

stick to the little insects and kill them. The powder should not be used on rainy days, for it will wash off from the leaves, and do no good. The insufflator, a little invention for holding in the hand and throwing the powder, is the best arrangement for applying buhach. The powder never injures the leaves of plants. It can be applied mixed with water. Professor Riley says that in a mixture where only 1-200 of a pound was used to the gallon of water the solution proved fatal to caterpillars. The water mixture is the most economical way of using buhach on plants, although, in order to prevent the too rapid evaporation of the mixture, add some glycerine, about half a gallon of crude glycerine being added to forty gallons of water. This mixture kills both the red spider and the scale insect, pests that in former years have been fought against with lye, and remained unconquered even when the lye was strong enough to crack the bark and injure the trees.

The use of buhach in liquid solution in this country dates from 1880, when the United States Entomological Commission discovered that it could be so used, and the Government Entomologist, in his report for 1881-82, says that "the finer the spray in which the fluid is applied the more economical is its use, and the greater the chance of reaching every insect on the plant."

Professor Cook, of Lansing, Mich., has killed cabbage-worms with a mixture of one pound of buhach with 200 gallons of water, and he also states that he has applied buhach mixed with flour and also with water, and has found both methods efficient in destroying the larvæ and imago of the Colorado potato-beetle.

Professor Hilgard, of the University of California, says that he has been surprised at the effect produced on the hairy tent-caterpillar by water that contained a mixture of one pound of pow-

der to fifty gallons of water. Although the tent-caterpillars paid no attention to the powder when blown upon them from the bellows, when they received a sprinkle of the diluted extract, they died very soon. Professor Hilgard has recommended the use of the extract in greenhouses and conservatories, on account of its harmlessness to plants.

Professor Riley states that there is nothing known to him that so quickly kills the cotton-worm as buhach.

Professor Eisen, in an address before the California State Viticultural Convention, held in San Francisco nearly three years ago, recommended the use of the buhach solution for spraying grape-vines, about forty gallons of solution being used for an acre of vines. One pound of buhach mixed with thirty of sulphur, and allowed to stand six hours before using, he recommended as a sure remedy for vine-hoppers.

#### QUALITY VERSUS QUANTITY.

In a few remarks last month I suggested the securing of quality of fruit, as one good step towards the realization of better prices for our horticultural products. Our markets are most always supplied with an excess of inferior articles, the prices for which, even though in excess of their actual value, act as a bar to sales of articles in the same line of a better grade.

This, I think, will apply to any article of trade in any branch of industry, and fruits are no exception.

The manufacturer of a strictly first-class article of dairy butter has enough of the inferior grades of the genuine article to compete with, to say nothing of the diabolic counterfeits in the shape of oleomargarine, butterine, etc. The merchant who endeavors to handle only first-class goods, has "Jews" and "cheap John" dealers in inferior grades of goods to contend with, and