

a pothole on the neighboring farm. This last one has the same distinct glossiness of leaf as the Manitoba 37 and, like it, is very disease resistant, ripening with the earliest. These selections are being used in crosses.

Nels Hansen, while at South Dakota State University at Brookings, did some grape breeding, using Beta, a wild grape from Fort Pierre, South Dakota, and a wild grape collected at Bismark, North Dakota as hardy adaptive parents, crossing them with named varieties from the eastern United States. He named 32 of the seedlings from his crosses,¹ and I have used two of them in breeding. First used was Mandan (Wilder X N.D. wild) X Red Amber. Bearing vines of the seedlings from this cross were all so small in cluster size that none were propagated. In 1981, I crossed my Kay Gray with Eona (Lady Washington X Beta). These young seedlings have not as yet fruited. Kay Gray was grown from open-pollinated seed of my 217 with the plant from which the seed was taken, growing next to Hansen's Onaka, most likely its pollen parent.

Byron Johnson, a private breeder from Cincinnati, Ohio, has also used one of Hansen's grapes in breeding. It is Osbu (Beta X Agawam). He

crossed it with Baco Noir and has named one of the seedlings Kee-Wah-Din. This past season I also used Kee-Wah-Din on my 2-4-7.

Dr. Ron Peterson has continued the grape breeding at South Dakota State University. However, his work is based on still different wild *Riparia* clones. These he found in eastern Montana, where temperatures, especially in winter, tend to fluctuate more widely than here, and there being generally not much snow. This is also the case at Brookings. He has to date named one plant from his work. It is Valiant (wild *Riparia* X Fredonia), and it is rated even more winter hardy than Beta. These Montana *Riparia* are perhaps superior to Wisconsin and eastern Minnesota kinds in their adaption to open winters with great variance in temperature.

Here we have, then, a very wide base for continued grape breeding to achieve winter-hardy, adaptive varieties of high fruit quality for both table and wine. I believe that by intercrossing these hybrid lines from several superior wild *Riparia* clones, the future of grape growing in areas of very cold winter climate is, indeed, very bright.

Literature Cited

1. Nels Hansen, *South Dakota Bulletin*, 224.

BOOK REVIEW

Persimmon Culture in New Zealand.

Hirotooshi Kitagawa and Paul G. Glucina. Science Information Publishing Centre, P. O. Box 9741, Wellington, New Zealand. DSIR Information Series No. 159, 1984, 74 pages. Price NZ \$11.95 plus \$.80 surface postage.

This excellent paperback book contains color photographs of the important cultivars of Japan, New Zealand and other countries. Rootstocks, propagation methods, shoot growth, flowering, pollination and fruit development are clearly described. A significant portion of the book describes

orchard management of persimmons including site selection, soils, spacing, training, pruning, potential yields, nutrition and important insect and disease pests. Harvesting, storage and processing methods are covered including the effects of temperature on storage and shelf life. The causes and techniques used to remove astringency are covered in some detail. The use of 69 beautiful color photographs throughout this book enhance the clearly written text and lead to a good understanding of persimmon culture.

—D. C. Ferree