



DEPARTMENT: AGRICULTURE



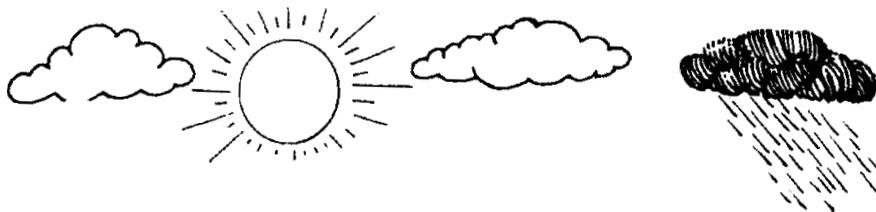
Cultivating vegetables —CROP ROTATION

It is not good practice to plant the same crop year after year on the same land. Try to avoid planting any specific crop on a land more often than once every 3 years. Keep the following factors in mind when planning crop rotation:

Environment

Make sure the soil is suitable for the possible crops. Take into account soil depth, texture and salinity.

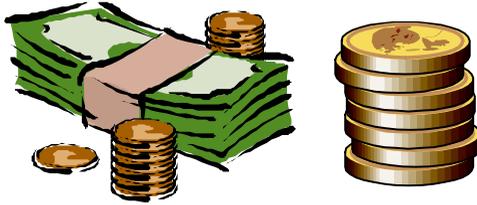
Study the climate over the various seasons when deciding which crop can be grown successfully at different times of the year.



Economy

Investigate the costs of producing various vegetable crops, as well as the expected income for various planting and harvesting times.

Remember that prices are higher than normal at certain times of the year.



Diseases and pests

Crops belonging to the same family, eg cabbage, cauliflower and broccoli or tomato, potato and eggplant, are often attacked by the same group of pests and diseases. Related crops should therefore not be included in successive plantings or even in the same 3 year rotation programme.

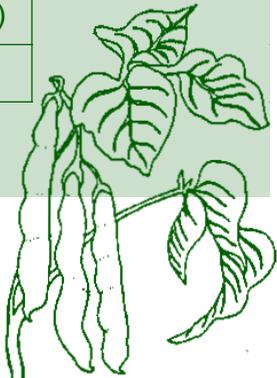


Weeds

Crops which do not grow very tall and are therefore easily overgrown by weeds such as carrots, lettuce or onions should follow crops in which weeds were well controlled.

Rooting depth

Some vegetables have shallow root systems while others have deep roots. Vegetables can be classified according to the depth of rooting.

Shallow (Less than 600 mm)	Medium (600–1 200 mm)	Deep (More than 1 200 mm)
Broccoli	Beetroot	Asparagus
Brussels sprout	Carrot	Artichoke
Cabbage	Cucumber	Lima bean
Cauliflower	Eggplant	Parsnip
Celery	Green bean	Pumpkin
Garlic	Green pea	Squash
Leek	Marrow	Sweet potato
Lettuce	Pepper	Tomato
Onion	Swiss chard (spinach)	
Parsley	Turnip	
Potato, radish, sweetcorn		

Nutritional requirements

❖ Crops with high nitrogen requirements, such as cabbage, should follow a leguminous crop such as green beans and peas which fix atmospheric nitrogen.



❖ Certain crops such as carrots and beetroot, can be damaged by the application of too much organic manure. These crops should be planted later in the succession after organic manure application to crops such as tomatoes, which respond well to organic fertilising.

- ❖ Crops which use large quantities of nutrients, such as cabbage, should follow crops with lesser needs such as pumpkin or less efficient feeders such as potatoes in order to make use of residual nutrients (nutrients which remain in the soil after the crop has been harvested).



For further information contact your nearest extension officer

This publication is available on the web: www.nda.agric.za/publications

Acknowledgement

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VEGETABLE CULTIVATION a practical handbook by E G van Antwerpen
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