

HORTICULTURE

Niagara Fruit Growers' Meet

The Niagara Peninsula Fruit Growers' Association, with which was amalgamated recently the Southern Ontario Fruit Growers' Association, held a series of meetings last week at Grimsby and St. Catharines. The value of uniting the strength and forces of the two organizations, was evidenced by the large attendance at the meetings, the harmony and goodwill that prevailed, and the predictions of future successes that emanated from the speakers, and those that took part in the discussions.

The association was fortunate in securing a number of practical and able speakers for the meetings. Mr. J. H. Hale, of South Glastonbury, Conn., who owns and operates immense orchards in that state, and in Georgia, and who is known as the "peach king" of the United States, delivered addresses on a number of topics, and gave valuable advice to the growers of tender fruits. In his own peculiar, happy, forceful style, he captivated the audience, and made many friends. Mr. W. G. Farnsworth, Waterville, Ohio, was equally practical and interesting in his talks on orchard management, and the culture of small

fruits. Mr. W. T. Macoun, of the Central Experimental Farm, Ottawa, and Prof. H. L. Hutt, of the Ontario Agricultural College, Guelph, are well known to the fruit growers of the district, and imparted much valuable information in the addresses that they delivered.

The sessions were presided over by the president, Mr. W. H. Bunting, of St. Catharines. In a few opening remarks he congratulated the growers on being united as a body from Hamilton to the Niagara River. By united effort the association would be in a position to deal with questions that are beyond the powers of the individual. Mr. Bunting referred to the rapid strides that fruit growing is making, and pointed out the significant fact that, while much progress already has been made, the industry now is entering upon an era of prosperity that has not yet been paralleled.

MANAGEMENT OF SOILS

At one of the meetings in Grimsby, Mr. Farnsworth dealt with the management of soils. The address contained valuable information, for the general farmer, as well as the orchardist. Quantity and quality of fruits depends largely on an abundance of moisture in the soil, said Mr. Farnsworth. The various forms of moisture in the soil, and the conditions that control its conservation, were mentioned. To receive large

quantities of moisture in the form of rain and snow, the soil should be made open and porous. It must be drained well to get rid of surface and surplus moisture. This should be done because plants require warmth and air, as well as moisture. An excess of moisture excludes warmth and air. Moisture has two main purposes in the soil, as it affects plant growth; namely, it acts as a carrier of plant food, and aids in breaking down unavailable plant materials.

Plowing is a more important operation in soil management than most farmers think. Moisture exists in one form as a film around soil particles. Plowing breaks up the large particles, and increases the surfaces that are exposed for attracting moisture. The soil should be deeply plowed, if cold sub-soil is not too near the surface.

A potent factor in holding moisture in the soil is vegetable matter or humus. For this reason plenty of vegetable matter should be plowed in, in the form of green crops. Cover crops should be grown in orchards. They should be plowed under as early in spring as possible to prevent loss of moisture through transpiration and assimilation by the crops should it open to grow. On gravelly and sandy soil, vegetable matter will fill the open spaces that occur between the particles in such soils; in heavy soils, it improves the texture by making them more open.

Mr. Farnsworth said also that good tillage plays an important part in controlling moisture. Rolling should be practised to compact the soil, so that water will rise easily by capillary attraction. A light harrow attached behind the roller will prevent a shallow surface mulch to prevent the escape of moisture to the air. Tillage also prevents loss of moisture through appropriation and transpiration by weeds. Tillage should be thorough and incessant. Other addresses of Mr. Farnsworth, and those of Messrs. Hale, Macoun and Hutt, will be found in future issues.

Spraying for Scale

Spraying for San Jose Scale, was discussed by Mr. W. G. Farnsworth, of Waterville, Ohio. Mr. J. H. Hale, of South Glastonbury, Conn., and others, at the convention of the Niagara Peninsula Fruit Growers' Association, held last week. Mr. Farnsworth re-

ferred to what is being done in Ohio. He said that thousands of trees in that state have been ruined by the use of crude petroleum. The best material for combatting scale is the lime-sulphur wash. This mixture not only kills the scale, but it also destroys all fungi on the trees, which, in itself will pay for the expense of application. Best results have been secured by not using salt in the mixture, as was first advised.

When speaking of the seriousness of the pest, Mr. Farnsworth pointed out that scale produces three or four broods in a season, 300 to 600 insects in a brood. A little calculation will show the immense increase in numbers that occurs in a very short time.

The tank used for boiling by Mr. Farnsworth is elevated eight feet. A working pressure of about 100 pounds is used when spraying. Spraying should be practised every year to see roughly whether scale is present or not. The mixture invigorates the tree. Mr. Farnsworth stated his opinion to be that only lime and sulphur can be used with safety on peach trees. Boiling should be done properly. When boiled to the green stage the mixture is injured. The coffee color is proper.

Mr. Hale said that while oils are valuable for killing scale, the lime-sulphur wash is the better for all purposes. It acts both as a fungicide and as an insecticide. He has had best results by using oil one year, and lime-sulphur the next. In some experiments conducted by Mr. Hale with home made miscible oils excellent results have been secured at comparatively small cost.

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