



HG/TT: AG Ext. 97:10

HOW TO GROW LETTUCE

INTRODUCTION

Lettuce (*Lactuca sativa*) belongs to the family Asteraceae. It is not related to the Cruciferae such as cabbage.

It is a good source of dietary fibre, calcium, iron and vitamins A, B, C and E.

Just a few seedlings planted weekly, will keep the home continuously supplied with this leafy vegetable.

VARIETIES

There are two major types of lettuce; namely Loose-leaf (Figure 1) and Crisp head/Iceberg types (Figure 2).



Figure 1: Loose-leaf varieties



Figure 2: Crisp head varieties

Two common loose-leaf varieties are: Green Mignonette and Bronze Mignonette.

Some common crisp head or iceberg varieties are: Trinity, Trinity Star, Lyra, Emperor and Sahara.

SOIL PREPARATION

The lettuce roots are very thin and delicate, extend over a very small area, and are very susceptible to drying out.

The soil should therefore be well tilled and sufficiently drained but must allow for good water retention.

Lettuce responds well to organic manure and does not tolerate acid soils. Generally to achieve these requirements, mix one handful of well-rotted manure and 5 g (1 tsp.) of hydrated agricultural lime and incorporate in each planting hole.

PLANTING

Lettuce may be planted in a wide variety of containers or on beds, (see factsheets on “Container Planting” and “Growing vegetables on beds”). In a home garden situation, lettuce may also be intercropped with herbs and other vegetables.



Figure 3: Loose-leaf Spacing



Figure 4: Crisp head Spacing

Lettuce seeds take about 4 - 5 days to germinate and are ready for transplanting in 2 - 3 weeks.

If producing seedlings, check the factsheet “Producing Seedlings for the Home Garden”. If purchasing seedlings, select healthy seedlings, making sure they are not too old. A healthy seedling is characterized by:-

- A shoot to root ratio of about 2:1.
- Having about 3 - 4 leaves with the outer leaves being at least 5 cm (2 in) in diameter.
- White roots.

When several plants are planted in the same area, the recommended spacing for crisp head lettuce is 30 cm (12 in) apart within rows and 20 cm (8 in) apart within rows for loose-leaf varieties. The distance between rows should be 38 - 45 cm (15 - 18 in).

Seedlings should be transplanted late in the afternoon. This will prevent the plants from wilting caused by the stress of transplanting.

When transplanting:

- Place one seedling into each planting hole and be careful not to cover the base of the first leaves with soil.
- Ensure the seedling is firmly positioned by pressing the soil around it with your hand.
- Apply a soil insecticide and soil fungicide at the recommended rates after transplanting to protect the seedling in its early stages.
- Keep the plants free from weeds at all times.

IRRIGATION

- Water the plants immediately after transplanting. Thereafter, water daily if there is insufficient rainfall.
- When watering, water at the base of the plant to avoid splashing soil onto the leaves.
- Remember to use clean water to irrigate the plants.

FERTILIZER APPLICATION

- Immediately after transplanting, apply 5 g (1 tsp) of a granular N:P:K fertilizer such as 12: 24: 12 at the drip circle of each plant to encourage root growth.
- On the 7th, 14th and 21st days after transplanting apply a granular N:P:K fertilizer e.g. 20:10:10, at a rate of about 5 - 15 g (1 - 3 tsp) per plant depending on the health of the plant.
- Alternatively instead of a granular fertilizer, a foliar fertilizer can be used weekly e.g. 20:20:20 at a rate of 5 g (1 tsp) to 4 liters (1 gal) of water. Apply 125 ml (1/2 cup) of this mixture to the leaves and root area of each plant at transplanting and weekly thereafter.




PEST AND DISEASES

Integrated Pest Management (IPM) is the best approach to controlling pests and diseases in a home garden. In this method, pesticides are used as a last resort and cultural as well as biological methods are used.

For further information on IPM see the factsheet titled “Integrated Pest Management for Home Gardeners”.

Table 1 highlights common pests and diseases that attack lettuce and recommended methods of control.

Table 1: Common Pest and Disease of Lettuce and Methods of Control

PEST/DISEASE	SYMPTOMS	CONTROL
<p>Leafminers <i>Liriomyza sp</i></p>  <p>Leafminer insects tunnels their way through the leaves</p>	<ul style="list-style-type: none"> • Unsightly tunnels through the leaves caused by feeding of the leafminer. 	<ul style="list-style-type: none"> • Good weed control. • Avoid excessive use of fertilizers. • Use insecticides with active ingredient such as abamectin if necessary.
<p>Leaf Spot</p>  <p>Caused by a Fungi.</p>	<ul style="list-style-type: none"> • Small yellowish spots on the older leaves. • Spots turn brown as the diseased areas spread. 	<ul style="list-style-type: none"> • Ensure there is adequate drainage. • Good weed control. • Use a foliar fungicide with active ingredient example fosetyl-Aluminum if necessary.
<p>Leaf Spot</p>  <p>Caused by a Bacterium.</p>	<ul style="list-style-type: none"> • Greasy water-soaked irregular spots on leaves. • Dark brown to black spots. 	<ul style="list-style-type: none"> • Ensure there is adequate drainage. • Good weed control. • Use a fungicide with active ingredient example Copper Sulfate Pentahydrate if necessary.

HARVESTING

Lettuce leaves may be harvested as needed, however heads are best at 4 – 6 weeks after transplanting. Heads should be harvested by making a sharp, clean cut at the base of the plant.

Unharvested heads left beyond 4 - 6 weeks results in 'Bolting'. This is the premature production of a flowering stem. Leaves of 'bolted' lettuce have a bitter taste.

Prolonged dry conditions, or planting 'old' seedlings can also stimulate the onset of bolting.

Bolting can be controlled by selecting healthy seedlings, watering plants regularly and harvesting the heads at the appropriate time.

Lettuce can be placed in a perforated plastic bag and stored in a refrigerator for up to 14 days. It can be a rewarding experience to successfully grow lettuce to meet your household needs.

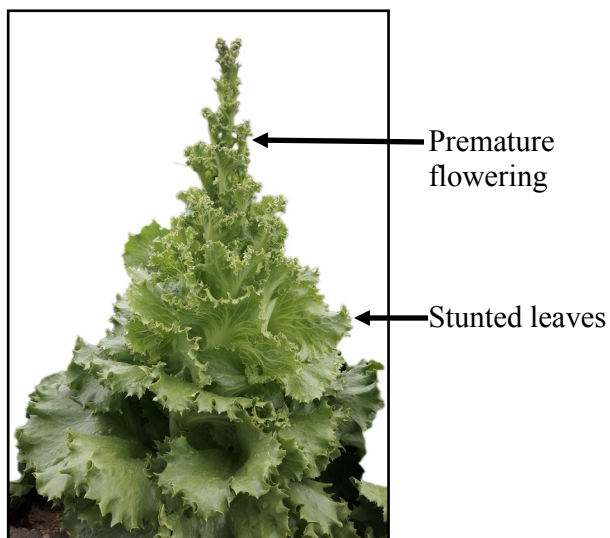


Figure 5: Bolting in Lettuce

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*Published and Printed by
the Extension, Training and Information Services Division
Ministry of Agriculture, Land and Fisheries
Trinidad and Tobago
Revised October 2019*