on poorly drained heavy soils. The soils which seem most favorable for the Canby are deep, loose, open-textured and well drained. However, its growth may be undesirable, in some instances, even on the better soils. It is suggested, therefore, that trial plantings be made only under the most favorable conditions.

Further information on the Canby may be obtained from the Oregon Agricultural Experiment Station, Corvallis, Oregon. Neither the Bureau of Plant Industry nor the Oregon Agricultural Experiment Station has plants of this variety for sale. However, plants can be obtained from the following growers:

Ross Clapp, Box 474, Sandy, Oregon.

Harold Johnson, Route 1, Colton, Oregon.

Otto Nelson, Route 1, Box 114, Aumsville, Oregon.

Patterson Bros., Route 1, Clackamas, Oregon.

T. C. Hendricks, Route 2, Boring, Oregon.

The Genetics and Breeding of Fruit Trees

The following quotation is the author's summary taken from a paper presented by M. B. Crane in 1952 at the 13th International Horticultural Congress in London:

"Breeding experiments with fruit trees have been mainly carried out in the search for new forms of commercial value, and usually the families raised for this purpose have been small. Large families are, however, desirable both for practical results and for genetic study. Their genetic complexity, maintained by vegetative reproduction, and the length of time which elapses from seed to maturity and from one generation to another, make the breeding of fruit trees prolonged. But apart from this the impact of genetics on fruit tree breeding has not been so profound as expected by early geneticists. This is mainly because their most important characters, such as resistance to pests and diseases, size, shape, colour and quality of fruit, are quantitatively inherited and our knowledge of the inheritance of such characters has been limited. In the diploid fruits, many characters are discontinuous and simply inherited, but as a rule, even in these, the inheritance of those characters which go to make up fruit quality is complex. In the polyploid fruits continuous variation is almost the rule, and results from the cumulative action of a number of genes. Study of the inheritance of such characters, polygenic characters as Mather has called them, is further complicated by variability being dependent on both genotype and environment; in fruit trees, environment both natural and cultural such as the use of different rootstocks, etc., has profound effects. With such characters as size and shape of fruit it is common to find in the progeny a pronounced shift towards the characters of the wild type. Although selection for desirable characters in fruits has been going on for centuries, it has been much slower than in crops normally raised from seed, and in some ways it has been further impeded by vegetative reproduction."