

The following analysis of results obtained in official experiments carried out in the Hawke's Bay District and at the Nelson research orchard indicates the value of spraying with lead arsenate  $1\frac{1}{2}$  lb. per 100 gallons spray for the control of codling moth, leaf-roller caterpillar, and bronze beetle :—

District.	Lead Arsenate : Number of Applications.	Wormy Apples.	Stings.	Leaf- roller.	Bronze Beetle.	Variety.
		Per Cent.	Per Cent.	Per Cent.	Per Cent.	
Hastings ..	Check, Nil ..	16.9	1.4	14.9	8.5	Cox's.
	Test, 6 ..	0.6	7.6	0.3	Nil	
Nelson ..	Check, Nil ..	5.5	9.9	41.0	No	Sturmer.
	Test, 5 ..	0.05	0.8	2.6	record	

In the Hastings trial 2 gallons spray applied per tree. In the Nelson trial  $2\frac{1}{4}$  gallons spray applied per tree.

*Codling Moth* is not difficult to keep under control where standard measures against it are adopted. Most injury is occasioned by stings or bites.

Bandaging is a valuable supplementary means of capturing the codling grub. Bands should be applied to the trees by the middle of November, and should be removed carefully in the winter so that the grubs lodged against the bark of the tree will not be lost on the ground. Chemically treated bandages should be burnt, while sacking bandages should be carefully examined and all larvæ found therein killed and the bandages replaced not later than mid-November. Rough bark and crevices should be examined for larvæ.

Other means of control are treatment of picking-cases, examination of packing-sheds and equipment for grubs—picking from the tree or gathering without undue delay fruits which have fallen to the ground, and destroying the grubs by feeding fruit to stock, submerging it in water for a day, or destroying it.

As the result of thorough and timely spraying, together with these supplementary measures, codling moth should not prove troublesome to combat.

*Leaf-roller Caterpillar.*—The moth is usually in flight in November, December, January, and February period, and in some years into March. As the foregoing results show, spraying is effective against this pest on apple-trees. Where severe injury obtains it is probably due to absence of adequate coverage on the young growth and foliage and on the fruit, or to the discontinuing of the arsenate sprays too early.

*Bronze Beetle.*—In addition to spraying, the land should be cultivated up to the orchard boundary, and, in addition, the soil about the trees should be stirred at "petal-fall" period: this latter measure is important where the beetle is troublesome.

*Pear or Cherry Slug.*—No trouble is experienced on pears where lead arsenate is applied to control the codling moth. On cherry trees one, but at the most two, applications of lead arsenate will control this pest.