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Applying Copper and Zinc Fertilisers to Cereals

By H. M. FISHER, B.Sc. (Agric.), Adviser, Wheat and Sheep Division

Most light soils with a sandy or gravelly surface are likely to need copper and zinc; heavier clay or loamy soils mostly do not.

If you want to satisfy yourself that real and economical responses are being obtained from these trace elements on your farm, do not rely on a comparison of different paddocks, which is an easy but unsatisfactory measure. A more useful comparison can be made by omitting trace elements from one or more small pegged areas of say half an acre within a paddock and comparing their production with similar treated areas adjoining. Remember in this case that the superphosphate must be applied to treated and untreated areas at the same rate, so that the only difference between them is in the application of trace elements.

Where copper fertiliser is applied, wheat usually responds more markedly than barley, while oats responds least.

With zinc application oats responds more than barley and barley more than wheat.

This does not mean that copper fertiliser is not required for oats and that zinc is not required for wheat. The distinction between cereals is largely one of degree. On deficient soils wheat, oats and barley can all be expected to benefit to some extent from applications of both copper and zinc.

It is strongly recommended that the two trace elements be applied together regardless of which of these cereals is sown. This has a number of additional advantages including the fact that it avoids the extra mixing charge involved in procuring two lots of fertiliser, one with copper and one with zinc to be applied in different years.

Even Spread Essential

Since in most areas a single application of copper and zinc lasts for at least six or seven years it is obviously more important to ensure a careful and even spread of these fertilisers than is the case with superphosphate, where more frequent applications serve to iron out irregularities.

Satisfactory distribution is obtained where copper and zinc are drilled with cereal crops or with sown pastures. Where the fertilisers are topdressed, as for example on established pastures, fertiliser broadcasters of the spinner type should be used with extreme care to ensure that distribution is even.

The dropper type of broadcaster or combine adapted for this purpose is the most effective implement for getting even cover. Contact your local adviser if in doubt about the application of these fertilisers.