

Bulb vegetables

WHAT ARE BULB VEGETABLES?

Bulb vegetables have underground, vertical shoots that have modified leaves (or thickened leaf bases) that are used as food storage organs by the dormant plants. Some bulb vegetables, garlic for example, are also known for their medicinal values.

Bulb vegetables include some of the following:

- Chives
- Garlic
- Leeks
- Onions
- Scallions
- Shallots
- Water chestnuts

Production areas in South Africa

Approximately 6 100 ha of bulb crops are grown annually in South Africa in the Western Cape, KwaZulu-Natal, Limpopo, and Northern Cape provinces, and 600 ha of bulb seed crops are grown primarily in the semiarid regions of the Western Cape.

Climatic requirements

Bulb crops are cool season crops which grow well in a wide range of temperatures (optimal temperatures are 13 to 29 °C). Bulb plants perform well (quantity and quality) when temperatures are cool during the early stages and warm towards the end of the growth period. Cool conditions favour optimum growth.

N.B. Day temperatures above 24 °C reduce the yield of some cultivars.

Soil requirements

Most bulb vegetables can grow in practically all types of soil but most prefer deeply cultivated sandy loam, alluvial clay soils, friable, fertile soils well supplied with humus and well drained with a high level of organic matter.

Planting

The suitable planting time differ from one area to another in South Africa and this is due to different climatic conditions but planting can start from February to May.

Planting depth

The cloves are planted to the depth of about 50 mm on raised beds or on the flat ground.

Planting density/spacing

Spacing between rows will depend on the method of planting and available equipment for cultivation. Single or multiple rows of plants are commonly used. However, the general recommendation for spacing the divided cloves is 8 to 15 cm with row spacing of 30 to 40 cm.

Potential problems and management

Thrips (*Thrips tabaci*)—the most important bulb pest as well as diseases such as downy mildew (*Peronospora destructor*), purple blotch, Fusarium basal rot, soft rot, neck rot, onion smut and onion rust are most common in growing bulb vegetables. Therefore, registered and recommended chemicals can be used as control measures. It is also advisable to practice crop rotation to reduce attacks by diseases and pests. Proper sanitation is also a requirement.

Production schedules

Bulb vegetables	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Chives	X	X										X
Garlic			X	X	X							
Leeks									X	X	X	
Onions					X	X	X	X				
Scallions						X	X	X				
Shallots					X	X	X	X				
Water chestnuts	X	X							X	X	X	X

References

http://wikieducator.org/images/9/9b/LECTURE_10_BULB_VEGETABLES.pdf
www.harvestwizard.com/bulb_vegetables/
www.fotosearch.com/photos-images/bulb-vegetables.html



CONTACT DETAILS

Directorate : Plant Production
 Division : Vegetables
 Tel : 012 319 6072
 Fax : 012 319 6372
 E-mail : DPP@daff.gov.za



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA