

# BRUSSELS SPROUTS A VALUABLE WINTER CROP IN OTAGO

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**L**ITTLE is known of the origin of brussels sprouts, but according to literature the vegetable was in demand as a food in Brussels as early as 1213, and its name is derived from association with the Belgian capital. In Otago the history of brussels sprouts culture dates back to 1890. Although there are no reliable records available, it is highly probable that brussels sprouts were included among the first vegetable crops grown, but not until recent years was this most important crop cultivated in Otago on a commercial scale. Today Otago is the leading brussels sprouts-producing area in New Zealand. Production is confined mainly to Taieri and Oamaru districts, where some 70 acres, with a yield of approximately 350 tons, are grown annually.

**T**HE value of the brussels sprouts crop to Otago market gardeners varies considerably each year according to market fluctuations, but the return for the last crop was estimated at between £16,000 and £20,000.

The distribution of the crop is determined mainly by market prices, but the following list gives some idea of the way in which Otago-grown brussels sprouts are distributed:—

Market	Percentage of crop
Invercargill .. .. .	6
Gore .. .. .	2½
Balclutha .. .. .	1½
Dunedin .. .. .	35
Oamaru .. .. .	2
Timaru .. .. .	4
Christchurch .. .. .	35
North Island cities .. .. .	14*

\* When transport is normal.

Brussels sprouts rank high in importance among the vegetable crops grown in Otago and every care is taken to maintain a high standard of cultural practice and to bring production to the highest possible level.

Otago's climate and soil conditions seem well suited to the cultivation of brussels sprouts. As with most crops

brussels sprouts will naturally do much better on certain classes of soil than on others, and in Otago the most suitable soils are those ranging from loam to heavy loam. Very light sandy soils and shallow soils should be avoided.

In the Otago district land must be well drained, either naturally or artificially, free working, of a good depth, and in proper physical condition to produce good crops of high quality. Excellent crops are obtained during the first two or three years where virgin land rich in organic material (grass and rootlets) has been opened up. The organic material assists in keeping the soil open during the growing season, in conserving moisture, and ultimately in supplying plant foods. In older land these conditions are attained only through the addition of organic matter to the soil by working in green crops, etc. As brussels sprouts are gross feeders, ample plant food and moisture are needed.

Exceptionally high yields have been obtained in Otago in seasons when the autumn has been wet and cold, but the winter comparatively dry.

## Fertilisers

In fertile virgin soils the plant foods necessary for successful cropping are



A well-developed plant partly harvested.

generally present in sufficient quantity, but elsewhere it may be necessary to apply fertilisers and organic manures. This may be done either by adding artificial fertiliser or by incorporating green crops or animal manure with the soil.

Many methods are adopted for increasing yields: Good cultural practices, disease control, and seed selection all have their bearing on crop production, but Otago growers consider that the intelligent use of fertilisers on ordinary soils is a most important factor in the economic production of brussels sprouts.

Because most market gardeners find it difficult, if not impossible, to obtain natural manure such as stable manure, stack bottom, cow byre cleanings, etc., artificial fertilisers have to be used. It is not possible to lay down any hard and fast rule as to what manures to apply, as the type and quantity required depend generally on the previous crops grown on the land. There are, however, certain basic principles practised by Otago growers, who realise that fertilisers improve the quality of the crop considerably and greatly influence the yield.

Best results over a number of years have been obtained by using a mixture of superphosphate, 3 parts by weight, blood and bone, 4 parts, and sulphate of ammonia, 1 part. This mixture is used, at the rate of 8cwt. to the acre, by growers throughout Otago with excellent results. It is applied in two dressings: The first at the rate of 6cwt. to the acre is made before transplanting the crop; the second, at the rate of 2cwt. to the acre, is made as a top-dressing, generally 2 months later, just before inter-row cultivation begins.



Brussels sprouts packed in cases ready for market.