

establish themselves in the new conditions without being exposed to excessive heat and strong sunlight. First irrigate the seedbed and then dig up in the seedling very carefully with a small spade or digging stick.

The trick is to avoid damaging the roots of the seedlings as much as possible. After the seedling have been dug up, keep seedling in a shade to protect them against sunlight and do not let the roots dry out.

### Diseases and insects control

Look out for any pest and diseases such as dumping off and cutworms. Dumping off is diseased condition of seedlings due to excessive water application and sowing seeds too close to each other. Watering and thinning out seedlings after emergence should prevent damping off from occurring.

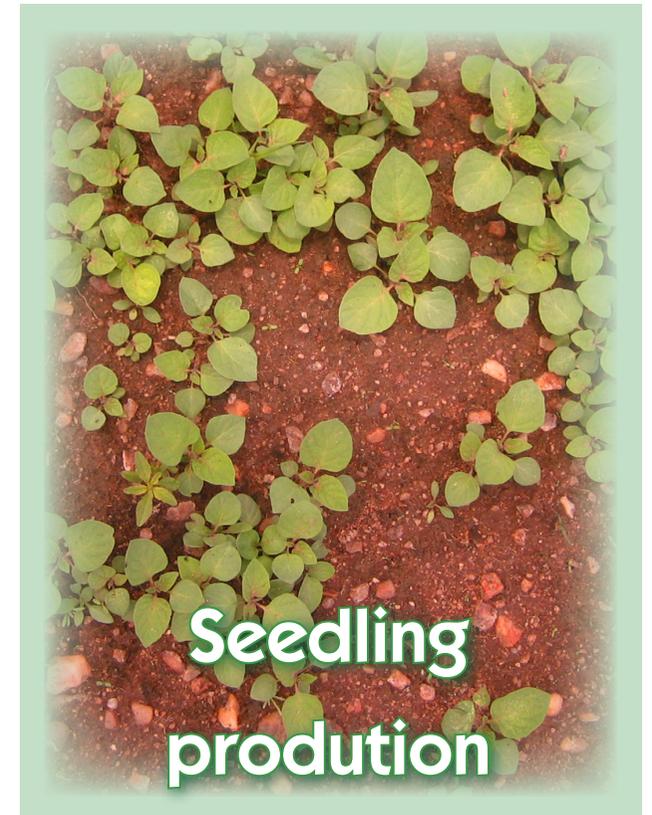
When seedlings appear to have been cut off above soil level, is the sign of cutworm problem. Cutworms can be removed by hand but application of cutworm bait can be used as a preventative measure.

### Acknowledgement

The Department of Agriculture, Forestry and Fisheries acknowledges the Water Research Commission for providing valuable information.

### References

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*Production Guidelines for African Leafy Vegetables, Water Research Commission*



# Seedling production of indigenous leafy vegetables

2015

Published by

Department of Agriculture, Forestry and Fisheries

Private Bag X144

PRETORIA

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agriculture,  
forestry & fisheries

Department:  
Agriculture, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

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### Background

Indigenous leafy vegetable crops are scarce on commercial market however they can be produced easily in own nursery. Choose a place that has good quality soil and closer to source of water for irrigation. The nursery can be partially



shaded or shade can be erected using shade nets, old grain bags, thatch grass or reeds to protect young seedlings from direct exposure to sun.

### Soil preparation

The soil in the nursery should be well prepared into fine seedbed. Regular addition of organic material, particularly compost to nursery soil is the best way to improve soil fertility, characterized by loose, stable and crumb structure. Hard or compacted soil can suppress the seed and results in seed dormancy.

### Planting

Seeds should be sown directly into the seedbeds. Too much irrigation after planting can also delay seed germination due to lower temperatures. Seeds require certain temperatures in the soil in order to germinate.

### Transplanting

Transplant the seedlings to the garden or field when they have three leaves. Seedlings that are too young struggle to take root after transplanting. Seedlings that are too old have developed quite extensive root system in the nursery soil and when they are lifted from the nursery soil, many of the roots are damaged. The root damage causes stress in the plant from which it might not recover. The best time to transplant seedlings is in the late afternoon on a cool day, because this provides the plants opportunity to

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