garden conditions, where cropping is fairly intensive, broadcasting of a general base mixture is perhaps the most satisfactory method. Where the different kinds of vegetables are usually grown in small quantities the application of special mixtures to each one is very difficult and perhaps not warranted. Fertiliser that is broadcast should be worked in well before sowing or planting begins.

Although broadcasting is the easiest method of applying fertilisers, band application along the line of the row is the most effective and economical. The garden line should first be laid out and the fertiliser then applied in a 12in, band along the line. The fertiliser can then be raked or lightly pricked in with a fork before sowing or planting.

Overseas experiments have shown that band application below the seed drill is the most effective method. In the home garden a deeper and wider drill than is necessary for sowing should first be made. The fertiliser can be spread along this and then soil returned to the drill. The seed drill can then be drawn to the required depth above the fertiliser level.

Although many gardeners sow fertiliser in the drill when sowing seed, this practice is unwise. This applies particularly to dried blood, blood and bone, sulphate of ammonia, and phosphatic and potassic fertilisers. In some instances germination can be checked almost completely and in others growth of young seedlings can be retarded seriously. Growth can be retarded for two reasons: First, the ammonia released during the breaking down of the nitrogenous fertilisers can kill the seeds; and secondly, the relatively high proportion of salts which pass into solution from some fertilisers causes plasmolysis, which in turn can kill the young plants in the seeds. It is therefore safer not to sow any fertilisers with seed.

Side dressings should not be made too close to growing plants, but at the same time should not be applied so far away that they will be ineffective. The placement should be judged mainly by the stage of growth of the plants, but in any case the fertiliser should not come in contact with stems



[Green and Hakn Photography Ltd. photo.

Soot is a good source of nitrogen and can be used for liquid manure either alone or with animal manure.

and leaves. The most satisfactory method is to apply side dressings about each plant for widely spaced plants and in a band along each side of the row for close-growing plants.

Where animal or other forms of organic matter are used during the growing season as a source of food they should be used carefully, as plant damage may result from careless application. Light applications in the form of a surface mulch can be made with comparative safety to leaf crops in general, celery, tomatoes, runner beans, asparagus, and rhubarb. As with fertilisers, animal manures should not come in direct contact with the growing plants.

Gardeners should appreciate that whatever fertilisers are used only

supplement, and should not in any way take the place of, soil improvement by the application of organic material of plant or animal origin. A soil of good structure has many advantages among which is the important one of acting as a reservoir of plant nutrients and giving them up as required by the growing plant.

Other Work for September

The new season's activities are usually well under way during September, and in most districts at least some of the hardy vegetables may be sown. In heavy soils and in the colder districts soil conditions will not yet favour very widespread planting. If soil moisture appears to be excessive, gardeners should check drainage with



[Green and Hahn Photography Ltd. photo. Besides providing valuable organic matter, seaweed is a good source of plant foods.