APPLE BLEMISHES – THEIR CAUSES AND HOW TO CONTROL THEM

EVERY year apple growers lose a certain amount of fruit due to superficial blemishes caused by different types of insects. The injuries vary from conspicuous, corky scars to small spots and dimples. Several types of caterpillars and beetles are known to produce feeding scars of various kinds, but the cause of the dimpling found so frequently in Granny Smiths and, to a lesser extent, in some other varieties is still not known.

Comparable injury is caused to many different fruits by various plant-sucking bugs and aphids (Woodside 1950) but thrips activity is regarded by many growers as the cause of apple dimpling. There seems little doubt that a sap-sucking insect is involved and that the injury is caused at a very early stage in the development of the fruit but this does not necessarily implicate the thrips. A study of thrips activity over a period of many years has failed to reveal any definite correlation between the number of insects present at blossoming time and the incidence of apple dimpling. That some sucking pest causes the injury, however, is supported by the fact that the dimples can be induced artificially by puncturing the developing fruit at petal fall with a finely drawn glass thread (R. C. Owen, unpublished) and that the use of suitable insecticides will eliminate the trouble.

The first large scale field trial with DDT for the control of “dimpling” was carried out by Mr. H. Price of “Illawarra” orchard, Karragullen. A spray consisting of 0.1 per cent. DDT was applied with power equipment on September 28, 1950, just before bud-burst and samples from sprayed and unsprayed trees were examined by entomologists between November 29 and December 3. In all, 40 trees were sampled and 120 apples were taken from each tree. The sampling showed that fruit dimpling...
and various blemishes caused by chewing insects such as caterpillars and beetles were greatly reduced by the treatment.

A second field trial, similar to that just described, was conducted on Messrs. Brindle Bros. property at Parkerville, in 1953. The results substantiated the findings of the earlier test and the degree of control obtained in both trials is revealed in the following table:

<table>
<thead>
<tr>
<th>Locality</th>
<th>Type of Injury</th>
<th>Per cent. Damaged Fruit on Sprayed Trees</th>
<th>Per cent. Damaged Fruit on Unsprayed Trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karragullen</td>
<td>Dimpling</td>
<td>12</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Chewing</td>
<td>24</td>
<td>124</td>
</tr>
<tr>
<td>Parkerville</td>
<td>Dimpling and chewing combined</td>
<td>3</td>
<td>224</td>
</tr>
</tbody>
</table>

General observations in other orchards have substantiated the results of the trials just described and indicate that an early spring spray with DDT will greatly reduce various types of apple blemish.

Although it has not been possible to directly associate thrips numbers and apple dimpling, there is evidence to show that high thrips numbers may affect apple setting (Andrewartha & Kilpatrick 1951). This view has been further strengthened by the fact that thrips have been checked by an application of DDT in September and that increased setting has been claimed by many orchardists following such a treatment.

In some districts and in certain seasons the September DDT treatment may be a little early to prevent damage from looper caterpillar, leafhopper, spring beetle, etc., later in the season. Action against these pests is normally taken in late October or early November. Although in light years the early treatment may prove adequate, conditions should be watched carefully and a later treatment should be applied if insect activity appears dangerous.

**REFERENCES**


STATE SAW MILLS AND BRICK-WORKS

SUPPLIERS OF—

Karri, Jarrah, Local and Imported Pine, Baltic Pine, Oregon, Pressed and Wire Cut Bricks, also all Builders’ Hardware

Head Office:
306 MURRAY STREET, PERTH :: Tel. BA 2541

Joinery Works and Main Distributing Depot:
MILLER STREET, VICTORIA PARK :: Tel. M 2096

Country Yards:
MERREDIN AND NARROGIN

Please mention the "Journal of Agriculture, W.A.," when writing to advertisers
Your problems are ours...

AND

"THE CHRONICLE"

EXPERTS CAN HELP YOU

- The pages of "The Chronicle," South Australia's leading agricultural weekly, are packed with news and advice on dairying, poultry, animal health, farm machinery, orchard and vineyard, answers to farmers' questions and the home garden. Better farming is our aim.

- Features are conducted by experts with University or Agricultural College degrees.

- As farmers in the two States share many similar conditions, "The Chronicle" should be equally valuable to you. Hundreds of former South Australians already know its worth.

For the rest of the family there are special features every week: a section for women, with readers' recipes, mothercraft advice, household hints and letters from readers; pages and pages of pictures; fiction and magazine articles; a pen friends' page, a children's page and replies to medical, legal and general queries.

SEND FOR "THE CHRONICLE" AND SEE!

Let us have your name and address and we will forward you a complimentary copy and would welcome your comments.

"THE CHRONICLE,"
BOX 392, G.P.O.,
ADELAIDE.