

the agents of the organization in the various localities to ask the members to stop digging. He shipped 22 cars and held the remaining 13 for two days, when they were sold profitably and the market sustained. This organization has increased prices all around and has made the local buyers come up. In the year's work, notwithstanding some mistakes, drawbacks and losses, the receipts increased wonderfully. Potatoes and apples are handled chiefly. These are distributed where the demand is, regardless of nearness to market.

SULPHUR SPRAYS.

One of the most important subjects dealt with by the society was "Sulphur Sprays." Various members discussed it. One of the most valuable papers was contributed by Mr. W. M. Scott, Washington, D.C. This was read by the secretary in the absence of the author. Mr. Scott pointed out that the self-boiled lime-sulphur will soon become almost, if not quite, as indispensable to the peach grower as Bordeaux mixture is to the apple grower. The main reference of the paper was to the use of the lime-sulphur as a summer spray. The results of experiments conducted by Mr. Scott and his assistants this year, in the Hale orchards of Georgia, increased the yield of merchantable fruit by 100 per cent.

In fighting the brown rot the curculio must also be controlled. This insect punctures the skin and admits the fungus in spite of all spraying. The self-boiled lime-sulphur in combination with arsenate of lead is a complete remedy for the curculio, the brown rot and the peach scab.

The writer showed by examples that sprayed fruit brings the highest prices. The difference in market value was due to the fact that the sprayed fruit showed less rot, was more highly colored, and had a better appearance in all respects than the unsprayed fruit.

If the self-boiled lime-sulphur is properly prepared there is no danger of injury to the fruit or foliage; even if carelessly prepared, the danger is not great. There is some danger of staining the fruit if the mixture is applied within three weeks of the time of ripening. To get best results give a light uniform coating in a fine spray.

Time of application: 1, about the time the calices (or shucks) are shedding, spray with arsenate of lead at the rate of 2 lbs., to 50 gals of water. As this is too early for both scab and brown rot, the lime-sulphur mixture is not necessary. 2, Two weeks later or about one month after petals drop, spray with 8-8-50 self-boiled lime-sulphur, and 2 lbs. of arsenate of lead. 3, About one month before the fruit ripens, spray with 8-8-50 self-boiled lime-sulphur, omitting the poison.

[Note.—It is presumed that the "50" refers to gallons in wine measure, which is equivalent to 40 gallons, Imperial, the measure used in Canada.—Editor.]

In orchards where the curculio is not omitted. The best treatment in that case would be to spray the trees with the lime-sulphur a month after petals fall, a month before fruit will ripen, and at a period about half way between those dates. Early maturing varieties will require but two sprayings, except in wet seasons when three treatments will be required.

For scab or black spot alone, one application of lime-sulphur about one month after the petals drop, will prevent most of the infections. In most cases, however, a second application would probably pay.

In a discussion that followed Mr. Scott's paper, Prof. J. P. Stewart, State College, Pa., told of serious cases of burning that were due to this combination. He had used the arsenate of lead with the lime-sulphur.

He found that the adhesive quality of the arsenate is lost when combined with the ordinary lime-sulphur. The arsenate of lead, according to Professor Stewart, costs six times more when applied this way than when applied in other mixtures. Dr. Fletcher stated that the diluted factory-boiled lime-sulphur, would soon be the standard summer spray. He said that arsenate of lead used with this gave results—*worm free fruit*—and that is all that is wanted. The first application is made immediately after the blossoms drop, the second two weeks later, and the third a month later. A lively discussion took place on the use of arsenate of lead in sulphur sprays and opinion was divided.

MISCELLANEOUS.

In addition to the foregoing there were many other addresses and discussions of equal importance. Some of those that were of particular interest to Canadian fruit growers and which will be reported in later issues, are: "Little peach," M. B. Waite, of Washington, D.C.; "Controlling Codling Moth," L. Caesar, O. A. C., Guelph; "Influence of Blighted Pear Trees in Apple Orchards," J. A. Burton, Orleans, Ind.; "A Study of Varieties," Prof. W. N. Hutt, Raleigh, N. C., and "Status of Grape Growing in Canada," Murray Pettit, Winona, Ont.; "Adaptation of Varieties of Soil Conditions," by various speakers; and some others.

EXCURSIONS.

Three excursions were taken by the members of the society and others. The first one was through the Grimsby-Winona district, where were visited the fine farms of Hamilton Fleming, A. G. Pettit, Murray Pettit, J. W. Smith & Son, and the large establishment of E. D. Smith's. The second was to the Queenston-St. David's district, where the excellent farms of Wm. Armstrong and C. E. Fisher & Sons, were visited, and some of the party visited the farms of W. C. McCalla, A. Onslow and Robt. Thompson. The third and concluding feature of the program, took the members for an all-day trip to the Ontario Agricultural College, Guelph.

OFFICERS ELECTED.

The election of officers resulted in the return to office of those gentlemen, who have held these positions during the past two years as follows: Pres., L. A. Goodman, Kansas City, Mo.; 1st vice-pres., T. V. Munson, Denison, Tex.; sec., John Craig, Ithaca, N.Y.; treas., L. A. Taft, Agricultural College, Mich.; chairman, executive committee, C. L. Watrous, Des Moines, Iowa; chairman general fruit committee, S. A. Beach, Ames, Iowa.

Society for Hort'1 Science

At the sixth annual meeting of the Society for Horticultural Science, which was held at St. Catharines, Ont., on September 13, topics of much importance to fruit growers and experiment station workers were discussed. The main purpose of this organization is the promotion of research work in horticulture. A fair representation from the experimental stations and colleges of the United States and Canada was present. President W. A. Taylor, of Washington, D.C., was in the chair.

Some notes on pruning were given by Prof. W. R. Lazenby, of Columbus, Ohio. He stated that pruning is the one fundamental practice in horticulture about which we have little definite or no exact knowledge, and still less well grounded principles. There are few definite and well defined systems of pruning. It is a sort of hit or miss, go-as-you-please policy from start to finish.

In giving the reasons for this lack of

widely accepted policies in pruning, the professor referred to the diverse objects said to be accomplished by the same operations; such as, to stimulate as well as to check vigor of growth, to hasten as well as to retard the age of bearing, to increase as well as to decrease fruitfulness, to promote as well as to restrain the production of wood, and some others. These make the methods employed in the practice variable and the difficulty correspondingly great.

Another reason lies in the fact that we fail to recognize the colony characters of trees and higher plants. We are apt to treat the tree as an individual with a complete anatomy like the higher forms of animal life. By removing a certain portion of a tree at one time, we increase its vitality and by removing a like portion at another time we decrease its vitality, and in both cases, we may enlarge its usefulness. The speaker suggested that our horticultural experts get together and plan some far-reaching co-operative experiments in pruning. Many questions should be settled.

A paper on "Concentrated Lime-sulphur; Its Properties, Preparations and Use," was presented by Professor John P. Stewart, of State College, Pa. The subject was dealt with in an able manner and much that was new was told. Extracts from this paper will appear in later issues of THE CANADIAN HORTICULTURIST.

Mr. W. T. Macoun of the Central Experimental Farm, Ottawa, read a valuable paper entitled, "Over-coming Winter Injury." Some of the topics dealt with, such as root killing, sun scald and others, already have been discussed, by Mr. Macoun in THE CANADIAN HORTICULTURIST. Extracts from this paper are published elsewhere in this issue.

"Observations on the Horticulture of West Europe" was the subject of an interesting talk by Prof. U. P. Hedrick, Geneva, N. Y. He said that America can learn very little from Europe in regard to commercial horticulture, but that many ideas regarding landscape gardening could be gained. Dr. E. W. Allen, of Washington, D.C., discussed "The Adams Fund in its Relation to Investigation in Horticulture."

In an address on "The Ideal Variety," Prof. W. N. Hutt, of Raleigh, N.C., said that the demand in the markets for red apples had driven out much good fruit. The ideals of the producer and of the consumer should be merged as they are now widely divergent. While the strictly ideal variety may never be secured, we should strive to attain that end. The transportation problem should be given more attention so that fruit of the best quality may be carried to distant markets in good condition. Present facilities for transportation are largely the cause of the Ben Davis, Kieffer and Elberta, being standard varieties in their respective classes.

An able address was delivered by Dr. L. H. Bailey, of Cornell University, on "The Field of Research in Horticulture." He pointed out that every man could not do satisfactory research work, because every man has not a research mind. Mature men are needed in horticulture both in scientific and in practical work. Boys should not go to college too young; should they do so, they should spend a few years at work after graduation so that they might get right views of life before entering upon scientific research or other work. An all-round horticultural education is required, but the aim should be specialization in some one of its branches.

Rennie's fall catalogue has been received. In it are listed the best varieties of bulbs, perennials and other plants. Send for a copy.