

Lettuce Farming

Lettuce is a cool season vegetable. It is characterized by a loose leaves and head. It is easy to grow. You can grow lettuce under a limited space even in vegetable garden, sack garden, greenhouse or hydroponically. It is very nutritious and rich in vitamins and minerals. This is the reason why it is widely used as salad. Apart from salad, it is also used in soups, sandwiches, wraps or grilled.

Apart from being nutritious, it is also low in calories which makes the crop good to be used in weight loss programs. The nutritional benefits and health benefits makes the crop have a high demand.



Ecological requirements

- **Temperatures** - Can be grown under wide range of temperatures but a range of 15°C to 30°C is the best
- **Altitude** - Well suited in high altitude areas. Average altitude range of 800 - 2300 asl is the best
- **Rainfall** - Well distributed rains of 400 - 600 mm during its growing period. However, you can water during dry seasons
- **Soils** - Well drained, fertile sand-loam soils rich in organic matter and with a pH range of 6 - 8

Varieties

One of the best lettuce varieties is BRUMA F1 from Royal seeds. It gives good-solid and compact heads. It is also well suited for warm areas.

Others include:

- Butter head - Leaves are broad and forms a solid-compact head
- Leaf lettuce - Has loose leaves which forms small or no head at all
- Romaine - Have cylinder like upright leaves which fold to form a loose head

Raising seeds in a nursery

You can sow the seeds in a nursery first then transplant to a ready bed or sow directly in a ready bed. For a nursery you need about 200g/acre and 300-400g in direct seeding. It is recommended to raise seedlings in a nursery for a good start and break seed dormancy.

To raise in a nursery:

- Prepare a bed 1M wide, dig out weeds and level well
 - Make small drills 1cm deep at a spacing of 25-30cm apart
 - Mix seeds with some soil and sow thinly along the drills
 - Cover with a light mulch and water
 - After 7 days when they have germinated, remove the mulch and make a raised shade 1M high over the nursery bed
 - Drench the seedlings while in the nursery with Pearl 50SC to help control early diseases from Damping off and Fusarium wilt
 - The seedlings are ready for transplanting after 4-6 weeks when they are about 7cm high
- If you sow directly in a seedbed, thin (remove excess and weak plants) after 4 weeks

Planting

1. Prepare the land well- Plough and harrow to a fine tilth
2. Spread well rotten manure at the rate of about 4 tons per acre and dig in. Lettuce responds well to manures
3. Dig planting holes at a spacing of 30cm by 30cm (1ft by 1ft)
4. Put bottlecap (5g) per hole planting fertilizer like MAVUNO PLANTING N.P.K 10.26.10, MAVUNO vegetables N.P.K 20.10.18 or compound fertilizer like N.P.K 17.17.17. You need 50kg/acre
5. Mix fertilizer with soil well
6. Plant a healthy lettuce seedling in each hole and firm soil around the base well
7. Mulch with dry grass then water

Routine field management practices

1. **Weed** - Weed regularly until the crop can be able to get a good ground cover and kill weeds on its own. Lettuce is a shallow rooted crop, weed with care.
2. **Topdress**- Top-dress twice i.e 1 week after transplanting and 4 weeks after transplanting. Use nitrogen rich fertilizer e.g MAVUNO TOP-DRESSING N.P.K 26.0.0 or C.A.N
3. **Irrigation** - To supply enough moisture, you may need to water your lettuce crop especially during dry seasons. You can also apply mulch like dry grass to help you conserve moisture
4. **Crop rotation** - rotate your lettuce field with crops like cereals (eg maize) and legumes (eg beans) to reduce build-up of pests and diseases
5. **Control pests and diseases**

Pests

Some of the common pests include:

- **Cutworm** - It is a very dangerous larvae stage of a moth which cut young stems at the base causing them to fall off and die. Spray with UMEME 2.5EC after transplanting to protect from cutworms and kill if any.
- **Diamond black moth** - Are caterpillars which feed on the leaves. If not controlled, they can cause heavy defoliation of the crop. Use HALT to control
- **Aphids & Cabbage Sawfly** - They suck sap, causing leaves to roll and interferes with head formation and make plant wilt. They also carry virus which cause diseases. Spray with ATOM 2.5EC to control.
- **Root knot nematodes** - Causes formation of galls which block the uptake of water and nutrients. This causes the crop to turn yellow and result in stunted growth

Diseases

- **Black rot** - It is bacteria which is common during warm and wet conditions. The infections is characterized by dark spots on leaves, stems and roots. To control, rotate your field, use clean seeds and plant tolerant varieties. To prevent, spray early with SULCOP DF



- **Downy mildew** - A fungi which causes yellow/brown spots on leaves. Disease is common prevalent in cool,wet weather and affects all stages.Spray early with OSHOTHANE 80wp or CONTROL 70DF



- **Leaf spot** - Appears as small, angular lesions and progresses to larger lesions and necrotic areas, which dry out and eventually collapse. It is a fungal disease and can be controlled with effective fungicides like CONTROL 70DF



- **Damping off** - A fungi wic affects seedlings while in the nursery and eve after you transplant especially if they are crowded. It causes the lettuce to have dark

brown or black rot at stem base of seedlings causing them to fall off and death.
Use MISTRESS to protect and prevent



- **Lettuce mosaic virus** - It is carried by aphids. The symptoms include deformation, yellowing with brown necrotic blotches on the leaves. Control vectors like aphids with insecticides



Harvesting

Most lettuce varieties takes 2-3 months to be ready for harvesting from the time of transplanting. At this time, the hearts are fully developed. After maturity, you can then harvest lettuce for the next 4 weeks.

To harvest, cut heads off with a knife. Remove damaged or old leaves then wash ready for use or for the market.

On average and under good management, you can harvest 4-6 tons per acre

