INJURIES CAUSED BY BUD-MOTHS.

INJURY TO THE BUDS AND SET OF FRUIT.

When the bud-moth larva emerges from its winter quarters, and bores into the tip of the opening bud, its feeding does not prevent as a rule all of the blossoms in the cluster from opening.

In 1913, 100 clusters of blossoms of Wagner apples infested with bud-moth were examined, and only 35·8 per cent of the blossoms in those clusters were found to be noticeably injured. The actual injury, however, resulting from the weakening of the cluster, due to the larvæ feeding on the cluster of leaves surrounding the blossom, is more than this, as the following counts of the set show. Soon after the fruit set in 1913, an examination of the blossom clusters of the Wagner apple was made to determine the exact reduction in set caused by the bud-moth. One thousand blossom clusters free from bud-moth were found to have set 1,205 apples, while one thousand blossoms

Fig. 6.—Apple injured by bud-moth larva soon after setting, after the injury had been healed over. (Original.)

clusters of the same variety in the same orchard infested with bud-moth were found to have set only 305 apples, or the set in the blossom clusters infested was reduced in this orchard by 74·3 per cent. In 1915 another observation was made in another orchard of the same variety to verify this. In 100 blossoms clusters free from bud-moth 223 apples were set, while in 100 clusters infested with bud-moth 45 apples were set, or the set was reduced in the blossom clusters infested with bud-moth by 79·9 per cent.

In addition to the difference in set, a marked difference was noted in the size of the apples in clusters free from bud-moth as compared with those in clusters infested with bud-moth. To determine the extent of this, measurements were taken in late June on 100 apples from each. The 100 apples from the clusters free from bud-moth averaged ·536 inches in diameter, while the 100 apples from the clusters infested with bud-moth averaged ·464 inches in diameter.