

Disastrous hailstorms on 11th and 13th February, 1950, caused major damage to maturing crops at Hastings, Hawke's Bay. The estimated total loss was 210,000 bushels of apples and 22,000 bushels of pears. In addition, about 93,000 bushels of apples and 4,000 bushels of pears suffered damage by hail, resulting in a lowering of grade.

The area planted in apple and pear orchards showed an increase of 93 acres during the year, apples accounting for 68 acres. More than half the new orchards, including both apples and pears, were planted in the Hawke's Bay district. There was no material change in the quince acreage.

A fairly considerable expansion of pip-fruit planting is expected in some districts in the near future. Development for ex-servicemen of the Motukawa Block in Marlborough will include the planting of 140 acres in apples. Additions to the present orchard area are also expected in Hawke's Bay, where planting is making steady progress, in Nelson, and to a less extent in the Auckland district.

The rate of replacement of casualties and unthrifty trees in established orchards is also rising steadily with the increasing supply of nursery trees on vigorous Malling rootstocks. Apple- and pear-crop statistics are included in the appendix on pages 127 and 128.

With the exception of a portion of the Central Otago district, throughout the country pip-fruit orchards are in better condition than for some years past. The general healthy tone of the industry, especially in Hawke's Bay and Nelson, is reflected in the increase in purchases of new tractors, spraying machinery, and fruit-graders and in the erection of new packing-sheds and the installation of orchard cool stores.

The trend in Nelson and Hawke's Bay toward replacement of stationary spraying outfits by mobile sprayers continues. Mobile plants include a number of speed sprayers operated on the air-blast principle; chief advantages of these machines are rapid coverage of orchards and one-man operation of both traction and spraying.

In Marlborough and some orchards in Central Otago, principally at Roxburgh, a factor limiting production is the high cost of irrigation equipment.

A shortage of labour, especially of experienced workers, still exists around Auckland, in Hamilton, Wairarapa, Christchurch, and in the Nelson area of the Nelson district. In Auckland the problem is aggravated by lack of accommodation on orchards.

*Pip-fruit Diseases.*—With the increasing use of new insecticides toxic to some pests and to the natural enemies of others, control of red mite was again a major problem in Auckland orchards. This pest was also troublesome in Nelson, principally at Motueka, and in Canterbury. Improved control is expected in the near future as a result of current investigations by the Department of Scientific and Industrial Research and observations in the field by officers of the Department of Agriculture.

Woolly aphid was more in evidence this year in the Nelson area. Spraying may become necessary to keep this pest in check.

Pear-leaf blister mite was prevalent in the Central Otago district, mainly at Roxburgh.

In Nelson, control of late black spot with standard fungicides was difficult on Delicious, Granny Smith, and Golden Delicious apples, but new therapeutants under trial by the Department of Scientific and Industrial Research show promise.

Die-back of reworked apple-trees caused by *Coriulus versicolor* was still a problem in the Auckland district and to a less extent in Marlborough.

Late in the year fireblight in pears and quinces gave concern in Nelson. As this disease is hindering the establishment of young quince-trees, the possibility of obtaining more resistant varieties will be explored.

Green crinkle of apples increased during the year in Nelson and was also fairly widespread in Mapua. The variety chiefly affected was Granny Smith.

Diseases of this nature remain of major importance as the chief cause of mortality of pip-fruit trees, especially apples.