

PROFITS OF SPRAYING APPLE ORCHARDS.



R. E. S. LODEMAN, of Cornell University, has issued a bulletin on "The Profits of Spraying Apple Orchards," in which he shows the results of actual experiments in spraying. Some of his points are most evident, *e. g.*, that in wet seasons spraying needs to be repeated more frequently than in dry seasons, and that some varieties, notably the Fall Pippin, which is badly subject to the scab, may be sprayed with profit more frequently than varieties like Duchess and Baldwin, which are usually clean. These latter varieties he found it profitable to give only one application, while the former kind received from four to six. Evidently common sense is as useful in spraying as in other things.

Of the fungicides used, the Bordeaux mixture proved the very best; indeed, so evident was this, that the superiority of fruits sprayed with it could be detected at sight by their very appearance. The action on the leaves was plainly discernible, for the Bordeaux mixture protected the foliage so perfectly that scarcely a diseased leaf could be found. In the case of the Fall Pippin, the foliage of which is particularly subject to fusicladium, the difference in the foliage on the trees sprayed and unsprayed was very easily discernible.



FIG. 416.—APPLES SPRAYED AND UNSPRAYED.

In some cases the size of the apples was perceptibly increased, and, in his opinion, the color was also heightened. As an example of the experiments from which the conclusions were drawn, we mention the following one: A tree of Maiden Blush was selected and one half was sprayed and the other half left untreated. When harvested one hundred apples unsprayed weighed $24\frac{1}{2}$ lbs., while an equal number similarly chosen from the other half of the tree weighed $37\frac{3}{4}$ lbs., a gain of over 54 per cent. This difference was forcibly shown in another way; in fact, so plainly and conclusively did it show the value of spraying apples susceptible to the attack of the scab, that it alone would convince