



29 Lettuce Growing Tips & Tricks

FOR A TEMPERATE CLIMATE

Hello friends!

As I write this little booklet for you, in August 2019, we've been juicing lettuce leaves. The grey winter weather is upon us here in New Zealand, and we have an abundance of lettuce in the garden.

To me, this is a win for the garden—the lettuce needs to be harvested AND a win for us because lettuce juice seems to help keep the body sparking away, like a tonic! Lettuce has a cleansing and repairing effect on the body and mind! That is good! People, at this time in the world we NEED green leaves.

In this booklet, you will find 29 in depth tips and tricks we have used ourselves to sow, grow, harvest and store lettuce over the last 25 years. We have developed 12 gardens in that time, in three different temperate climate countries—New Zealand, Scotland and Australia.

That means 12 different kinds of soil, 12 different micro climates, 12 different seasonal effects on growing lettuce. And we grow naturally, no chemical nasties at all.

We know that you, wise reader, will understand that simply enjoying and eating more natural, green leafy vegetables is a quick and sure way to improve health, and today is the day to work towards improved health!

You cannot fail to notice the wake up calls all around the world. You WILL want to grow some of your own food. Food security, access to food for ordinary people is already starting to be an issue. You CAN grow some of your own food. You CAN buy one packet of organic lettuce seed. You CAN grow in a little bit of soil, if you are lucky enough to have a little patch of ground where you live.

Otherwise, you CAN grow on a sunny window sill, or a verandah or porch outside. You can even make your own free pots. (See below)

Make your own Simple Growing Pot

You can easily make a growing pot using a reusable plastic container, and putting 5-7 holes in the bottom. The best way to do this if you are not strong and do not have an electric drill, is to find a flat piece of wood or similar. I use an old, beat up, bamboo chopping board from the kitchen. Place your container on the piece of flat wood, bottom side on the wood, then get a nail or a screwdriver or similar and push hard to make a little hole in the plastic. Then pick up the container and work the hole a bit bigger with your nail. That's what I do. But my dear husband simply gets out his electric drill and within five minutes he's put holes through many containers!

Now rest your homemade pot on a lid, so the pot doesn't leak all over the table, or window sill. There are many free or recycling things that can be done to grow food. We have tried many different, budget friendly ideas. We are not rich or wealthy in the world's



terms, although all our needs are met, and we have had to start again many times, as God moves us around. I remember the time asking neighbours for their used ice cream containers, and we did get some confused looks. You see, we don't buy ice cream, and most people just throw their ice cream containers away! But I find many growing uses for all sorts of sturdy plastic containers.

Think like a lettuce

Back to our 29 Growing Tips! Once you can think like a lettuce, you will be able to grow something to eat that will improve and maintain your health. Lettuce may not be filling, but remember the green leaves have a cleansing and repairing effect on the human body.

Lettuce is easily eaten by most people, with few reactions or refusals! On the other hand, I have found that not everyone loves to eat raw kale.

Daily lettuce for building up health? Sounds like a good plan for this time in the world.

This is an in depth booklet. I'm sharing all we have learned, so go ahead and settle down for a light reading session. I give you permission to gasp and laugh at my geeky growing behaviour!

Growing for Survival

Here is a story: In one garden, years ago, we were to grow enough vegetables to feed three families living on a farm, year round. The lovely farm owner was older than us, and had lived through the Great Depression of the 1930's. His father kept all staff on the farm through the lean times, by providing ongoing housing, food grown in a large vegetable garden, and meat from livestock on the farm.

Fast forward to 2008, his son, now an older man himself, saw another recession looming, and wanted to develop a large vegetable garden in case the same survival methods became necessary. Well, I love to sow seeds, and somehow, we ended up with 75 strong, healthy lettuce seedlings and we planted them all at once! Aargh, there was so much lettuce ready at the same time! That was before we owned a juicer. And yes, we did make Lettuce Soup!

•One

Sow little and often. As one punnet of seeds starts germinating, I get organised to start another punnet of seeds. The name for this is Succession Sowing. I love to know what I have just sown, so I cut plastic strips from any plastic container or lid, to make plant labels. I use a permanent marker, one lasts for years. On these DIY labels I write: name; variety sown; date sown; seed company, all on these little strips (Geeky huh?)



These pieces of plastic can be cleaned with eucalyptus oil and used over and over again. Birds like to pluck these shiny plastic labels out of the soil, they probably look like a worm!

•Two

For lettuce and every other crop you grow, be thoughtful about **seed quality**. Shopping from seed catalogues or online is a joyful distraction from winter cold and grey. You are supporting a seed company and someone who is passionate about seed. Also, you can ask questions by email or telephone.

We have found quality from seed companies is generally better than packets of seeds



you buy from a hardware store. I don't know why this is, but one of my favourite garden writers, Steve Solomon, who started and built up a seed selling business, said that most of the seed you buy from big hardware stores is not the best quality seed. You see, we home gardeners are just a little drop in the ocean for the major seed companies. Most of these big seed companies sell to commercial growers, and the leftovers are packaged into little packets with glorious photos on the front. I personally have found this is not

always the case. In both Australia and New Zealand the variety of Little Gem lettuce in the photo has always grown well, and was bought from a large hardware store..

•Three

Be thoughtful about the varieties you choose. Think about the end product. Do you

want to harvest a whole lettuce every other day? Or do you want a dozen plants which you gather leaves from over several weeks? This is the sort of lettuce we now like to grow. Do you want a variety of nutrients, colours and flavours? Some lettuces are better in cooler temperatures, some tolerate warmer temperatures, and the odd variety positively relishes the cold. So find a couple of seed companies you like and plunge in and read about the varieties they offer.

•Four

Always grow at least three different lettuces at the same time. We have found this way we always have enough interesting leaf for salad, juicing and giving away, whether we have a new garden, or an existing garden. And seeing the different leaf colour, texture and shapes is joyful to the heart. The simple pleasures in life are best!

Weather extremes are more likely now, whether you think this is due to global warm-

ing, or the opposite – grand solar minimum, or cycles, or volcanoes or geo-engineering! The point is this: Different varieties will shine at different times in the changeable growing calendar. If you are short of cash, buy one packet of mixed lettuce and see what happens. Another rule of life is this: Allowing yourself to do an experiment will banish anxiety and allow you to be curious and open minded. You see, there is no failure, only learning!



•Five

See what your local farmers grow at the nearest farmer's market. Generally what grows for the local farmer will grow for you! And I positively recommend trying my favourite lettuce of all time, grown in 10 different gardens, three different countries! You can find a post about this shortly on vitalforce.org.nz in the Plant Food section.

•Six

Now you have your packets of seed, isn't it exciting?! Lettuce germinates at a really wide range of temperatures. So is an easy seed to get started!



Your little seeds will germinate in any temperature from 10° Celsius (50° F) upwards. Over about 22° C (71.6° F), germination slows to a trickle for me. If you dear reader, are germinating in seed punnets in hot weather, find a cooler spot for your seed punnets. There is no fun in frizzled sunburnt lettuce seedlings.

•Seven

Use light textured seed raising mix with no big lumps! Please don't use clumpy soil from the garden! Do use garden soil if it is very light and fluffy and mixed with fine compost. Remove all pea sized lumps of bark or stone. *Think like a lettuce seed:* Would you like to move a boulder lying on top of you?

Scoop seed raising mix, or fluffy fine compost into your seed pot. Level the surface by giving the pot a few taps on a flat surface and smooth the surface with your hand, because, well because it feels nice to touch the mix!

Now, press your thumb into the mix at regular intervals, about 2cm apart. Now you have little planting holes for your seed. Can you see?



Another reason for pressing the light seed raising mix is to give water capillarity. I learned this from Steve Solomon. Basically you enable the seed raising mix to absorb water from the bottom of the container (through those little holes in the bottom of the pot). We found this saves a lot of heartache, germination is much more successful for all seeds I have tried. Steve Solomon also uses this technique for outdoor seed sowing.

So, place a seed in each little hole, then gently cover over with a light covering of seed raising mix. I like this way because in the past by simply sprinkling seed on the punnet, I end up with hundreds of lettuce seedlings. This way, the seedlings pop up and in regular spacing are easy to transplant later on. Easy!

•Eight

Lettuce needs light to germinate. So put your seed pot or punnet in a tray with a solid bottom and place this arrangement in a nice light place. Anywhere will do. Wow, when I think back, I have placed germinating trays all over the place! One year, I placed the seed trays in a baby's play pen. So the little ones could crawl around and the seeds could germinate undisturbed!

And here's a little secret of mine: I use new cat litter trays, as the containers to place my seed pots or punnets in. But in the past I have used all sorts of things! One memorable year, I used plastic bags to line the inside of shallow bases of cardboard boxes. I had cut the cardboard boxes down to about two inches high. This worked really well. Oh, and avoid covering your seed tray with any light blocking material. If your weather is really dry, you can wrap the damp seed tray with the pot or punnet of sown seed in a clear plastic bag. Works well.

•Nine

Moisture is a Must. Lightly mist your precious sown seed punnets with water to stop the seed raising mix crusting over. *Think like a lettuce seed:* Would you like to be suffocated by a crusty ceiling? I keep a small hand held spray bottle especially for misting seed punnets. Buy one with a strong looking handle. The cheap ones, around \$2 or \$3 will work, but we have found the spray mechanism fails after several uses. So hard as it may be, buy one that is mid range price. Actually, I have two of these spray bottles. One is for misting bread as the dough rises, and the other is for misting sown seed, and baby seedlings.



•Ten

Provide shade like this cloth in the photo, when sowing and growing directly outdoors in warm or cooler seasons. Sometimes a light branch with leaves on, from tree trimming, can be enough to provide shelter and shade for the outdoor lettuce row.

•Eleven

Avoid the hottest weeks of summer for sowing lettuce (generally that's January/February in the temperate southern hemisphere and July/August in the northern hemisphere). And the coldest weeks of winter whatever that is at your place. I do not have any experience growing in gardens that experience a monsoon season.

•Twelve

For a low tech **summer sowing solution** try this: I hope you can make sense of the way I explain this! Take a seed tray, the type with a lattice bottom. Turn the tray upside down and press the edges of the tray into freshly dug soil in a corner of a garden.

Now lift the tray off. There is now a rectangular outline on the soil. Inside that rectangle, sprinkle seed raising mix. Now draw a finger through the prepared patch, at regular intervals to create mini "rows". Press your finger down the row to firm the soil – this will exclude larger air pockets and allow moisture in the soil to gather around the freshly sown seed, and the moisture will encourage germination.

Sow lettuce seed evenly, over this little patch, every 2 centimetres or so, just as you do in a seed punnet or pot (above).

Cover the mini rows lightly with fine soil or compost or seed raising mix. Lightly mist the sown rectangle area with a spray bottle kept just for watering.

Now place the seed tray again upside down over the sown patch, and weight down with small but heavy stones on each corner to keep curious animals away.

Once the seeds begin to germinate, you can lift the tray off, in the mornings for light, and place over in the hottest time of the day.

The seedlings are ready to transplant when they are starting to crowd each other out. This technique provides plenty of healthy strong seedlings, doesn't require infrastructure or strength to install infrastructure, such as frames and covers.

•Thirteen

Back to our seed punnets. Once the first seedlings start to emerge, put your punnets somewhere with good light, as the seedling will bend to find light and that's one reason for lanky weak stems. Keep away from burning heat though. A gentle breeze (even a fan)



will help the plant form sturdy stems. I put my punnets outside in the mornings and bring them inside in the evenings at this stage.

Just went to check on the babies you can see in this shot, and they are doing fine in the breeze and cloudy weather.

If you spaced your seeds out about every 2 centimetres, you can just grow them on until they are ready to plant out (see Tip 14).

But if your seedlings are close together or suddenly shoot up with a lanky tall stem (that usually means lack of light) —then you can indulge in some Potting On.

Potting on, simply means gently easing the baby seedlings from their first home, into a second container so they have more room to grow. To do this, you first prepare another container with holes in the bottom.

Sprinkle some compost mixed with some fine soil, or potting mix with large lumps taken out. Now use the end of your permanent marker to ease a seedling out. Gently place it in the new container and sprinkle more fine mix around the roots and stem.

Think like a lettuce: Leave the neck above the soil!

There is a great reason for indulging in Potting On: Apart from being a therapeutic activity (maybe something like adult colouring in), lettuce leaves love to entangle themselves. If your precious seedlings are close together, then separating them is a delicate and frustrating operation. Take the sensible way I say! Let's put it this way, I gave up wearing jewellery and untangling necklaces a long time ago, I don't want to go back there having to untangle lettuce roots and leaves!



Here is a photo of seedlings which have stayed in their original sowing punnet. They are totally fine to be transplanted into the garden at this stage. Their second set of true leaves are starting! Yes, they look a little straggly, but as long as you follow Tips 15 and 16 they will be safe and sound.



In this photo , you can see some seedlings which have been potted on to give more room for the lettuce seedling to develop. If you look carefully, you can see this rectangular pot or punnet is split into six different compartments. The advantage? Roots of each seedling stay separate. No untangling of rootlets!

•Fourteen

When your seedlings start to get their second true set of leaves and are looking quite sturdy, as in the photo above,, you can start to think about planting out. It's completely okay to use only the strongest seedlings, as many as you need, and gift the rest to a micro salad, or neighbours, friends, the compost bin or pile! Or just eat them right then and there!

•Fifteen

If you have a slug problem, now is the time to don a head lamp at night and go slug hunting at night, before your precious seedlings are planted out! Or the next day those chubby slugs will be happily sleeping off their lettuce feast.

•Sixteen

The day has arrived; you are going to transplant your seedlings into their forever home! Use something not much bigger than a permanent marker end to ease your seedlings out of their punnet or seedling bed in the garden, and keep roots intact as you can.

•Seventeen

For best growth, think cool, temperate weather to grow on. Lettuce is not a hot weather plant, even though we think of lettuce as a summer vegetable. So if you want lettuce all summer long, firstly read seed catalogues and find varieties that say "less likely to bolt in heat" or words to that effect.

•Eighteen

If your air temperature tends to go above 20° C (68° F), you will need to do a little extra: When the weather warms up regularly, throw something light over the lettuce plants. You can use clean old netting curtains or look for light plant cloth. (below).



A better solution is a light infrastructure to throw your light covering over. This is an exciting project to search and think about.

We tend to use a combination of fencing wire bent into hoops (above), and plastic pipe similarly bent into hoops (photo at left). That does require some physical strength. Another idea for us with less strength, is old hoses, cut into

lengths, and something sturdy like a stick, pushed into the ground on either side of the growing bed, then slip the lengths of old hose over the sturdy stick.

•Nineteen

How is your water? Don't get disheartened if the water you use in your garden contains chlorine. If your water is on a town or city supply, likely it DOES contain chlorine and other water purification chemicals.

The chlorine will injure and kill the life giving microorganisms in the soil.

Also, research shows that green leafy plants will suck up heavy metals from the soil and deposit those unwanted minerals, like cadmium and uranium in the leaves.

If you use a hose outdoors, you can buy a filter. These filters look like a sausage with a hose fitting on either end. These are around the \$50 mark (in New Zealand) and will remove chlorine and some other nasties. Another solution is to run the water into a large container, and leave it for several hours for the chlorine gases to seep out of the water.

•Twenty

Water, water, water. In one hot dry summer season climate we lived in, the owner of a large organic market garden told us the most important factor in growing lettuce outdoors, in the soil, was to keep the water "up to the plants".

In the summer he watered once in the morning and once in the evening. And said they would even like a third watering if they could get it!

But don't do this with your baby seedlings still in pots, unless they can drain freely! Too much water for seedlings can drown them!

•Twenty One

Lettuces are like traditional English scones. Both do well when they are quite wet and quite close together.!



If you look carefully in this photo you can see that my thumb is near the base of one lettuce and my index finger on the base of another lettuce plant.



And this is what the plants look like, grown this close together, and ready to begin harvesting.

One grower we worked with in the Highlands of Scotland planted all his lettuces no more than 15 centimetres apart on low ridges,. He said by the time leaves of neighbouring plants were touching, they were of a good size and flavour to harvest and sell.

The ridges ensured he was planting into warmer soil, as you can imagine warmer air can penetrate a low ridge easier than a great expanse of soil.

•Twenty Two

If ants are a problem in your garden, toss the seeds in **chilli or cayenne powder** before you sow them and your seeds will be stolen no longer.

I'll never forget the day I was sowing lettuce seeds in a new garden. I turned back to look at my efforts, and all I could see was a short line of creamy lettuce seeds dancing across the garden. I thought the heat of the summer sun had got to me!

Then I saw the black ants against the dark soil. By the time I'd gone inside to find the chilli powder and come back outside again, the entire row of lettuce seeds was moving away in a slow wriggly dance on the backs of ants!

•Twenty Three

In one garden, we had a heavy soil. This was great learning, because our lettuces struggled.

When heavy soils are wet, the lettuce roots easily rot, and there is little air space for the roots to complete their magic so your plant can grow.

When soils with higher clay content dry out, there is still little air space and the roots are trapped and rapidly dry out too. Result: dead lettuce.

Heavy soil usually means magnesium is holding the soil particles too closely together.

Calcium needs to be added. Garden lime is a good source of calcium for the soil. A finer grade will break down more quickly than granules. But add with care! Not too much all at once.

We have found a soil test useful. Do your research. Steve Solomon writes all about how to understand soil, and what to do. For two of our gardens I made up a "fertiliser" mix, based on Steve Solomon's books. The gardens were amazing. Highly recommended! In the last two gardens I have been using some highly researched and natural soil additives from Environmental Fertilisers in Paeroa, New Zealand.

If you live and garden in New Zealand, you may have heard of Kaye Baxter from Koanga Gardens. Well, when we were moving to New Zealand from Australia, I researched what sort of soil additives were available in New Zealand, and found Kaye Baxter was recommending Environmental Fertilisers. Kaye has 35+ years experience of growing in New Zealand, so her recommendation was good enough for me!

●Twenty Four

Feed your seedlings with a weak liquid feed, about 7-10 days after germination, whether indoors or outdoors.

Franchi Seeds in Italy, one of my favourite seed suppliers for the past 15 years, advises growers to start giving seedlings a little extra nourishment about a week after they have germinated.

As most of our gardens have been inland, we like to use either seaweed based tonic/feed, or a fish emulsion (stinky!). And feed every 2-3 weeks after that.

For a product recommendation, for both Australia and New Zealand, you can't go far wrong with Seasol. You want to look at the ingredients in a seaweed fertiliser/tonic. The word you are looking for is **"alginate"**. Many formulas have already had the alginate extracted for use in other industries. But YOU WANT the alginate, this is the magic ingredient in seaweed for growing strong roots and thus strong plants.

●Twenty Five

Help your lettuces grow quickly for sweet succulent leaves.

Slow grown, under fed and under watered leaves will be lacking flavour and nastily bitter (bitter is good, but not this kind of bitter).

If you water and feed, your lettuce will grow quickly!

Of course there are other factors that are vital – the soil. You can't just dig a hole in hard soil, plant your seedling and expect a beautiful lettuce. You just can't! Soil needs to be prepared by digging, and then at the very least high quality compost needs to be added. We have found that the low cost composts in bags at supermarkets, are not good for food gardens. These cheaper products are really only suitable for mulching shrub beds. When it comes to compost – do your research in your area.

Perhaps you have moved to a new area and starting a new garden. Research, ask neighbours, growers. I'm not very good at this, so learn from my mistake and ASK!

Here's a useful soil hint! A little **used organic coffee grounds** mixed into the soil, up to about 10% of the growing area can stimulate higher antioxidant levels in the lettuce leaves.

An entire study was completed on lettuce and used coffee grounds and the 10% rule produced a good result. Soil health is a wonderful art and science. And very exciting! This is something to explore.

•Twenty Six

Think like a lettuce, would you like to be suffocated by being planted too deeply? In a very early garden, we learned quickly that lettuces like to have their necks above the soil line, especially in a heavier, colder soil.



Many lettuces will be lost to rot if their necks are planted too deep in the soil. This is true even for lettuce seedlings transplanted into larger indoor pots.

Here's a photo of a lettuce seedling planted too deeply. Yes, I did this just for you! What's happening here is the growing tip of the lettuce is below the soil and so the plant cannot grow. Can you see the plant is dying?

Some varieties don't like the damp and cold. Go back and read your seed catalogues! Or, keep it simple and plant more than you need. There are hundreds of lettuce seeds in one packet, so grow more than you need, and if you lose some seedlings, you still have plenty to grow on!

•Twenty Seven



Get out there and enjoy harvesting! I love vegetables and find them as attractive as flowers. But for a food garden, you actually need to harvest your vegetables!

So at least weekly, if you are growing gathering lettuce, you need to harvest the outside leaves.

The more you gather, the more the plant will grow. Here is a photo showing where I have been harvesting leaves from this lettuce plant.

Charles Dowland in his fabulous gardening books, tells how he harvests the "teenage"

leaves, the circlet of leaves just inside the outer

leaves. The outer circlet of leaves are usually older, tougher and of poorer quality, especially for retail mixed lettuce bags. Of course, fresh is best and allowing 5-10 minutes to harvest leaves just before your meal is the best of all!

•Twenty Eight



Pull your lettuces out when they start to put a seed head up! If you sow a little and often, you will have fresh seedlings ready to go in, and you can grace your compost with the spent lettuce plant. Be strong and say "good bye" to the plant!

And the plant can say "hello" to the compost heap.



•Twenty Nine

Storing lettuce. My daughter learned this trick from her grandmother, who learned from her grandmother! Wow, that's five generations!

1. Bring the lettuce near to clean running water.
2. Run some water into a large bowl, enough to gently swish the lettuce leaves in to remove any little bits and pieces.
3. Lay out a clean tea towel (if you use a highly fragrant washing substance then use kitchen paper towels) and then lay the leaves out on the towel to drain.
4. Now gently roll or fold the towel and pop the whole thing gently into a bag and store in the fridge. This way fresh lettuce greens will keep until you are ready for them. And eat them up – there's more growing in the garden!!

Thank you so much for taking the time to read our 25 years experience with sowing, germinating, transplanting, growing and harvesting lettuces. Hope you found ONE thing useful to you in your vegetable growing journey!



References you might find useful to study:

1. Life cycle assessment of organic versus conventional agriculture. A case study of lettuce cultivation in Greece

<https://www.sciencedirect.com/science/article/pii/S0959652615013025>

2. Accumulation of Heavy Metals in Vegetable Species Planted in Contaminated Soils and the Health Risk Assessment

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4808952/>

3. Carotenoids of Lettuce (*Lactuca sativa* L.) Grown on Soil Enriched with Spent Coffee Grounds

<https://www.mdpi.com/1420-3049/17/2/1535>

4. Spent coffee grounds improve the nutritional value in elements of lettuce (*Lactuca sativa* L.) and are an ecological alternative to inorganic fertilizers

<https://www.sciencedirect.com/science/article/pii/S030881461930010X>

5. Antioxidants in Italian Head Lettuce (*Lactuca sativa* var. *capitata* L.) Grown in Organic and Conventional Systems under Greenhouse Conditions

<https://onlinelibrary.wiley.com/doi/full/10.1111/jfbc.12025>