

Effect of Fruit Worm in Reducing Set.

In the check plots we found 12.44 per cent. of the picked fruit showing Fruit Worm injury. Observations during June showed that 72.48 per cent. of the young fruits injured by Fruit Worms drop to the ground before maturity. So the number of apples which fell in the checks was 32.75 per cent. of the total set on 67.28 apples were grown where 100 would have grown if no Fruit Worms had been present. Spray 2 and 3 reduced this injury by 65.19 per cent. and so increased the set from 67.28 apples to 88.61 apples or an increase in set of 31.7 per cent.

TABLE SHOWING INCREASE IN SET DUE TO BUD-MOTH AND FRUIT WORM CONTROL.

| Due to | Per cent. drop due to insect injury. | Per cent. set in unsprayed plots | Per cent. benefit by spraying in controlling insects. | Per cent. set when sprayed. | Per cent. increase in set due to insect control. |
|----------------------------|--------------------------------------|----------------------------------|---|-----------------------------|--|
| Fruit Worm... | 32.72 | 67.28 | 65.19 | 88.61 | 31.7 |
| Bud-moth..... | 45. | 55. | 60.75 | 82. | 49.09 |
| Total increase in set..... | | | | | 80.79% |

Or where in the treated plots we grew 100 apples in the untreated plots we grew 55 apples.

Bud-moth Injury to the Picked Fruit

In estimating Bud-moth injury to the picked fruit, the counts in the various plots varied greatly, depending on the crop, size of the leaves, etc., so that no accurate idea of control beyond the general benefit in reducing Bud-moth could be gathered. The whole twelve plots averaged 44.7 per cent. Bud-moth infestation in the buds, while 9.5 per cent of the total crop of apples had leaves tied up to them, the surface showing injury by the young larvæ. A total injury of about one apple to every five buds injured in the spring. All apples injured by Bud-moths under the present interpretation of the Fruit Marks Act are packed as No. 3's or "culls," the injury being properly classed as "causing material waste."

Fruit Worm Injury to the Picked Fruit

In the check plots the total Fruit Worm injury was 12.44 per cent. of the picked fruit. Of these 39.5 per cent., or 4.97 per cent. of the total, were so damaged as to be fit only for No. 3's or culls.