

BENEFITS OF SPRAYING.

The efficacy of the means herein mentioned for preventing injury to our apple trees and apples from the apple scab, the codling moth worm, and leaf-eating caterpillars is no longer open to question. They have been most thoroughly and frequently tested, not by one person only, or in but one locality, but by very many persons, in very many places and under a great variety of circumstances; all testifying to decidedly beneficial results which abundantly compensate for all cost of labor and material. The results obtained by spraying an orchard of Tompkins King last season, 1893, as stated by Mr. E. G. Lodeman, are here given as one of many instances that might be mentioned. The material used was the Bordeaux mixture. Some of the trees were sprayed only twice, namely May 19th and June 8th; others four times, April 26th, May 19th, June 8th, and June 22nd; and yet others six times, April 26th, May 19th, June 8th and 22nd, July 13th and August 1st. On April 26th the buds were swollen almost ready to burst, on May 19th a few blossoms still remained on the trees, on June 22nd the young apples were set. At this date Paris green was added to the Bordeaux mixture, and used in this and all subsequent sprayings. The proportion of Paris green was equivalent to one pound in two hundred and fifty-six gallons of water, or two and a half ounces to the forty gallons of Bordeaux mixture. The apples were gathered about the middle of September, the fruit from each tree piled by itself, and divided into three grades; the first of entirely fancy fruit, only strictly first class apples put into it; the second of symmetrical and even large apples of good color, if several, even small, spots could be found on their surfaces; the third averaged as good as the ordinary barrelling apples of the country. From the trees sprayed only twice, 55 per cent. were first grade, 43 per cent. second, and 2 per cent. third; with 11 per cent. wormy. It will be remembered that the trees sprayed only twice received their sprayings before the codling moth would have laid many, if any, eggs. The trees sprayed four times gave 53 per cent. first grade, 46 per cent. second, 1 per cent. third, with 6 per cent. wormy. Those sprayed six times yielded 76 per cent. first grade, 19 per cent. second and 5 per cent. third, with 4 per cent. wormy. The trees left without spraying, for the sake of comparison, gave 25 per cent. first grade, 56 per cent. second, 19 per cent. third, with 9 per cent. wormy. The gain from two sprayings was 120 per cent., from four was 112 per cent., from six 25 per cent. of strictly first-class fancy fruit. The apples were subsequently sold, consisting of 65 barrels, the buyer graded them thus: 59 barrels firsts, $4\frac{1}{2}$ seconds, and $1\frac{1}{2}$ thirds; that is, he made 91 per cent. firsts, 7 per cent. seconds, and 2 per cent. thirds; whereas Mr. Lodeman makes his highest percentage