

WHEN AND HOW TO APPLY THE SPRAY.

CLIMATIC FACTORS.

The time at which spraying operations should commence depends on several factors, chief among which are climatic conditions, state of cultivation of the orchard, and bud development.

The adults show the greatest activity on bright, warm, sunny days. In cool, dull, cloudy weather they either seek shelter in the soil from whence they came, or they burrow beneath the protecting scales of the bud. The orchardist should choose, if possible, a warm bright spell of weather after the buds have shown signs of developing in order to make the first application, at a time when the adults are in evidence on the buds. Should the weather remain dull and cloudy for a considerable period, but with a temperature of 50 degrees Fahr. or above, he should satisfy himself by a close examination of the buds as to the activities of the adults. Where it can be shown that the insects have already entered the buds and are lacerating the tissues, immediate spraying operations should commence. It would be courting disaster to postpone taking action in anticipation of bright weather, as the injury to the buds would in all likelihood be irreparable by that time.

CULTIVATION.

The practice of early spring ploughing, by reason of the fact that the soil is disturbed and therefore warms up readily, determines an earlier emergence of the thrips in ploughed orchards than in those orchards which are left unploughed. The theory that ploughing destroys large numbers of the insect is not at all sound, because the soil cannot be reduced to the fineness of condition requisite to destroy the cells in which they have passed the winter. Further, the adults are merely waiting for the proper degree of warmth in order to escape, and the readier penetration of the atmospheric air into ploughed soil supplies this requirement. It may be that the more rapid emergence of the insects from disturbed soil is of indirect advantage to the orchardist in that the infestation reaches a climax much more rapidly and can therefore be controlled more quickly where the necessary precautions are taken. Here, again, the watchword is careful examination combined with rapidity of action.

SCHEDULE OF APPLICATIONS.

For the sake of convenience the suggested schedule of applications has been drawn up as follows for the spraying of orchards of the Saanich peninsula of Vancouver island:—