to 85.8%, Babygold 8 from 14.8 to 63.2%, or Maybelle from 31.7 to 80.7% should be noted. It was thought that the size of the crop the previous summer might explain in a large part this variation, but the data do not show this to be so.

Secondly, although there is a positive correlation between bud survival and estimated yield, it was not as high as was expected. The correlation coefficient in 1960-61 was 0.058, in 1961-62—0.429, and in 1962-63—0.089. Some varieties, e.g. Redhaven, Richhaven, Triogem, N. Y. 2622, and N. Y. 2604, apparently have the ability to set fruit with most of the surviving buds, and produce a crop, even though they suffered a high bud mortality during the winter. Other varieties, such as Minn. Sdlg. and VPI 33N, that had a high bud survival, have not produced very heavily.

Little killing back of shoots occurred in the three winters in question, although there was fairly extensive wood injury as evidenced by the prevalence of black heart in wood two years old or older. However, these aspects of winter hardiness were not studied in detail.

Other comparisons of peach blossom bud hardiness have been made by Lamb and Way (4) and Joley and Bradford (3), as well as a report by Campbell and Hadle (1) on tree injury; but these have been reports of injury to varieties following a single severe winter. The observations here reported cover three consecutive test winters, and show the year to year variation in blossom bud survival, so that a more significant rating of varietal bud hardiness is obtained. The variation in results from year to year indicate the complexity of this one phase of "hardiness." Edgerton (2) showed the effects of thinning, nitrogen fertilization, and other cultural practices on blossom bud survival, which could influence varietal "hardiness" ratings as given here.

It is likely that differences in mean survival such as NC 3, 80.6%, and Cardinal, 4.5%, are largely the result of the genetic make-up of these varieties. Differences such as these would seem to be of sufficient magnitude to make a program of breeding for hardy peaches worthwhile.

Literature Cited

1. Campbell, R. W. and F. B. Hadle. 1960. Winter injury to peaches and grapes. Am. Soc. Hort. Sci. 76: 332-337.
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3. Joley, L. E. and F. C. Bradford. 1943. Variations in blossom hardiness within a hardy group of peaches. Am. Soc. Hort. Sci. 43: 79-83.
4. Lamb, R. C. and R. D. Way. 1950. Farm Research XVI: 3:3.

Pears for Massachusetts

Among the pear varieties recommended by J. F. Anderson, of the University of Massachusetts in Fruit Notes for growers in his state are those commonly grown in the East, such as Bartlett, Clapp Favorite, Bosc. However, he also recommends for trail, several less common ones. One, *Early Seckel*, he describes as a seedling of Seckel, with fruit of good flavor, that keeps well for an early pear. It resembles its parent in coloring, but is larger, with a more distinct neck. Tree is vigorous, productive, and medium in size.

Devoe is an attractive pear with a bright red blush over a clear yellow ground color, and good quality. Tree is vigorous and productive.

Dumont is a medium to large, late-ripening pear of very good quality. It is obtuse-pyriform in shape, and has firm, juicy flesh. Tree is vigorous and productive.