

former to be weak in vitality, those of the latter strong. In many instances it has been observed where fruit trees were covered with bloom and poor results followed, that the weather at the time of bloom was cloudy, wet and cold and thus unfavorable to bees working among the flowers.

Scientific investigation indicates more and more as the question of fertilisation is considered, that bees are important factors in the production of fruit and thus become co-workers with fruit-growers.

BEES IN RELATION TO THE DESTRUCTION OF FRUIT. Along this line of investigation exhaustive experiments have been carried on under the direction of the Department of Agriculture, U. S. Neither care nor expense was withheld by the apiculturist to whom the work was intrusted. Hives were kept within a building from which the bees could not escape. In this grapes, peaches, pears and plums, varying from green to dead ripe, were placed. The bees were deprived of food and left with the fruit exposed, so that they might feed upon it when hunger affected them. Many came to the fruit from time to time but never broke the skin, but where they found it broken they at once fed upon the exuding juice. They showed no tendency to use their jaws in cutting open a place. The test was continued for thirty days and other bees tried with similar results. In all cases food was taken only from fruit which had been previously broken. Consequently it appears that bees will not injure perfect fruit, a conclusion arrived at by many observers before these thorough experiments were undertaken. This is what might be expected when the structure of the bee's mouth is considered. It is quite different in the case of wasps which are supplied with jaws suitable to break into the skin, and in all likelihood they are the cause of the injured fruit upon which some observers have seen bees feeding. Much evidence has been collected upon the amount of injury done by bees to fruit, and it all seems to be in favor of exonerating the bee from the charge of injuring sound fruit.

PARIS GREEN IN RELATION TO BEES. In several places where spraying is carried on extensively it has been observed that since the introduction of that practice many bees have perished during the time trees are in bloom, and some observers have noticed that the brood also perished.

Before the days of spraying such mortality was unknown. Now although there has been no analysis of the bodies of the dead bees for the purpose of ascertaining the presence of arsenic, still the death of the bees is so intimately associated with spraying that there seems but little reason to believe otherwise than that the bees have been poisoned by Paris green used in spraying fruit trees. However this will likely soon be settled by an analysis of the bodies of bees supposed to have been poisoned, and I have no doubt arsenic will be de-