

BRUSSELS SPROUTS CROP IN OTAGO



Land ridged ready for planting.

Green Manure and Stable Manure

Stable and animal manure, usually combined with straw, has been found excellent material for incorporation with the soil for brussels sprouts growing. However, the value of the manure to the crop depends largely on the kind of animal from which the manure was obtained and the percentage of straw incorporated with the manure. Stable manure is broadcast on the land after the initial cultivation and lightly harrowed in before ridging is done.

Green-manure crops are most important for improving the physical condition of the soil, which is necessary for free development of plant roots and high-producing crops. Only by the incorporation of organic material has it been possible to prevent the physical condition of the soil from being impaired. There are several crops suitable for employment as green crops, but in Otago those used, in order of importance, include oats, lupins, barley, and peas. There are many important factors to be taken into consideration when determining the most suitable green crop to grow, but generally the value of a

green crop lies chiefly in the quickness of growth and the amount of humus produced per acre. Deep-rooting green crops bring plant food from the subsoil and when incorporated into the topsoil provide additional plant foods for the growing crop.

Where the land is inclined to cake, two green crops can be grown in the ground during the spring and summer. If a system of crop rotation and green manuring is followed, the physical condition of the soil can be maintained.

Preparation of Land

Because of variations in the soil and the varying treatment necessary on different classes of land, there is no set method of cultivation, but the aim is to bring the soil to a fine tilth suitable for the needs of the crop and for the free development of the plant roots. No crop responds better to good cultural conditions of the soil than do brussels sprouts.

The initial cultivation before planting is a most important factor in successful cropping. Deep cultivation is carried out as early as possible in

the spring as soon as soil conditions are favourable. The soil is usually cultivated to a depth of 8 or 9in., but this will depend on the depth of the soil. The ground is worked to a fine tilth and a green crop sown for incorporation in the soil to increase the supply of humus.

Growers have found that brussels sprouts thrive best on virgin soils rich in organic matter, which clearly indicates that humus in some form is necessary. It is therefore obvious that for good crops the condition of the soil should be as similar as possible to that of virgin soil. The green crop should be evenly distributed throughout the soil rather than ploughed in the ordinary way, and the rotary hoe has given excellent results in Otago market-gardening districts, where the subsoil is mainly sandy.

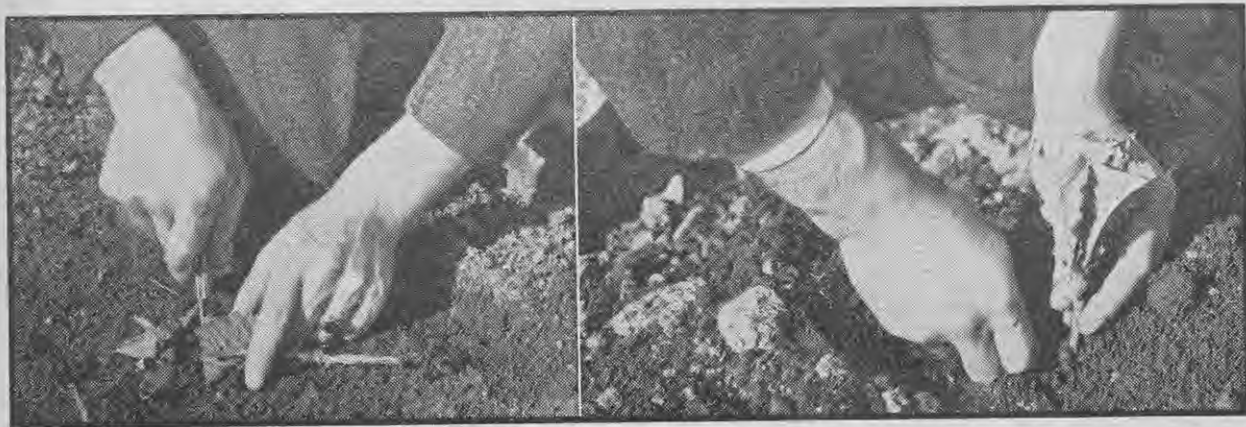
After the green crop has been hoed in the land is generally allowed to lie until 2 weeks before planting, when it is given a further cultivation with the discs and spring-tooth cultivator. After being worked to a fine tilth the soil is thrown up in ridges 2ft. 6in. apart and 8 to 9in. high, running in the direction of the water flow. Ridging facilitates drainage and makes for a longer growing season, as the soil is kept much warmer in the autumn and early winter than where the soil surface is flat.

Liming

In Otago liming before initial cultivation is an important part of management where brussels sprouts or any other cruciferous crop is being grown and is seldom neglected by the more experienced growers. Liming, which is usually carried out at 2- to 3-year intervals, assists greatly in the prevention of club root, a common disease of brussels sprouts and allied crops. The rate of application is from 20 to 30cwt. of carbonate of lime per acre.

Varieties

Of all the varieties of brussels sprouts cultivated commercially in Otago Scrymger's Giant has met with the most success if given suitable treatment.



Left—Removing part of the leaf growth before planting. Right—Soil being pressed firmly round the roots.