of ammonia except that it does not acidify the soil.

Phosphorus

Phosphorus (phosphate) stimulates root development and generally helps to stabilise plant growth. Some examples of phosphatic manures are:—

Superphosphate (20 per cent. phosphorus).

Basic slag (16 to 22 per cent. phosphorus). The phosphate becomes available very slowly. Basic slag has various amounts of minor elements which are of value to plant growth.

Bonedust (25 per cent. phosphorus, 3 per cent. nitrogen). This manure is slow acting and used largely for bulb growing in the flower garden. In the home orchard it can quite well be replaced by superphosphate.

Potassium

Potassium (potash) is an important fertiliser for hardening vegetative growth, thus effectively balancing the effect of nitrogen. It is important also in helping to colour fruit. On some soils potash can be "fixed" very easily, so that even after potash has been applied excessive growth or lack of colour may be still apparent. On such soils additional side dressings of potash should be applied. The main sources of potassium are:—

Sulphate of potash (48 per cent. potassium oxide).

Muriate of potash (50 per cent. to 60 per cent. potassium oxide).

These two fertilisers are both highly soluble forms of potash, but there can be a tendency for muriate of potash to burn plants with which it comes directly in contact, particularly if the foliage is wet.

Wood ash (1 to 10 per cent. potassium oxide). The amount of potash available depends on the type of wood which has been burnt, but in any case wood ash, though not useful enough to replace the potassic fertilisers mentioned, is always worth putting on the garden in the small quantities usually available from garden incinerators.

Application of Manure

With continuous cropping adequate fertiliser applications are essential, but the quantities and types of fertilisers used must differ according to the natural fertility of various soils. The following mixtures may be used as a guide for a balanced fertiliser:—

For Apples, Pears, Apricots, and Plums

	Parts by weight
Blood and bone	2
Superphosphate	2
Sulphate of ammonia	1
Sulphate or muriate of potash	1

For Peaches and Sub-tropical Fruits

	Parts by weight
Blood and bone	1½
Superphosphate	1½
Sulphate or muriate of potash	1

For Citrus

	Parts by weight
Sulphate of ammonia	2
Blood and bone	2
Superphosphate	3
Sulphate or muriate of potash	1

For trees from 3 years to 5 years old 2lb. per tree is sufficient on most soils, but this could be increased by ½lb. to ¾lb. per year until the tree is 10 years old. The rate reached by the time the tree is 10 years old should be the annual dressing thereafter.

Trees and berry canes which are losing vigour should receive increased amounts of nitrogenous fertiliser, and potash may be reduced or eliminated for a year or two. On the other hand for trees that are too vigorous and not fruiting satisfactorily nitrogen should not be applied and potash applications should be increased.

Fertilisers should be applied at least 3 weeks before bud movement is expected. The common fault of applying the fertiliser too close to the tree should be avoided.

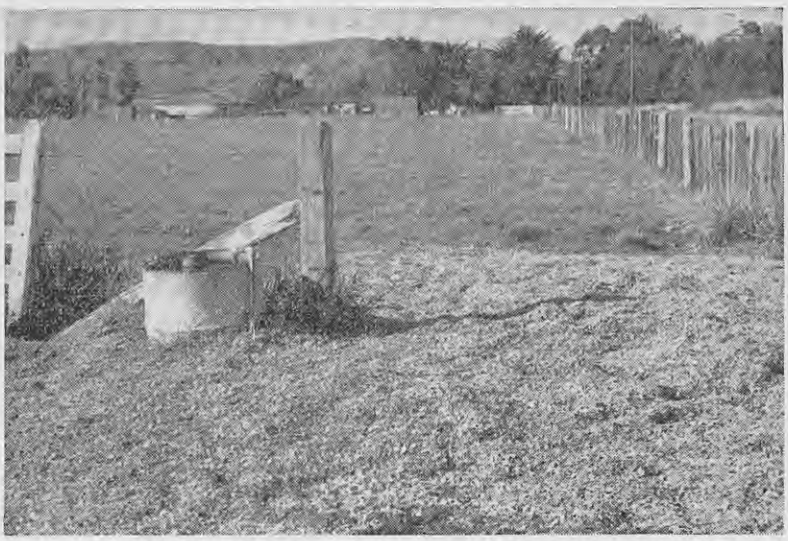
The main feeding area of trees and bushes is just short of and just beyond the ends of the branches. The fertiliser should be placed in a circular band 1ft. from the butts of small trees and shrubs and up to 3ft. from the butts of large trees to just beyond the spread of the branches.

SPRING CULTIVATION

Where the orchard is not in lawn and has been deeply cultivated during winter, light cultivation round the trees should begin as soon as the weather is favourable. After wet weather this type of cultivation is most helpful in reducing excess water.

Continued cultivation from this stage is essential if weed growth is to be kept under control, and in turn this will help to conserve moisture as the weather becomes drier. Disease control, too, is assisted by cultivation, because it eliminates some of the plants that harbour pests and diseases.

Wood Shavings Prevent Cutting up in Farm Gateways



THE wear and muddy condition of farm gateways caused by stock continually passing through, especially in wet weather, can be avoided if a load of wood shavings is placed in the gateway, as in the accompanying photograph. These can be obtained from mills or joinery works, often at no cost. They are clean and will not cling to the feet and legs of cows, which is a great advantage in the milking shed. Another advantage is that they do no harm or damage to the feet of animals as often occurs when sharp stones become wedged between the claws of the hoof. This is one of the causes of the disease foot abscess that is common in dairy cows.

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