

Broccoli Growing Guide

Brassica oleracea var italica



Broccoli is in the Brassica group related to the cabbage producing a single green head; it is thought to have first been cultivated in ancient Italy. It is a good source of vitamin C and folate. Also research shows it contains selenium and glucosinates. Selenium and glucosinates are thought to have a cardioprotective role as they can produce and cause activation of cardioprotective proteins.

UK Market

Most broccoli is sold in the fresh market, although some is grown for processing.

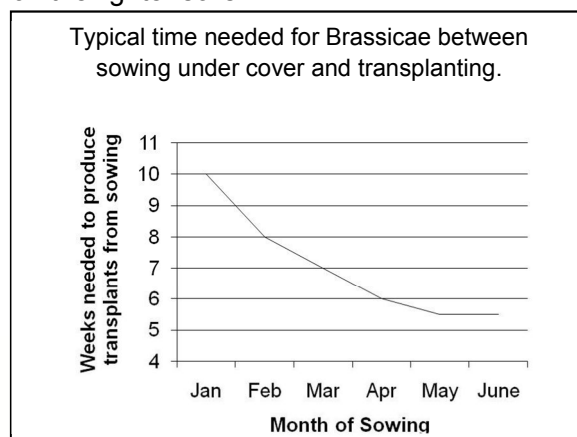
Soil types

Broccoli can be grown in a wide range of soil types, it is important that the soil is well drained and has a good structure (e.g. no soil pan) as the plant has shallow roots. Moisture is needed throughout the growing season, irrigation maybe needed on the lighter soils.

Growing

The crop is grown from modules and then transplanted. The earliest crops are sown in modules under glass in the early autumn for spring planting. This is done to reduce the risk of 'blindness', however it is a risky technique which we do not recommend and should only be undertaken by specialist plant raisers. Thereafter it is continually sown from February onwards, transplanted and then cropped June onwards.

The spacing between the plants affects the head size, it is normally planted 16" apart in 24" rows, with approximately 16,000 plants to the acre (39,500 plants per hectare).



Post-harvest treatment

In warm conditions broccoli cannot be stored for long and is normally supplied almost immediately to the customer. Unless broccoli is cooled as soon as possible after harvesting it will become limp, cooling prevents this by slowing the water loss and can also slow other forms of deterioration maintaining quality prior to sale. The harvesting of immature heads can result in increased shelf life.

Fertiliser use

Source: The Fertiliser Manual (RB209), 8th edition (2011).

Nutrient	Soil index						
	0	1	2	3	4	5	6
	kg/ha						
Nitrogen (N) - all types							
Summer/Autumn ^a	290	260	325	210	170	80	0 ^b
Winter hardy/roscoff ^a							
- Seedbed	100	100	100	100	60	0 ^a	0 ^b
- top-dressing	190	160	135	110	100	80	0 ^b
Phosphate (P ₂ O ₅)	200	150	100	50	0	0	0
Potash (K ₂ O)	275	225	175 (2-) 125 (2+)	35	0	0	0
Magnesium (MgO)	150	100	0	0	0	0	0

^a The recommendations assume overall application. Band spreading of nitrogen may be beneficial

^b A small amount of nitrogen may be needed if soil nitrogen levels are low in the 0-30 cm of soil

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Where there is a risk of poor establishment or leaching, apply no more than 100 kg N/ha at sowing or transplanting. The remainder should be applied when the crop is established but before the surface soil dries out. There is a benefit from banding or placing the nitrogen applied at sowing or transplanting – if nitrogen is only applied to half the width of the row, reduce the seedbed application by 33%.

The SNS Index for second crops grown in the same season is likely to be between Index 4 and 6 depending on the growing conditions of the first crop.

Sulphur

Consider applying up to 50 kg SO₃/ha in situations where sulphur content of soils is low, for example on light soils following wet winters where there is no history of organic manures application.

Varieties available from Elsoms seeds

Belstar F1

Belstar is suitable for early and late production; it takes 70 days to mature from transplanting in good growing conditions.

Fiesta F1

It is suitable for production in late summer to autumn and takes 80 days to develop from transplant to maturity.

Beaumont F1

This variety is suited to summer and autumn cropping and has a transplant to maturity time of 85 days.

Cropping guide

Variety	Approx weight (gram)	Suggested outdoor planting/maturity guide								
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Belstar F1	400/500		Planting			Maturity				
Fiesta F1	300/400	Planting	Planting	Planting	Planting	Planting	Planting	Maturity	Maturity	
Beaumont F1	400/500	Planting	Planting	Planting	Planting	Planting	Planting	Planting	Planting	Maturity

Planting

Maturity

Further information

For further information on the different varieties, seed treatments, pests and disease please contact your regional vegetable seed specialist or see the Elsoms Seeds catalogue.

Links

Elsoms Seeds website and catalogue:

<http://www.elsoms.com/>

The Fertiliser Manual (RB209)

<http://www.defra.gov.uk/publications/files/rb209-fertiliser-manual-110412.pdf>

The information provided in this sheet is intended for general guidance only and is correct to the best of our knowledge. Please be aware that variations in the growing environment and climatic conditions can render this information inaccurate. For more specific advice about fertiliser use please contact a FACTS certified advisor.

KCW/JAN13