THE LIME-SULPHUR SPRAYING COMPOUND.

J. A. CAMPBELL, Assistant Director, Horticulture Division.

COMMERCIAL lime-sulphur solution has now been in fairly general use by New Zealand fruitgrowers for three seasons, and it is safe to say that it has gained in favour each year.

As an insecticide lime-sulphur is not equal to oil emulsion for winter use, nor is it equal to some of the other special sprays for summer use; nevertheless, it is very useful in summer for the control of red mite, scab, &c.

As a winter fungicide it does not equal either bluestone solution or Bordeaux mixture, but when used sufficiently strong it is not to be despised for this purpose. The same may be said of the solution as a summer fungicide. It is not equal to Bordeaux mixture for the control of black-spot, particularly after the disease has made its appearance; but it is infinitely preferable to Bordeaux for summer use, being far less liable to damage the fruit. In addition, lime-sulphur has a direct advantage over Bordeaux mixture in the control of powdery mildew. Bordeaux is of little or no use against this disease, while lime-sulphur (apart from atomic sulphur, which, although so far satisfactory, has had only one season's trial) is the best remedy for mildew we have.

The fact that emulsified oil and other solutions are recognized to be superior insecticides, and that Bordeaux is a more effective fungicide than lime-sulphur, should on the face of it leave the latter spray at a disadvantage. But this is compensated for, particularly for summer use, by the fact that lime-sulphur possesses both insecticidal and fungicidal qualities, and, when properly applied, covers both these purposes quite satisfactorily, thereby doing away with the extra amount of labour required in spraying with separate solutions for the different purposes. Lime-sulphur can be safely combined with arsenate of lead; in fact, the general opinion is that the good effect of lime-sulphur is increased by the combination.

Lime-sulphur when used at too great a strength is liable to damage foliage badly, and the action of the material in this way appears to be somewhat inconsistent. A diluted mixture which