is by appearance a close descendent of 'Early Golden', with similar large pubescent foliage and the normally truncate, relatively small seeds that distinguish this line of persimmons from most wild trees of this and other areas. It has matured more fully than 'Early Golden' most years in the climate of Geneva, New York. Its

fruit, at Urbana, averages a little smaller than 'Early Golden', but is preferred for flavor and texture by most tasters.

'Killen' was raised from 'Early Golden' seed by the late Joseph Killen of Felton, Delaware, who thought that its pollen parent was *D. kaki*. While it averages slightly larger than 'Early Golden' it shows no evidence of species hybridity. It starts ripening nearly as early as 'Early Golden' and often hangs later.

'Florence' is a selection made at Urbana by Dr. Herbert C. Barrett and J. C. McDaniel from a group of open-pollinated seedlings of 'Killen', its most likely male parent being a seedling tree later named 'William'. It compares favorably with 'Garretson' for flavor and texture, and has the smallest seeds of any of the cultivars in its group. As observed in 1973, some male flowers are sometimes borne on 'Florence'.

'John Rick' also originated at Urbana from a probable 'Killen' x 'William' cross, and was selected by J. C. McDaniel. Fruits, to 2 inches across, are larger than those of 'Early Golden'. It is very attractive and desirable for fresh fruit sales. It is slightly later than 'Early Golden', and has similar flavor and texture, but somewhat larger seeds. Its calyx, smaller and softer than those on other persimmons of this group, is less likely to puncture adjacent fruits in a package.

'California' originated in that state probably as a seedling of 'Early Golden', and was named by the late Harvey Steele, who grafted it at Read-

<sup>1</sup>Assistant Professor, Department of Horticulture, University of Illinois at Urbana-Champaign.

ing, Pennsylvania. It has done well with John Talbott at Linton, Indiana. It strongly resembles 'Early Golden' but seems to run a little smaller and more rounded in shape at Linton.

'Wabash', selected from the wild near Pinkstaff, Lawrence County, Illinois, opens the persimmon season at Urbana by mid-August. Its first ripe fruits are seedless where it is pollinated principally by nearby males of the 60-chromosome race. Its seedless fruits, and even the later ones with seeds, are smaller than those of the cultivars previously discussed, making it less desirable as a commercial persimmon. 'Wabash' fruit flesh is deep red-orange in color and sweet, aromatically flavored. Its season generally ends in September. Unlike most other *D. virginiana* cultivars, which turn yellow, it has foliage which becomes red pigmented before falling.

'Craggs', from near Harrisburg, Illinois, also was selected in the wild. Its foliage also shows some red autumn color. Its October-November fruits often show a red blushed skin over rather light yellow flesh, and are only slightly smaller than those of 'John Rick'. It is one of the very best for eating out of hand, but softer and more difficult to take to market than 'John Rick' or 'Early Golden'.

'Meader' is the name here suggested for what has been called N.H. - P 1. The original tree belongs to Professor E. M. Meader, who germinated some seeds of 'Garretson' at Durham, New Hampshire, and later moved the lone surviving seedling to his farm near Rochester, New Hampshire, where it matures large crops of mostly seedless fruit. A few seeds in the 1970 crop at Rochester suggest that this clone, like 'Early Golden', 'Killen', 'Garretson', and 'Florence' sometimes produces some staminate flowers. Professor George L. Slate reports 'Meader' is so prolific at Geneva that it needs fruit thinning to improve quality. In Illi-

nois its first fruits are larger than 'Garretson' and similar in high quality.

'Penland', of North Carolina origin from an isolated clone in the Blue Ridge Mountains, is hardy at Urbana. It was introduced as "seedless", but it will mature seeds when pollinated by males of its own 60-chromosome race. It is somewhat smaller fruited and less sweet than 'Wabash' (90-chromosome) and in contrast with that cultivar, tends to mature seeded fruit earlier than seedless on the same tree. It is a more slender tree, with finer twigs than the others discussed here.

'Knowles' (chromosome number undetermined) is notable for its consistent very high degree of seedlessness when pollinated by males of both recognized races, and for the unparalleled size (over 13 feet trunk circumference) of its non-suckering original tree that stood until recently in Gibson County, Indiana. Its fruit is too small, soft and late to be of value at Urbana, but it may be of more interest south of Illinois. Seedlings from its rare, open pollinated seeds are being cultured at Urbana for further study.

'Festimoon' originated near Mitchell, Indiana, and is consistently seedless in that state. Its fruits are larger, and firmer than those of 'Knowles', and ripen earlier, in October. It does not taste as sweet as most other cultivars (chromosome number unknown).

'Marion' is probably the correct name for a rather large, fairly late (October-November) ripening persimmon that has often been propagated as 'Miller'. 'Marion' lacks the attractiveness and fresh flavor of several other cultivars, but it is very productive and is considered a good persimmon from which to market fruit or pulp in zone 6b or southward. The other 'Miller' as cultivated at Urbana and in southeast Pennsylvania was one of the favorite market varieties of the late Fayette Etter. At Urbana it is in sea-

son in September, and has a pleasant flavor, although notably less sugary than others of its season. It is smaller fruited and finer textured than 'Marion'.

'Beaver' is a midseason, fairly small fruited persimmon from near Mitchell, Indiana, notable as an ingredient in prize-winning persimmon puddings.

Others which have been tried in Illinois but are not currently recommended for one or more reasons: 'Kansas', 'Josephine', 'Golden Gem', 'Golden Supreme', 'Ennis', 'Fehrman', 'Runkwitz', 'Miles', 'Morris Burton', 'Woolbright', 'Glidewell', 'Ruby', and 'Table Grove'.

The use of grafted staminate persimmons as pollenizers is desirable when the 90-chromosome cultivars are introduced to a new location. 'William', selected at Urbana, is one which produces abundant staminate flowers over a rather long season. John Talbott at Linton, Indiana, grafts unnamed staminate seedlings of 'Early Golden'. One staminate tree seems sufficient to pollinate at least twelve pistillate trees of the same race.

Pollination can sometimes be too efficient with some cultivars, as when

fruiting cultivars are grafted into some branches of a staminate seedling. In this case, or when set immediately adjacent to a large staminate tree (such as 'Early Golden' and 'John Rick') their branches may be so overloaded with fruits that many may not mature properly at the normal season. In native persimmon areas, top-working or grafting on suckers is a good way to get the superior cultivars into bearing quickly. A few, but not too many staminates need be left as pollenizers.

Any available native trees may be used for grafting stocks, but since the 90-chromosome race tends to produce more vigorous seedlings, it is preferred as a seed source for nursery understocks. Seeds of the popular cultivars of the 'Early Golden' family yield at least as good seedlings for understock as do wild midwestern persimmons.

Persimmon seeds can lose their viability through extremes of heat, cold or drying. It is best to extract them from ripe fruits by pressure, then promptly wash clean of pulp, and either plant in fall or hold moist and cold for spring planting. Germination takes place after about a month of soil temperature above 60° F.

## ERRATA: "The 'Spartlet' Pear"

Vol. 27: No. 3, July 1973, Page 61, Fig. 1.

The picture is upside down and the legend should read . . . 'Spartlet' (*bottom* row) and 'Bartlett' (*top* row) . . .