

Reviews and Abstracts

The Bluehaven and Northland Blueberry Varieties. By Stanley Johnston and J. E. Moulton. Mich. State Univ. Quart. Bul., Vol. 50 No. 1, Aug. 1967, p. 46-49.

Bluehaven and Northland are the first blueberry introductions resulting from a breeding project that was initiated at the South Haven Experiment Station in 1925.

Bluehaven (Berkley x 19-H) is a vigorous, hardy, productive, upright highbush type plant (5 ft. high when mature), which ripens its fruit with Bluecrop, about July 25 at South Haven.

The berry is large, round, light blue, quite firm, has a very small, dry picking scar, and excellent flavor. And because the fruit retain their quality well on the bush, even after they are ripe, they can be picked over a four to six week period. The fruit tend to ripen together, and can be harvested in two pickings.

Bluehaven is recommended for any area where the highbush blueberry thrives.

Northland (Berkley x 19-H) looks more like a highbush blueberry than does Bluehaven. The plant is very productive and hardy, 4 ft. high at maturity, and moderately spreading. The berries of Northland are round, medium blue, medium in size and firmness, and good in flavor. The picking scar is small and dry.

The bush can be harvested with small machines, provided that the lower branches are removed each year. Its hardiness, very early ripening season (July 10 at South Haven), low height, the pliability of its branches, which enables the bush to resist breakage under the weight of heavy snow, make Northland well adapted to northern Michigan.

Both Northland and Bluehaven

have withstood winter temperatures as low as -24° F, and have yielded well in spite of -17° F, May 10, 1966, when blossoms were partially open.

Plants cannot be bought from Michigan State University, but will be available from Michigan nurseries in 1968.—G. M. Kessler

Introduction to Plant Breeding. 1967.

By F. N. Briggs and P. F. Knowles. Rheinhold Publishing Corporation, New York. 426 pages. \$12.50.

While the evolving science of plant breeding has contributed spectacularly to the efficiency in crop production over the past 100 years, the next century will impose unprecedented demands on plant breeders, if the population of the world continues to increase at its present rate. Not only the quantity but the quality of food and other plant products must be improved. The opportunities for careers in this field are increasing and challenging. It is in this stimulating vein that the authors begin their book with a chapter entitled "Perspectives in Plant Breeding."

This text was intended primarily for use in a college course in plant breeding by advanced undergraduate students who have had courses in general botany and genetics. Anyone, however, with an interest in crop improvement and some knowledge of biology and genetics, will find it a valuable book.

The emphasis is on breeding principles rather than individual crops. Because many of basic principles can be well illustrated by reference to research with wheat as representative of self-pollinated crops and corn for cross pollinated crops, methods used with these crops are discussed in some detail. Where appropriate, examples from horticultural crops are used to explain certain principles. Those in-

terested in the breeding of vegetables, ornamentals, and fruits might find the book more stimulating if more illustrations had been drawn from research on these crops.

The book is written in a clear style with concise "résumés" at the end of each chapter. Ample reference is made to the literature. Helpful diagrams are used freely to illustrate methods described in the text.—*J. Moulton, Mich. State University.*

Prunus Hybrids, Selections and Cultivars, at the University of Minnesota Fruit Breeding Farm. 1967. By E. T. Andersen and T. S. Weir, Univ. Minn. Agr. Exp. Sta. Tech. Bul. 252. 49 pages.

Hybrids, selections and cultivars of apricot, cherry and plum which have been used in breeding, or have resulted from the breeding program of the Minnesota Fruit Breeding Farm at Exelsior, are described. Both parents and selections were selected for their hardiness mainly, although fruit size and quality were of course important objectives as well.

The major portion of this bulletin is devoted to brief descriptions and illustrations of the hybrids and cultivars.

The *Prunus* breeding work at the Breeding Farm began in 1907, when it was first established. The greatest success has been achieved with plums, by crossing hardy, indigenous, poor quality species with less hardy high quality European and Oriental cultivars. Because the plum hybrids have usually been self and cross-sterile, only fair in dessert quality and poor for culinary use, and rather susceptible to early frost damage, their usefulness has been limited to areas where extreme hardiness is important.

Hardy apricot introductions Moon-gold and Sungold have been obtained by crossing selections of the manchurian apricot with existing commercial varieties.

Sour cherries with improved hardiness (Meteor and Northstar) have been developed by combining the hardiness of certain species with the high fruit quality and size of highly selected forms.

Efforts to develop peaches or sweet cherries hardy enough for Minnesota have until now been unsuccessful. Hybrids of wild Norwegian mazzard cherry and commercial sweet cherry cultivars have been hardy enough, but poor in fruit size and quality. *Prunus davidiana* x *P. persica* hybrids have had fair fruit quality, but have not been hardy enough. Peach x plum hybrids have usually been sterile, weak and tender.—*G. M. Kessler*

Propagating Fruit Trees in New York. 1967. By R. D. Way, F. G. Dennis and R. M. Gilmer. N. Y. Agr. Exp. Sta. Bul. 817. 34 pages.

All aspects of deciduous fruit tree propagation, as practiced today in northeastern United States, are described. The common seedling fruit rootstocks, problems connected with their use, and seed treatment and germination are discussed briefly.

The various techniques for vegetatively propagating clonal rootstocks are described and illustrated, including rooting of both soft and hardwood cuttings, as well as mound layering or stooling.

The authors very effectively describe budding and grafting procedures commonly used in establishing scion varieties on rootstocks and in topworking older trees.

Incompatibility between stock and scion, the use of interstems, and the problem of viruses in nursery propagation are also discussed briefly.

It would have been helpful if the authors had included a list of references for the reader who would like to delve more deeply into specific aspects of fruit tree propagation.—*G. M. Kessler*