

MY
**HOME VEGETABLE
SEED-STARTING & SEEDLING-RAISING**
ADVENTURE

During the first coronavirus lockdown

by Denis Klicic

HOW RAISING MY OWN VEGETABLE SEEDLINGS AT HOME HELPED ME
GET MORE & FASTER PRODUCE THAN EVER BEFORE

To my wife Petra...
Thank you for reminding me
that I need to finish the things I start.

Copyright © 2021, Revised Edition © 2025 by Denis Kličić.

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law.

For permission requests, write to the author at mail@gardeningnoob.com

Denis Kličić
Gradnikova cesta 8
4260 Bled
Slovenia
European Union

<https://www.gardeningnoob.com>

Why I Was Failing with Certain Vegetables for Years – And How I Unknowingly Solved It with Vegetable Seed Starting

Hi there,

I am Denis, the Gardening Noob. When I first started growing my own food, I thought I had it all figured out. I believed that all I had to do was sow the seeds, then water the plants, and wait for the harvest...

That approach worked well enough with fast-growing and quick maturing vegetables like beans, peas, lettuce, chard, and zucchinis. But when it came to long-maturing and heat-hating vegetables, I got nowhere, season after season...

How I Got Trapped by Tradition and Didn't Even Realize It

At the time, I was growing vegetables in an allotment that was part of a local community garden. The soil there was plowed once per year. This plowing is a long-standing Slovenian tradition that typically happens toward the end of April. It is meant to loosen up the soil and prepare it for planting and kind of gives green light to sowing.



Figure 1: This is the allotment where I grew most of our vegetables for several years. My plot is at the front of the picture and measures about 100 square meters.

I love traditions, but this one has its flaws. It does not account for vegetables like cauliflower, cabbage, kale, and leeks, which need a very long growing period. Nor does it help crops like broccoli, lettuce, rutabaga, or kohlrabi, which hate the scorching late-spring and summer weather...

So, by the end of April – when the soil was finally plowed and ready, and I could finally start planting the seeds – I was already over a month behind. And it showed. The plants I should have started weeks earlier were forced to fight through the summer heat and drought. They struggled to grow.

No wonder then that after months and months of effort, all I would end up with were two undersized cabbage heads and a sad little cauliflower – despite planting dozens of seed bags.



Figure 2: This is how most of my brassicas looked before the coronavirus gardening season – small, struggling, and beaten up by pests. I photographed this broccoli in mid-July 2019, three months after sowing, at a time when it should have been just about ready for harvest. As you can see, it was far from that. Interestingly, some of the brassicas bounced back in autumn when the weather cooled down – and even managed to produce a late harvest.

Yet, for years, I never realized my mistake. In fact, the more I failed, the harder I tried to fix it – and the deeper I got stuck in the same failing pattern. Each season, as soon as the soil was plowed, I rushed out to the allotment and immediately sowed the seeds of the vegetables I had failed with the most in the previous seasons. And each season, I told myself that this would be the year it finally worked.

But of course, it never did – which reminds me of that quote often attributed to Albert Einstein: Insanity is doing the same thing over and over and expecting different results.

How Fear During Lockdown Finally Pushed Me to Change

Then the lockdown happened, and the world felt like it was falling apart. The country shut down literally overnight. My job went on pause. The streets were like ghost-towns. The shelves in the stores were half emptied. People were worried – and I was too. My wife was three months pregnant, and all I could think about was how to keep us safe – how to make sure we would not run out of food.

That fear lit a fire under me. It forced me to act and come up with a backup plan. And the backup plan I came up with was to grow our own food – faster and on a bigger scale than ever before. The only problem was that the allotment was still months away from being ready. That is when I remembered the idea I had been pushing aside for too long. The one thing I could start right away: vegetable seed-starting.

How I Found the Solution I Had Been Searching for All Along

And that is exactly what I did. With plenty of time on my hands, I threw myself into it. I had started a seed or two in pots and cell trays here and there before, so I kind of knew what I needed to make it work. Once I had everything ready, I started planting seeds. Those seeds soon sprouted, and despite all the setbacks I experienced, most of them eventually grew into seedlings that were strong enough to transplant. I moved them to the allotment shortly after the soil was plowed. And from then on, their growth exploded.



Figure 3: And this is how my broccoli looked during the coronavirus gardening season—strong, healthy, and ready for harvest. I photographed it toward the end of June. I grew these from seedlings I started on the balcony, just the way I describe in this e-book. The difference is obvious.

Suddenly, for the first time ever, I was harvesting heads of cabbage, kohlrabi, florets of broccoli, and leafy greens like kale and lettuce – by the end of spring!

It's funny how life sometimes nudges you in the direction you need to go, even when it feels like the opposite is happening. What started as a moment of fear turned into one of the most transformative experiences in my gardening journey.

Ready to See How I Did It?

In the rest of this e-book, I will take you through my entire “coronavirus” vegetable seed-starting adventure – what I did, what worked, what did not, and what I learned along the way. You will see how I went from years of failure to one of my best seasons yet. and how you can use those lessons to grow stronger seedlings and enjoy earlier, more abundant harvests yourself.

The Adventure Begins...

So, let's start from the beginning. What did I do first? How did I plan the season? What did I use, and when did I use it?

From the first sketches on paper to transplanting the seedlings – and everything in between – I will walk you through the full adventure, step by step...

How a Sketch Became the Backbone of My Coronavirus Growing Season

I have always been more of a spontaneous type – never one to overthink or plan ahead. But as I have gotten older, I realized that planning, visualizing, and thinking things through are not just useful, they make life easier. They help me reach my goals faster and with far less frustration.

So, when I decided to raise my own vegetable seedlings during the "coronavirus" season, it only felt natural to bring that planning mindset into the garden too. The first thing I did was sit down, grab a pen and a piece of paper, and start sketching my vision for the garden that year.

I began by outlining the borders of my allotment. Then I added all the garden rows. Next, I started filling in the crops – different vegetables and herbs I wanted to grow. I even factored in companion planting, adding crops that grow well side by side.

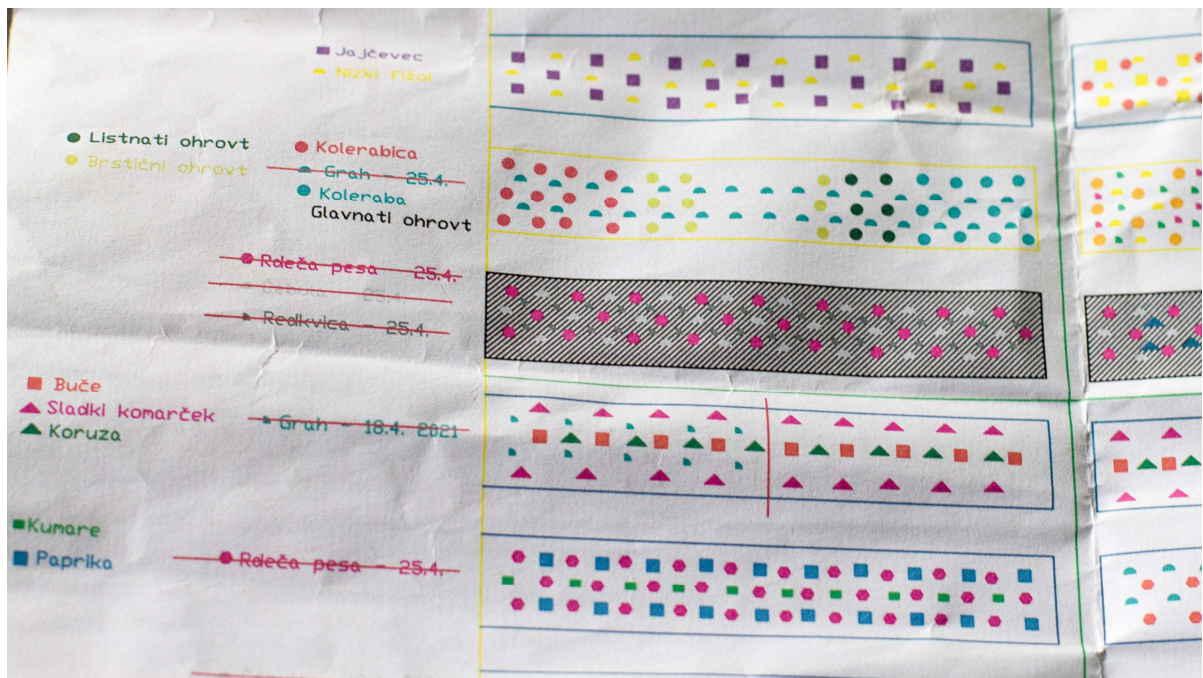


Figure 4: I hand-sketched the vegetable garden blueprint for the coronavirus season. But for the 2021 season, I went digital and created it using CAD (Computer-Aided Design) software. Never mind that it's written in Slovenian language.

It took some time, but I enjoyed the process. And once I finished the sketch (which I now call my vegetable garden blueprint), I realized it had answered some essential questions:

- What vegetables (and how many of each) do I want to grow – and more importantly, harvest?
- Where in the allotment should each vegetable go?
- Which vegetables will I direct-sow?
- Which ones will I grow from home-raised seedlings?

That single plan shaped everything that followed. First, it helped me create a complete seed list for the season. And second, because I sketched everything to scale – including bed sizes, plant spacing, and walking paths – I was able to figure out exactly how many seedlings I would need to raise for each type of vegetable.

Why I Now Make a Vegetable Garden Blueprint Every Winter

Later on, I discovered that seasonal blueprints like these have long-term value too. They become a visual history of the garden – something you can always refer back to when planning crop rotation. Since different vegetable families need to be moved around each season to prevent pests and diseases, this simple sketch becomes an incredibly helpful tool – not just for planning, but as part of an overall pest and disease prevention strategy, year after year.

I now plan my vegetable garden this way every year – always during winter. I find it is the perfect time to reflect, plan ahead, and get truly prepared for the season to come. It is my compass for the season – quietly guiding every decision I make in the garden.

The list of essentials

Once I had a clear vegetable garden blueprint in front of me, it was time to figure out what I would actually need to start planting seeds and growing seedlings. I compiled a list of everything I needed to move from planning to planting.

Luckily, I wasn't starting entirely from scratch. The season before, I had managed to raise a few tomato, squash, and zucchini plants in pots – and that experience helped me more than I expected. It gave me just enough of an insight into the whole seed-starting process that I didn't waste much time wondering where to begin.

Here is what I ended up putting on my list of essentials:

- Seeds,
- Potting soil,
- Fertilizers,
- Pots, trays, and saucers,
- A south-facing outdoor area,
- A miniature greenhouse or cold frame,
- Some indoor space,
- Miscellaneous items.

This list became my starting point – the fertile ground that would soon support the start of the first seeds of the season. In the next section, I will take you through each of these essentials in more detail.

Seeds

The first item on my list was seeds. With the help of my vegetable garden blueprint, I made a complete list of all the different vegetable seeds I would need for the upcoming season. Then I went through my seed inventory to see what I already had and what I still needed to buy. Once I identified the missing ones, I went online and placed an order.

One of the smartest things I did here was choosing organic seeds from reputable sellers. While these are usually more expensive, I have found their germination rates to be noticeably better – well worth the extra cost.



Figure 5: It did not take long for me to realize one big advantage of home seed-starting: I was not stuck with whatever the local nurseries were offering. I could grow rare or unusual vegetables – many of which are hard to find and, when you do find them, can be expensive.

A Word of Caution.

When it comes to seeds, there are a few things you should keep in mind:

- **Organic seed packets often contain fewer seeds** than conventional ones – especially if the variety is rare or unusual.
- **Even top seed companies can produce "bad batches"**. These may have poor germination rates, mislabeled seeds, or otherwise low-quality contents. I once thought I was growing broccoli but ended up with arugula.
- **Not every seed you plant will turn into a harvest**. Some seeds don't sprout at all. Some sprout but die off as seedlings. Others make it through the seedling phase, but only to be eaten by bugs, voles, slugs down the line.

That is why I never put all my eggs in one basket. I always buy more seeds than I think I will need. I order from multiple producers, and I choose different varieties of the same vegetable.

As the saying goes, there is safety in numbers – and when it comes to seeds, I believe that wholeheartedly. Spending a few extra euros (or dollars) up front is a small price to pay to avoid ending up without seedlings. Or without a harvest at all.

Potting Soil

One of the first things I had to decide on was what kind of soil I should use to grow my seedlings. I was pretty much in the dark here – I had zero experience when it came to potting mixes, substrates, or anything soil-related.

The season before, during my first small-scale experiment with growing seedlings at home, I used ordinary garden soil to raise a few tomato, squash, broccoli and zucchini plants. It worked well enough, but this time I decided against it. My next best option – at least the one I had immediately available – was compost. But when I checked it, I realized it was not fully broken down yet, and sifting it through a sieve would only slow me down – something I couldn't afford with everything else I had to prepare.

Then I considered making my own potting mix. That would mean buying all the ingredients, mixing them in the right ratios, and hoping my seedlings would actually grow in it. But given my lack of experience – and how tight my schedule was – it quickly became clear that this option just was not practical. I needed something ready to go. A turnkey solution, so to speak. So, I kept digging, and I soon came across an organic, peat-free substrate designed for growing vegetables and herbs.

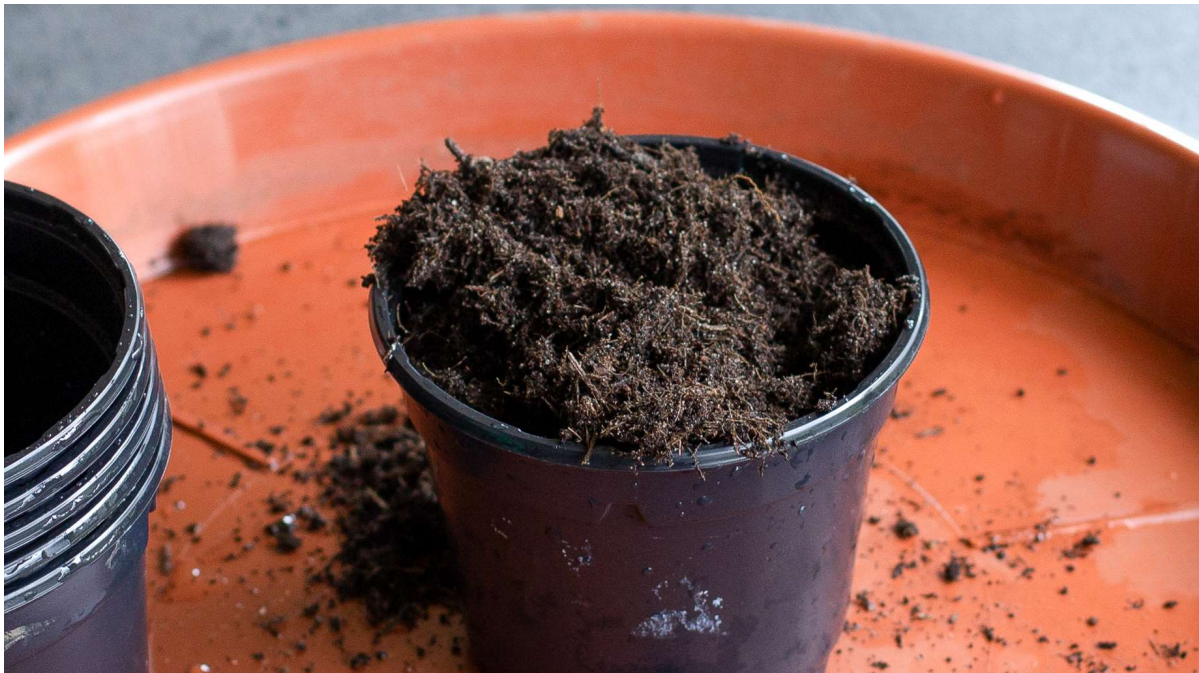


Figure 6: The potting soil I used that season worked well—most seedlings seemed happy growing in it. I also liked the fact that it was organic.

The mix contained compost, wood fibers, spelt husks, coco husks, and other organic plant nutrients. It seemed promising, so I ordered it. Looking back, I think it was the right call. The substrate turned out to be a solid growing medium for my home-raised seedlings. The only downside was its relatively poor water-holding capacity – but more on that later.

Other Soil Options I Considered – And the One I Wouldn't Touch

Of course, you do not have to use bagged potting soil. There are other viable options too:

- High-quality, fully composted organic matter can work beautifully. It is rich in nutrients and can support strong seedling growth, but only if it is fully broken down. Like I mentioned, mine wasn't.
- Garden soil or molehill soil typically does not contain enough nutrients to support rapid seedling growth, but could still work if your soil is rich in organic matter. If you do use it, be prepared to fertilize your seedlings more often than not.

What I never recommend is using bagged soil that is not specifically designed for food gardening. I would stay away from the so-called "universal" soils, decorative plant soils, or potting mixes for indoor houseplants...

You see, these blends often contain dangerously high levels of heavy metals (like lead, arsenic, zinc, copper, mercury, and nickel) which can accumulate in edible plants and be harmful to your health over time.



Figure 7: The label on the bag can tell you a lot. It is more than fine print. It is your first line of defense against harmful ingredients that don't belong in a vegetable garden.

Pots, trays and saucers

When I first started, I had a small collection of pots and trays from previous seasons. Most of them came with vegetable seedlings I had bought at local nurseries in the past. Those were enough to get my first batch of seeds in the soil. But it didn't take long before I ran out and needed more...

So I looked into what was available and decided to buy the following types, sizes, and shapes of pots, trays, and saucers:

Square Pots



Figure 8: Square pots – each one is 8 cm (3.15 inches) tall and 6.5 cm (2.5 inches) wide.

I did not like square pots at first. They looked too small, and I worried they wouldn't give the plants enough room to grow. My initial test – where I planted three or four seeds in each – confirmed those fears. The seedlings sprouted but quickly started to struggle due to lack of space.

I was ready to write them off but decided to try again – this time planting just one seedling per pot. That made a big difference. Even for vegetables that typically need more space, the results were much better. That said, these pots still have a few downsides. The soil in them dries out very quickly. And unless you use them with matching saucers or trays, they are awkward to move around. They tip over incredibly easily.

Round Pots



Figure 9: Round pots – each one is 7.5 cm (3 inches) tall and 10 cm (4 inches) wide.

If I had to choose just one type of container for raising seedlings, it would be round pots. They hit the perfect balance. They are just the right size – versatile enough to work for almost anything I wanted to grow.

At first, I used them for just about everything – from lettuce and basil to peppers. These days, I reserve them mostly for bigger and longer-maturing vegetables like brassicas (cabbage, kale, broccoli, cauliflower, Brussels sprouts, and kohlrabi), as well as zucchini, squash, peppers, tomatoes, and eggplants. Their size gives plants enough space to grow and develop strong roots – even when I grow more than one seedling in the same pot. Another benefit is that they don't dry out as quickly as smaller or shallower pots do.

Rectangular Trays with Four Cells

The cells in these rectangular trays are wider but shallower than the round pots I mentioned earlier. While they work well for many vegetables, I stopped using them for larger or long-maturing crops – the limited depth just does not give the roots enough vertical space to develop properly.

That said, I still like these trays and use them frequently. They are lightweight, easy to carry, and great for raising leafy greens like lettuce, chard, endive, spinach, and chicory, as well as basil, leeks, chamomile, and all sorts of garden flowers.



Figure 10: Rectangular trays with four cells – each cell is 6.5 cm (2.5 inches) tall, 8.5 cm (3.3 inches) long, and 6 cm (2.3 inches) wide.

The one major downside? They dry out fast.

Just like square pots, they lose moisture quickly – especially in warm, sunny weather. You really have to keep a close eye on the soil, or your seedlings can start wilting and die off completely if not watered in time. On top of that, these trays are made from thin, soft plastic and tend to break easily, especially when handled often or exposed to the sun for too long.

Large Clay Pots

Most of the vegetable seeds I sowed – whether in square or round pots or in rectangular trays—sprouted and developed into healthy seedlings. But parsley was a different story. No matter how many times I tried, the seeds just wouldn't germinate. It didn't matter whether I kept the pots indoors or outdoors. It didn't matter how often I watered. The result was always the same: nothing.

After thinking it through, I realized that parsley seeds likely need consistently moist soil to germinate – something that is hard to maintain in smaller pots. That might explain why none of my earlier attempts had worked.

So, I decided to try again – this time using much larger clay pots to hold more moisture and keep conditions more stable. It took a while, but this time it worked. The seeds finally sprouted, and I ended up with more parsley seedlings than I needed.



Figure 11: The large clay pot did the trick when it came to parsley. After countless tries and unnumbered planted seeds, the sprouts finally came out of the ground. It measures 22 cm (8.7 inches) tall and 25 cm (9.8 inches) wide.

Round and Rectangular Pot Saucers

Once the first seeds sprouted and I started watering the seedlings, I realized I had a problem. Every time I watered them, the balcony quickly turned into a muddy mess. Dirty, soil-colored water leaked onto the floor, staining the tiles and forcing me to mop up constantly.

The issue? I only had a few saucers – some kindly passed down from my mother-in-law – and they weren't nearly enough for all the pots I was using. So, most of the seedlings ended up sitting directly on the balcony floor with nothing underneath to catch the excess water.

After a few frustrating cleanup sessions, I decided enough was enough and bought more saucers—lots more.

Suddenly, watering became a breeze. The overflow stayed contained, and there was another unexpected bonus: saucers made it much easier to move multiple pots at once. Instead of carrying each pot by hand, I could lift or slide a saucer with several seedlings on board.



Figure 12: Pot saucers do not just keep the balcony clean, they also make it easier to move seedlings around. Definitely a must-have.

I ended up using both round and rectangular shapes. But whenever space is tight, I always go for the rectangular ones—they make the most of every inch of available area.

A Note on Plastics

I should mention that I am not a big fan of plastics. This material takes a long time to break down (if it breaks down at all), and its production adds to the world's growing carbon footprint. So, if possible, I always prefer to keep it out of the garden.

But at the time, I was on a tight schedule – the second half of March was already underway, and I needed suitable growing containers right away. Waiting was not an option, so I decided to go ahead and purchase what was available.

I have lost a few of the containers I bought back then, but to my surprise, most of them held up well over multiple seasons. The round pots, especially, turned out to be very sturdy. I still have most of those, and I have been reusing them again and again. So while I still believe plastic does not belong in the garden, I have come to see that durable, reusable containers are at least a more responsible choice.

And if you can get used ones from friends or family who still buy seedlings, even better. It is a simple way to keep plastic in use – and out of the landfill.

South-Facing Outdoor Growing Spot

The idea of raising my own vegetable seedlings had intrigued me ever since I started growing vegetables. But I always believed I did not have the right conditions for it. I thought I needed an indoor space with tons of direct sunlight – something like a greenhouse, a glass-enclosed solarium, or at the very least, a bright south-facing windowsill.

Then, one season before the coronavirus year, I decided – despite my limiting belief – to give home vegetable seed-starting a try and see what would happen...



Figure 13: My first attempt at growing vegetable seedlings from seed (back in 2019) took place on a south-facing balcony – mostly outside, but I kept a few pots on the indoor windowsill too. I didn't know it at the time, but it turned out to be an early test run before the big “coronavirus” seed-starting adventure.

That year, I planted a few warm-season vegetables – tomatoes, squash, and zucchini – along with some broccoli. I hoped the broccoli would survive the cold spring nights without shelter, but I knew the others would not. So I built two miniature greenhouses to house the cold-sensitive seedlings and protect them until the risk of late-spring frost had passed.

I placed all the sown pots – along with both miniature greenhouses – on our south-facing, roofed balcony.

To my surprise, most of the seeds sprouted – and most of the seedlings, including the broccoli I left out in the open, survived until it was warm enough to transplant them into the allotment.

And that is when I realized: **a south-facing balcony was all I needed to raise my own vegetable seedlings!**



Figure 14: *These two miniature greenhouses did not last long, but when I made them in spring 2019, they did exactly what I needed. They protected my warm-weather seedlings from cool late-spring mornings and nights.*

Your outdoor seedling-raising spot does not have to be a balcony. A terrace, front yard, backyard, porch, patio, or veranda can all work too. The key is that it faces south. That part is essential for success. It should get at least four to six hours of direct sunlight per day – the more, the better. Without enough light, plants will not grow and develop properly. They will become leggy, weak, and far more susceptible to common plant diseases.

The roof above our balcony turned out to be helpful too. It kept rainwater from pouring directly onto the seedlings.

If you are only raising cool-season vegetable seedlings, a south-facing balcony, terrace, front yard, backyard, porch, patio, or veranda should work just fine. Most of these – like brassicas, lettuce, leafy greens, leeks, beets, and kohlrabi – do well outdoors without any extra cold protection...

And if frost is in the forecast, you can always bring your seedlings indoors overnight or cover them with frost blankets for a day or two.

Now, if you would also like to raise warm-season seedlings (tomatoes, zucchini, squash), you will need more than just a south-facing area. They are much more sensitive to the cold and require stronger protection from cold nights and occasional spring frosts. And that is where a miniature greenhouse or a simple cold frame can make all the difference...



Figure 15: Even though my first two miniature greenhouses were built in a truly amateur way, they still stayed warm enough for the tomatoes to develop and grow.

Miniature Greenhouse or Cold Frame

I wanted to grow warm-season vegetable seedlings too, but I knew they couldn't handle the cool nights and early mornings of spring without cold protection. That kind of weather either kills them – or weakens them so much they struggle to recover. I had no choice but to find a way to protect them...

So I built a few miniature greenhouses to house my warm-season seedlings until mid-May (that is when the last predicted spring frost usually occurs) hoping they would adequately protect the young plants from low temperatures, cold northern winds, and the occasional frost.

My home vegetable seed-starting adventure

www.gardeningnoob.com

I already had some experience with these kinds of plant shelters. In the season before the coronavirus, I built two from scratch and used them to raise my first-ever tomato, squash, and zucchini seedlings. They only lasted until the end of that season (you can see why when you look at Figure 14 again) so I had to build new ones the following year.



Figure 16: *My third and fourth miniature greenhouses were no engineering miracles either, but I was getting there. They were a bit more advanced and lasted through the rest of the season.*

I put much more effort into my third, fourth, and especially my fifth miniature greenhouse (you can see it in Figure 17 below). And I must say, it worked like a charm. Most of the seedlings did not just survive, they thrived.

I spent around 70 USD (65 EUR) on materials—wood, screws, nails, corner braces, castor wheels, lid-supporting torsion hinges, glue, and a plastic sheet – and I used waste styrofoam for insulation.

It took me about two afternoons to finish them all, and I am confident the best one will last for years.

If building a miniature greenhouse is not an option for you, consider buying a patio cold frame or a small grow house instead. Prices usually start around 50 USD (45 EUR) and can go well into the hundreds – or even thousands. I think the cheaper ones work just as good, especially if you add a bit of extra insulation.



Figure 17: My fifth miniature greenhouse was much more advanced and better built. It had wheels, a wooden-framed lid, and was covered with professional-grade greenhouse plastic.



Figure 18: My fifth miniature greenhouse was packed with healthy, happy warm-season vegetable seedlings. They clearly liked the conditions inside.

Indoor Spot for Seed-Sprouting

I did have one indoor spot available during my adventure. But I could not use it to grow seedlings. There just was not enough direct sunlight. Still, I found a way to make it useful: **I used it to help my seeds sprout faster.**



Figure 19: This is how I used an indoor spot speed up seed sprouting.

Why I Needed It

Spring had just begun when I started planting. The days felt warm enough, but the nights and early mornings were still cold, and frost was still a real possibility. I knew that if I left the pots outside, the seeds would take much longer to sprout. So, right after planting, I brought them into an unheated indoor room.

My hope was that the warmer indoor environment would help them germinate faster. The room was not completely dark – it got some natural daylight during the day, and the temperature stayed fairly steady around 20°C (68°F).

How It Helped Speed Things Up

I was happy with the results. Most seeds sprouted within a week. The only exceptions were tomatoes, peppers, and eggplants, which naturally take longer to sprout. As soon as the first sprouts broke through the soil, I moved the pots outside to the south-facing balcony. That way, the seedlings could get the direct sunlight they needed to grow and develop properly.

I realized that even an unheated indoor space can help speed up sprouting when it is still cold outside. As long as there is at least some daylight coming through the windows, it works surprisingly well. That bit of warmth and light seems to "wake up" the seeds faster. With this approach, I was able to gain a few extra days – sometimes perhaps even more – which does make a difference early in the season.



Figure 20: An indoor spot may help seeds sprout faster, but unless you have a very sunny windowsill or grow lights, you will need to move the pots out as soon as the sprouts emerge. Otherwise, the seedlings will quickly grow leggy and weak.

Fertilizers

I guesstimated that the vegetable seedlings would need at least a month of solid growth before they were ready for transplanting into the garden. I felt good about the potting soil I picked. It was rich in compost, wood fibers, spelt husks, coco husks, and other organic matter. But I figured its nutrients would only support the newly germinated seedlings for so long.

That meant I would need to find additional ways to feed the plants and sustain their rapid growth. I decided to stick with organic options. I used a mix of fertilizers that I either made myself or bought online. Here is exactly what I experimented with:

Liquid Stinging Nettle Fertilizer

I made this one myself. It is packed with nitrogen and potassium – two nutrients that give seedlings a strong boost during their early growth. It works especially well for heavy feeders like brassicas and tomatoes. I always diluted it with water in a 1:10 ratio before I applied it. Otherwise, it would likely be too strong and could burn the seedlings.



Figure 21: My homemade stinging nettle fertilizer had a funny smell, but the seedlings loved it.

Liquid Seaweed Fertilizer



Figure 22: I used seaweed fertilizer before and after every cold spell—and always in the recommended dose.

This one I bought. While it does provide some nutrients, I mainly used it to strengthen the immune systems of the seedlings. It supposedly helps them better cope with pests, diseases, and environmental stress – like cold nights followed by warm, sunny days. I diluted it according to the label instructions, then watered the seedlings with it. Sometimes, I also used it as a foliar spray.

Compost Tea

Another homemade one. If the compost is nutrient-rich, the tea will be too. It is like giving your plants a gentle dose of everything they need. I would scoop out a chunk of compost from my pile, drop it in a bucket of water, and let it sit for a day or two. After that, I would simply use that water to feed the seedlings.



Figure 23: You can see why I could not use this compost as potting soil. It was nowhere near fine enough for seed-starting. But the chunks worked great for making compost tea.

Neem-Based Fertilizers (Liquid and Powdered)

I bought both versions of neem – liquid and powdered. They are said to feed the plants, boost their immunity, encourage strong root development, and deter various pests. I like using them because they offer both nutrition and protection in one.



Figure 24: *Neem is more of a natural insecticide and pest deterrent than a fertilizer. I used both the liquid and powdered forms.*

I cannot say for sure if all of the fertilizers that I used worked exactly as I hoped. But I was not willing to leave it to chance. My goal was to do everything I could to help the seedlings grow strong and healthy. So I went that extra mile. I saw fertilizers not just as a way to boost

growth, but as part of a broader strategy – one meant to support root development, strengthen immunity, and help the plants cope with whatever challenges spring might throw their way.

If you are not sure whether your seedlings need fertilizer, the answer depends on one key factor: how nutrient-rich is your potting soil?

For example, if I had used a well-aged, nutrient-rich compost as my growing medium, I probably would not have needed to fertilize at all. The compost alone could have supported the seedlings through their early stages. But if I had used something like molehill soil – or any other low-nutrient option – I would have definitely needed to mix in a powdered fertilizer before planting and start using liquid feed from day one.

Miscellaneous

There were a few other items I found useful during my home seed-starting and seedling-raising adventure. Here's what made it onto my miscellaneous list:

- **Garden Trowel.** I used this to scoop soil from bags into pots and trays, and later for transplanting the seedlings into the garden.
- **Small Bucket with a Spout.** This was my go-to for watering and fertilizing the seedlings. It held about two liters (roughly half a gallon). I started with this but eventually switched to a spray bottle for watering instead.
- **Hand Gloves.** I did not wear them for delicate tasks like sowing seeds or handling seedlings, but I did use them during transplanting, especially after rainfall, when the soil was wet and muddy.
- **Plastic spray bottle.** I used it to apply fertilizer foliarly. I was using a trigger sprayer at first, but my fingers hurt after each spraying session, so I switched to pressure sprayer. I am glad I did it because it is much easier to pump every now and then than it is to press constantly on a trigger.
- **Table.** It is where I did all the planting and sowing.

If you have been gardening and growing food for a while, then you probably have most of the things (if not all) on my "miscellaneous" list. You might want to get them otherwise. They do come in handy and do ease the work.

What I Wish I Knew Before I Planted My First Seed



By this point, I had mapped out my entire plan of action. I gathered everything I needed. I filled in all the missing pieces and was eager to get started. I did not think much about how I would approach things. All I wanted was to start as soon as possible – and I did exactly that.

As I have already mentioned, and as you will see in the chapters ahead, the results were better than anything I had experienced before. But here is the thing. If someone had handed me the five principles (that I am about to share with you) before that season, the whole adventure would have been much smoother. I would have made fewer mistakes. I would hit fewer roadblocks. And I probably would have seen even more success.

So, these five principles were not something I intentionally started out with. I did not have the luxury of knowing them upfront. They are what I learned along the way. They are the outcome of doing, failing, adjusting, and reflecting. While I did figure out and apply some of them early in the process, most came from experience.

You, however, do have that luxury. And I truly hope you make the most of it. Because these five principles have become the foundation that I will likely be using in every season moving

forward – at least until I find an even better way. So, with that in mind, let me show you what I wish I knew before I planted my first seed...

Plant Your First Seeds Early in Spring

One of the biggest advantages of starting your own vegetable seedlings is getting a head start on the season. While others are still waiting for the soil to warm up, you are already growing. And when the time comes, you are ready to move strong, healthy seedlings into the garden.

That is exactly what I experienced. Thanks to having my own seedlings, I was able to start growing vegetables and harvesting crops like cabbage, lettuce, broccoli, cauliflower, kohlrabi, and kale much earlier than I ever had before. The yields were significantly higher too.



Figure 25: *I did not want to waste time waiting for my seed order to show up, so I planted a few leftover seeds from last season. This cauliflower seedling came from one of them.*

That said, I know for a fact that I could have done even better if I had started even earlier...

My seed-starting adventure began in mid-March. It took me about two weeks to complete my garden blueprint, order the missing essentials, and build the miniature greenhouses. By the time I was ready to start sowing seeds in earnest, the month was almost over.

If I had done all the preparations during winter, I could have started at least a month sooner. And I am confident the results would have been even better. I have learned my lesson,

though. From now on, I am doing all the prep work in winter so I can open the growing season as early as possible in spring – and reap the benefits of those early harvests.

Know What to Plant, When to Plant It – And Why It Matters

When I started, I did not have a set planting order in place. I simply went with the vegetables that were on my to-plant list. Some things turned out great. Others, not so much. And in a few cases, I even realized that what I was trying might not actually be doable outdoors – at least not the way I was doing it.

The cool-season vegetables

The good thing was that I planted the most cold-hardy, cool-season vegetables first. These included:

- All the brassicas (cabbage, broccoli, cauliflower, kale, and kohlrabi).
- Along with leeks, lettuce, chard, chives, and parsley.

I started these in the second half of March. They handled the cold fairly well, especially those that were in a miniature greenhouse and thus more protected from the cold. Most of them made it to transplant-ready size on time – and that showed later on in the harvest.



Figure 26: Cabbage was one of the first vegetables I started that season. I planted this batch on March 29th, and by April 17th, they were already looking like this.

The slow-growing warm-season vegetables

About a week later, towards the end of March, I planted the slow-sprouting, slow-growing warm-season vegetables: tomatoes, bell peppers and chili peppers, celery and eggplants.

The tomatoes did alright. Although I lost some of the earliest sprouting ones (most likely because it was still too cold) the rest pulled through. By transplant time, just after 15th of May (our last predicted frost date in spring), they were not nearly as big as I would have liked, but they quickly caught up once the summer weather kicked in.

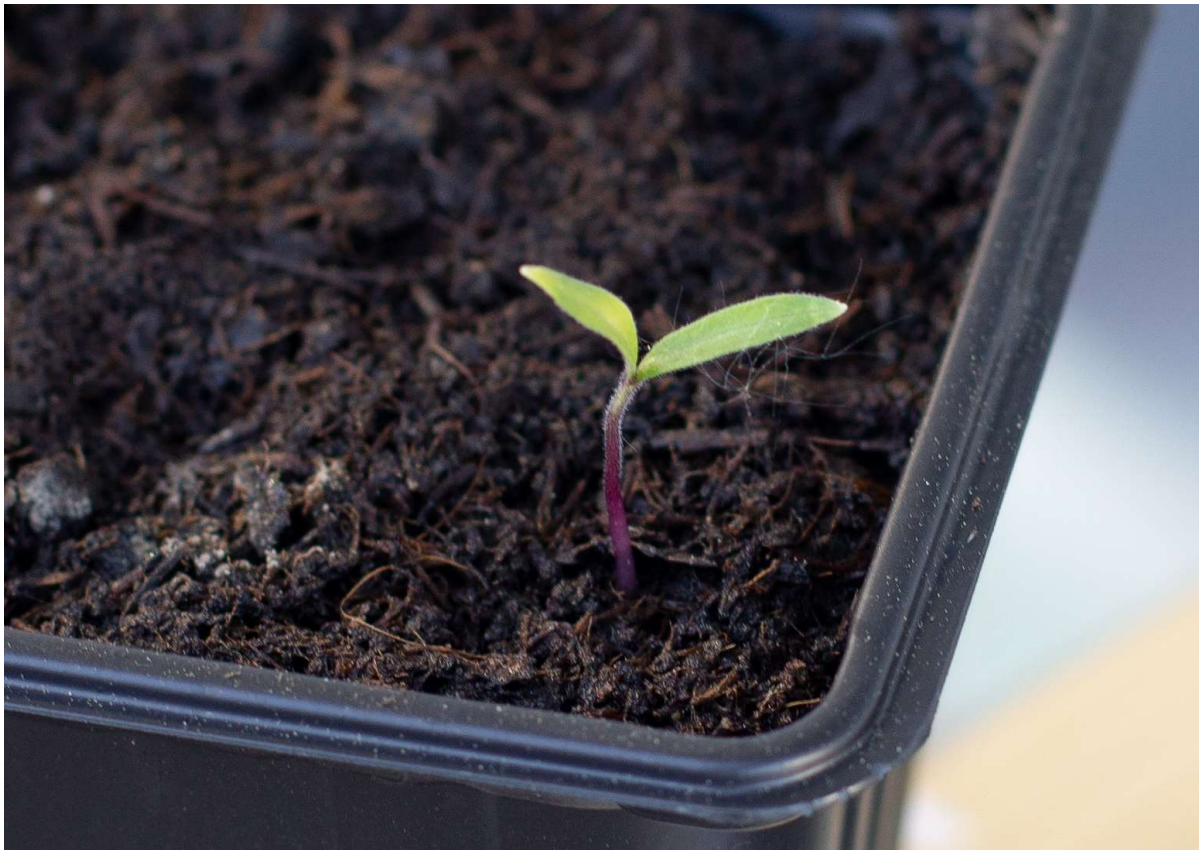


Figure 27: It took about two to three weeks for my tomatoes to sprout. In future seasons, I will be looking for ways to speed that up.

But the peppers, eggplants and celery were a different story:

- **The first issue was timing.** I started them too late. Looking back, I should have planted them at the beginning of March at the latest, not toward the end.
- **The second issue was germination.** They took ages to sprout, some more than three weeks.
- **And the third issue was their painfully slow growth.** Even though I kept them inside the miniature greenhouse the entire time, they grew painfully slow despite keeping them inside the miniature greenhouse all the time.

By mid-May, when I should have been transplanting them into the garden, they were still tiny. I tried to make up for it by giving them a few extra weeks in the miniature greenhouse for extra warmth and a better shot at growing.

But even with that extended care and much warmer weather, they never quite reached transplant-ready size. In the end, I did not get a harvest from them.

The fast-growing warm-season vegetables

Then, in mid-April (about one month before the last predicted spring frost in my area) I planted the fast-growing warm-season vegetables such as zucchinis, cucumbers, squash and pumpkins. These did exactly what I was hoping they would do...

With the warm weather breathing winds into their sails, they germinated quickly, grew fast, and were transplant-ready right on time.



Figure 28: I planted these cucumbers on April 13th, and they did not sprout until April 28th. But despite the slow start, they still reached transplant-ready size right on schedule.

Once the season ended, a few key lessons stood out:

- **You can start cold-hardy, cool-season vegetables very early in spring.** But only if you protect them well from the cold. Until they have developed strong roots and at least two true leaves, they are still vulnerable and need shelter to thrive.
- **Slow-growing warm-season vegetables are the trickiest.** On one hand, you need to plant them very early in the season. On the other, they hate low temperatures and

grow painfully slow (if at all) in cool weather. I am still figuring out whether it is even possible to grow them entirely outdoors, even with protection. Tomatoes might be doable, but peppers, celery and eggplants probably not.

- **Fast-growing warm-season crops like zucchinis and cucumbers do not need as much time.** You can plant them about a month before the last frost, and it will likely work out perfectly.

And finally – something important to keep in mind:

The spring of the coronavirus year was unusually warm and sunny, which definitely worked in my favor. But not every spring is like that. Some years are colder. And in those colder conditions, even hardy seedlings can suffer, especially right after sprouting before they are well established.

That is why good timing matters. But so does having a backup plan for cold, unpredictable springs.

Practice Succession Planting

Once I got the hang of it, I was filling pots with soil and planting seeds almost every day. But I did not stop once I had planted everything on my to-plant list. No – I went back to the beginning and started over. And I am glad I did..



Figure 29: I planted broccoli in two batches: first on March 29th, and then again on April 4th. This photo shows how the second batch looked on April 17th.

It Lowers The Risk Of Ending Up Empty-Handed

You see, there were times when certain seeds (or more accurately, the seedlings that sprouted from them) just did not perform well. They grew slowly, looked weak, and were especially vulnerable to damping-off disease (more on that later). In the end, they never reached transplant-ready size, and I had to discard them.

What is funny, though, is that when I planted those exact same seeds (from the very same seed packet) a few days later, the results were completely different. The new batch turned into strong, healthy seedlings. Everything else was the same: the soil, the pots, the spot I kept them in. The only difference was the timing.

That is when I realized: you never really know how a batch of seedlings will turn out. Most of them will likely do just fine. But every now and then, something does not go as planned – and if that was your only attempt, you might miss out on that entire vegetable.

That is why I now practice succession planting. It simply means planting the same vegetable more than once, spaced out over different time intervals (days or even weeks). For example, you might plant five pots of cabbage today, five more next week, and another five the week after that.

It Spreads Out Your Harvest Over Time

But planting in different time intervals does not just lower the risk of ending up empty-handed. It also spreads out your harvest more evenly over time. Instead of everything maturing at once, you get a steady stream of produce over a longer stretch of time. Because let's be honest, no one wants all their lettuce, cabbage, or cauliflower to be ready on the exact same day. You will either end up wasting it or scrambling to preserve it.

And again: Do not just plant in different time intervals, diversify the seeds too. Use different varieties of the same vegetable. Buy seeds from more than one company. That way, if one batch or one variety does not perform well, you still have others to fall back on.

It is a simple way to hedge your bets and enjoy a longer, more reliable harvest season.

Raise More Seedlings Than You Need

Thanks to my vegetable garden blueprint, I was able to figure out roughly how many seedlings I would need for each type of vegetable that I wanted to grow that season. But even with those numbers in hand, I had a strong gut feeling that I should plant more than I technically needed. And looking back, that instinct couldn't have been more accurate. Here is why:

Not every seed will germinate.

I did not track the exact germination rates. Maybe I will do that next season. But if I had to guess, I would say that about one out of five seeds just did not sprout. And keep in mind, these were high-quality organic seeds, not the cheap kind.

Not every seedling makes it to transplant size.

Most of the seeds that sprouted grew into seedlings, but not all of them made it far. Some died off early, especially from damping-off, a disease I struggled with the most. It tends to strike in cold, damp growing conditions and can wipe out entire batches if you are not careful.



Figure 30: This photo shows how the second batch of broccoli looked 11 days later, on April 28th. Notice how some seedlings grew faster than others – despite being planted on the same day – and how some seeds didn't sprout at all.

Not every seedling is worth transplanting into the garden.

Some seedlings survived damping-off but remained small and weak. Others sprouted but never really took off—for reasons I still don't fully understand.

I didn't bother transplanting those. Instead, I picked the strongest ones – bigger, healthier seedlings that clearly had a better chance of thriving in the garden.

Not every seedling survives the move to the garden.

Transplanting day is always exciting, but it does not always turn out the way you expect. Sometimes, your healthy seedlings get wiped out by pests just days after being moved

outside. That happened to me more than once. Thankfully, I had extra seedlings on hand and was able to replace the lost ones right away.



Figure 31: The cabbage seedling in the bottom right corner died from damping-off, but the one right next to it was unaffected. It just goes to show that you can never quite predict which seedlings will pull through. I took this photo on April 27th.

So yes, lots of things can and did go wrong. But because I planted more than I needed, I still had enough strong, healthy seedlings to replace all the failed ones – both in the garden and in the allotment. That simple decision (to raise more than I thought I would need) turned out to be another good move I made spontaneously.

It does take a little more work early on, but it gives you breathing room later on if things do not go as planned. For me, it is now a key part of reducing risk and making sure the harvest stays on track.

Grow Only One Seedling Per Pot

Throughout the season, I raised what felt like a countless number of vegetable seedlings. But only a small portion of them had a pot of their own. Most of the time, I would plant three or four seeds in a single pot. Even the smallest pots were no exception.

At first, I thought this was a genius move. It seemed like I was saving on everything: soil, pots, fertilizer, water, time, and effort. More seedlings with fewer resources sure did sound like a win!

But once transplanting time came around, I realized I had made a mistake...

You see, when you grow multiple seedlings in the same pot, their roots inevitably tangle—no matter how large or small the pot is. During transplanting you have to pull those roots apart, which damages the roots and stresses the seedlings. They then need extra time to recover and adjust to their new environment, which can push your harvest back, too.

That alone would be enough. But there are other problems related to it too:

- **The seedlings grow slower.** They all compete for light, nutrients, and space. And that competition slows them all down.
- **They are more vulnerable to disease.** When seedlings are packed closely together, if one gets sick, it often spreads to the others.
- **Transplanting becomes harder and riskier.** Separating the roots takes time and care. You need to make sure the soil is moist both before and after transplanting. Otherwise, the seedlings might struggle to adjust and even die off.

That is why I now mostly grow just one seedling per pot. It makes transplanting easier, faster, and far less stressful for the plants. There is no root damage, no major disruption to their growth – and as a result, no delays in harvest.

That said, I do occasionally make an exception. If I am intentionally trying to delay a harvest (instead of relying on succession planting), or if I am in a hurry and do not have time to start each seedling in its own pot, I may still group a few together. But that is the exception and not the rule.



Figure 32: The chard and tomato seedlings didn't mind sharing a pot – but separating them for transplanting took time and patience.

How My Coronavirus Gardening Season Actually Played Out

By now, I have shared how I prepared for planting, what essentials I gathered, how my thinking evolved as the season went on, and what I ended up basing my approach on. But that was just the beginning. Now it is time to see how things actually played out.

In the next sections, I will take you through the full timeline of my "coronavirus" vegetable seed-starting season – how I planted the seeds, how I cared for the seedlings as they grew, and how I eventually moved them into the garden and the allotment. You will see in detail what worked, what did not, and what I would do differently next time.

Disinfect Everything

I knew that some soil-borne diseases can linger in plant containers for years. And I knew that if I reused old pots without disinfecting them first, I would be taking a serious risk. Seedlings grown in contaminated containers are practically doomed from the start.

But even with that knowledge, I skipped the disinfection step and dove straight into planting. Not my best idea. That spring, I had several outbreaks of damping-off – a plant disease that thrives in cold, damp conditions and attacks young seedlings.



Figure 33: I did not disinfect the pots before planting. Luckily, most of them were new and probably not the source of the damping-off outbreaks.

Looking back, I suspect that at least some of those outbreaks were caused by contaminated tools or containers that I had not cleaned properly. I ended up losing several dozen seedlings because of it. Luckily, most of the pots I used were brand new and had not been in contact with soil before. Otherwise, the damage could have been much worse.

Lesson learned. Now, I disinfect everything at the start of the season – anything that could potentially spread disease to my seedlings. That includes every pot and container, my garden trowel, the watering bucket, and even the spray bottle I use for foliar feeding. I also wash my hands thoroughly before every planting session.

I am well aware that some of these habits may have been influenced by all the coronavirus safety measures that were happening at the time. But honestly, they cannot hurt. It takes a bit of time to do it, however, preventing disease is so much easier than trying to save struggling plants later.

Plant The Seeds

I was excited when I was finally in a position to start planting seeds. And once I got going, it turned out to be just as simple and enjoyable as I hoped. After just a few tries, it became a relaxing outdoor routine – something that grounded me during a time when most of the world was caught up in fear and uncertainty.

And that routine basically came down to these seven steps:

Step 1: Fill the pot with potting soil all the way to the rim.

Step 2: Gently press the soil down with your fingers until it settles to about three-quarters of the height of the pot.

Step 3: Water the soil thoroughly.

Step 4: Place the seeds on top of the pressed-down soil.

In the beginning, I used to plant three or four seeds in each pot. But once I switched to growing just one seedling per pot, I started planting only two seeds per pot instead. I make sure to space them out a little so they each have room to sprout without crowding each other. Later on, if both come up, I simply keep the stronger one and remove the weaker.

Step 5: Add more soil to the pot until it reaches the rim again, then gently press it down—just like you did the first time.

Step 6: Water the pot again but do it gently (either by misting or pouring slowly) so the seeds stay in place and don't get moved around.

Step 7: Add one last loose layer of soil on top, but don't press it down. Leaving it soft helps prevent spillovers when you water the pot later.

That was it. A simple, repeatable process. And over the days and weeks that followed, I went through these steps again and again until I had planted every vegetable on my to-plant list. I have to say it again. Planting never felt like work. Quite the opposite. It relaxed me. Especially on those sunny, warm days, it became a quiet little joy in my daily routine.



Figure 34: This is how the pots looked once I finished planting. All that was left to do was move them inside (or to the south-facing balcony) and wait for the sprouts to emerge.

Keep a Close Eye on the Planted Pots

Early in spring, I moved the freshly planted pots into an unheated room right after planting the seeds. My hope was that the warmer and more stable indoor temperature would help them sprout faster. And it did. Most seeds sprouted within a week. I am pretty sure that if I had left them outside in the cold, germination would have taken much longer.

I checked the planted pots every day for two reasons:

Make Sure the Soil Stays Moist While You Wait for Sprouts

The first reason was the soil moisture. Seeds need consistent moisture in order to germinate. If the soil dries out, the sprouting and growing process stops. Now, to be honest, I rarely had to water the fast-sprouting vegetables. Most of them came up before the soil had a chance to dry out...

But the warm-season vegetables were different. Tomatoes, bell peppers, chili peppers, and eggplants took 20 days or more to sprout. And during that time, the soil dried out multiple times. I had to keep a much closer eye on those and water as soon as I noticed the top layer starting to dry out.

Move the Sprouts to a Brighter Spot as Soon as They Emerge

The second reason I checked the pots every day was light. The room did not get much direct sunlight, and I had to be careful not to miss the moment when sprouts first broke through the soil.

You see, if I left them in that low-light room for too long, they would quickly become leggy, weak, and much more vulnerable to disease. So as soon as I spotted the first signs of life, I moved them to the south-facing balcony where they could get the direct sunlight they needed to grow strong and healthy.



Figure 35: *I started all these warm-season seedlings in my indoor sprouting spot and moved them outside into the miniature greenhouses once they sprouted. It sped up germination, but I had to be careful not to miss the moment they broke through the soil.*

By the second half of spring, when the weather had warmed up significantly, I started leaving the pots planted with cool-season seeds directly on the south-facing balcony. Temperatures were high enough by then, and most of those seeds sprouted outside without a problem. But even there, I still had to keep an eye on the soil to make sure it never dried out too much.

And one final word of caution: Do not go overboard with watering – especially early in spring. Too much moisture in a cold environment can lead to damping-off, the disease I already mentioned earlier.

Protect Newborn Seedlings From Early Spring Cold as Much as You Can

The first seeds to sprout were all cool-season vegetables: cabbage, broccoli, cauliflower, and kohlrabi. As I explained, I wanted them to get as much light as possible right from the start, so as soon as I saw the sprouts breaking through the soil, I moved them to the south-facing balcony.

Cool-Season Seedlings Will Likely Do Fine in a South-Facing Spot

At the time, it was still early in spring. And I did worry a bit about the cold. But I knew these cool-season vegetables could handle low temperatures to a certain degree. Plus, the balcony offered some shelter from harsh northern winds. So, I figured they should be fine.

Now, my plan was to keep them in the miniature greenhouse at first and only bring them indoors if there was frost in the forecast. But once the warm-season seedlings started sprouting and needed the greenhouse space, I moved the cool-season ones outside into the open and kept them there without any extra cold protection.

As one more precaution, I placed them as close to the house wall as I could. The wall not only shielded them from cold winds but also radiated some of the heat it had absorbed during the day. It helped keep the seedlings a bit warmer through the night.

But Warm-Season Seedlings Need Extra Protection Until the Cold Is Gone

I could not do that with the warm-season seedlings, though. Tomatoes, bell and chili peppers, and eggplants are much more sensitive to cold. A single chilly night or early morning – let alone a late frost – could wipe them out in an instant. I did not have a proper indoor growing spot, so I had to rely on miniature greenhouses instead...

I had tested the idea a year earlier when I built two simple miniature greenhouses out of scrap materials I had lying around. They worked surprisingly well – I managed to raise several tomatoes, zucchinis, and squashes in them. That small success gave me the confidence to go bigger.

So, in the "coronavirus" season, I built three new ones. The first one was basic. The second one was a bit more refined. And the third one was nearly perfect. I even insulated it using leftover material I had picked up at work before the coronavirus hit. Once they were all

ready, I placed them right up against the house wall so they could benefit from both the warmth and wind protection.

I built these greenhouses primarily for the warm-season seedlings. But since those were still taking their time to sprout, I temporarily placed the already-sprouted cool-season seedlings inside to give them a little extra warmth. They clearly appreciated it and started growing faster than the ones I left outside in the open.



Figure 36: Spring 2020 was warm and free of hard freezes, however, the nights were still cool. I felt confident leaving the cool-season seedlings outside in the open, but protecting the warm-season ones from low temperatures was a must.

How would this setup perform in a colder spring? One with prolonged freezes and sub-zero temperatures? I am not sure. That remains to be seen. But one thing is certain: Not every spring will be as mild as that one. And I may need to come up with an even stronger form of cold protection in the future.

Don't Let Those Hot Mid- and Late-Spring Days Catch You Off Guard

Time went by quickly. I really enjoyed watching my seedlings grow and develop. But it was not all plain sailing. As spring moved into its middle and later stages, the days got longer, the sun got stronger, and the south-facing balcony started heating up – especially in the afternoons.

It did not take long before things got too hot. The black pots soaked up the sun, and the soil inside them started drying out almost by the minute.

That is no surprise, really, when you consider the fact that temperatures during the day in mid- and late-spring can feel almost like summer. And with black pots sitting in direct sunlight, things escalated quickly. As soon as the sun hit, the pots absorbed the heat and the soil inside started drying out fast. I could almost see the moisture evaporating right in front of me.

And then it happened – a hot day that caught me completely off guard. And it cost me a dozen seedlings...

The sun hit the balcony early that morning. I had not watered the seedlings that day, or the day before. By the time the sunlight was shining directly on the pots, it had pulled out every last bit of moisture from the soil in about an hour. My seedlings were left baking in bone-dry soil for hours. When I came to check on them, they were already wilted beyond saving.

I learned another important lesson. From that point on, I made it a rule to water all of my seedlings thoroughly before any hot and sunny spring day. I usually did it early in the morning, to make sure they were well-hydrated before the heat kicked in.



Figure 37: The red cabbage seedlings were getting bigger by the day. But as the spring heat picked up, so did their thirst. They needed more and more water to stay alive and keep growing strong.

To be honest, watering that many seedlings took a lot of time and effort – especially with so many sunny days that spring.

One solution I might try in the future is using shade cloth. It could help reduce both overheating and moisture loss. I will also be exploring other ways to help the soil stay moist for longer.

Don't Let Watering Be the Reason Your Seedlings Struggle

Vegetable seedlings can be surprisingly sensitive to sudden changes in temperature – especially in their early stages of growth. One way to shock them is by watering with cold water on a hot day. And that kind of shock can slow their growth or set them back for days.

That is why I always tried to match the temperature of the water to the outside air as closely as possible.



Figure 38: *These zucchini seedlings grew incredibly fast. I just had to make sure they never ran out of water.*

What worked best for me was simple: I would fill the watering can in the evening and leave it out on the balcony overnight, or longer, if watering was not necessary the next day. This gave the water time to adjust to the outdoor temperature.

That way, when I did water the seedlings, I did not have to worry that the water was too cold. Or too hot.

Letting Tap Water Sit Also Reduces Harmful Chemicals

Later on, I realized that this practice had another unexpected benefit. You see, most tap water contains small amounts of chlorine, calcium, and fluoride. These can build up as salts in the soil over time. And that buildup can damage seedling roots and make it harder for them to absorb moisture properly.

But when you let tap water sit for a day or two, some of those chemical effects are reduced. The chlorine, for example, slowly evaporates into the air. And the heavier salts settle at the bottom of the watering can. If you avoid pouring out the last bit of water (just leave a few centimeters behind) you can avoid most of that residue.

Of course, rainwater would be a much better option. It is free, chemical-free, and environmentally friendly. I have not set up a rainwater collection system yet, but it is definitely something I will consider doing in the future.

Keep the Lid of the Miniature Greenhouses Open During the Day

I was amazed at how well the miniature greenhouses protected my warm-season seedlings during those cool spring nights and early mornings – when temperatures sometimes dropped close to freezing. To protect the plants from the cold, I kept the lids tightly closed at night. That part worked great.

But daytime was a different story. During the day, I had to keep the lids open at all times, for two important reasons:

- First, **I wanted the seedlings to always be adjusting to the outdoor conditions.** To things like wind, direct sunlight, and temperature swings. It was basically a gentle form of hardening off. And it helped prepare them for life in the garden.
- Second, **I needed to prevent overheating.** If I left the lids closed on a warm, sunny spring day, the temperature inside the greenhouse would shoot up fast. And if it got too hot, the seedlings could cook themselves to death in no time.

I know this from experience. You see, on one partly sunny day, a gust of wind accidentally closed the lid on one of my greenhouses. By the time I noticed, it had already heated up inside, and the seedlings were beginning to wilt. I lost quite a few tomatoes, bell peppers, chili peppers, and eggplants that day.

And I am sure the losses would have been even worse if I had not caught it when I did. Or if the sun had been stronger.



Figure 39: *To stop the greenhouses from overheating, I always kept the lids open during sunny days. It made a huge difference for the seedlings. It did not just save them from serious stress, but it literally kept them alive.*

It was another hard lesson. From that day on, I made sure all the lids were securely open during the day. The only time I kept them closed during the day was during a short cold spell in mid-spring, when daytime temperatures dropped low enough to make it risky. But once the weather warmed back up, the lids stayed open again.

Fertilize the Seedlings at Least Once per Week

I felt like the potting soil I was using was good, but I did not fully trust it. Relying only on the nutrients in it did not feel like enough to get the seedlings all the way to the finish line. So, to be on the safe side, I started feeding the seedlings with fertilizers once they were over a week old.

Earlier in this e-book (under the section titled Fertilizers), I already explained why I chose the fertilizers I did. But it is also worth pointing out a few more things about how I actually used them:

- **I mostly used compost tea and stinging nettle.** It was usually once per week. I always mixed them with water and applied them as part of my regular watering routine.
- **I used seaweed and neem only occasionally, after weather-related stress.** I applied them before and after cold spells to help the seedlings handle and recover from

temperature swings. These too were mostly mixed with water and applied as part of my regular watering routine.

- **A few times, I applied seaweed and neem foliarly.** I always did this in the evening, after sunset, to avoid leaf burn. I could have done it in the early morning as well, but only if it was early enough for the leaves to dry completely before the sun came out.

I always diluted fertilizers according to instructions. It is easy to burn the seedlings if you do not. And if you burn them, they do not just get stressed, they can actually die.

To be honest, the fertilizing took a bit of time. Not so much when I was mixing them with water and applying them as part of the regular watering routine. But more so when I was applying them foliarly. I could only prepare small amounts at a time, so I had to repeat the process several times. Either way, I had to carefully measure the amounts.

As for neem cake (the powdered version of neem), I did not use it until later – during transplanting. But I do plan to test it earlier in the process next time (by mixing it directly into the potting soil during planting) to see how it performs.



Figure 40: You can find stinging nettle just about anywhere. And it makes a surprisingly powerful fertilizer. All you have to do is soak it in water for three weeks. Just be warned: the smell is not for the faint of heart.

Be on the Lookout for Damping-Off

Damping-off was by far the most destructive and mind-boggling problem I had to deal with during my "coronavirus" home vegetable seed-starting adventure. It is a plant disease caused by fungi or bacteria that attack young seedlings (usually right at the soil line) and before you know it, all that new life you were so proud of starts collapsing in front of you.

What Damping-Off Looks Like

The first sign is subtle: The stem of the seedling begins to thin out just above the soil until the seedling can no longer support itself and collapses. Most plants die shortly after, and those that survive almost never fully recover. At that point, you are basically watching them fade away in slow motion.

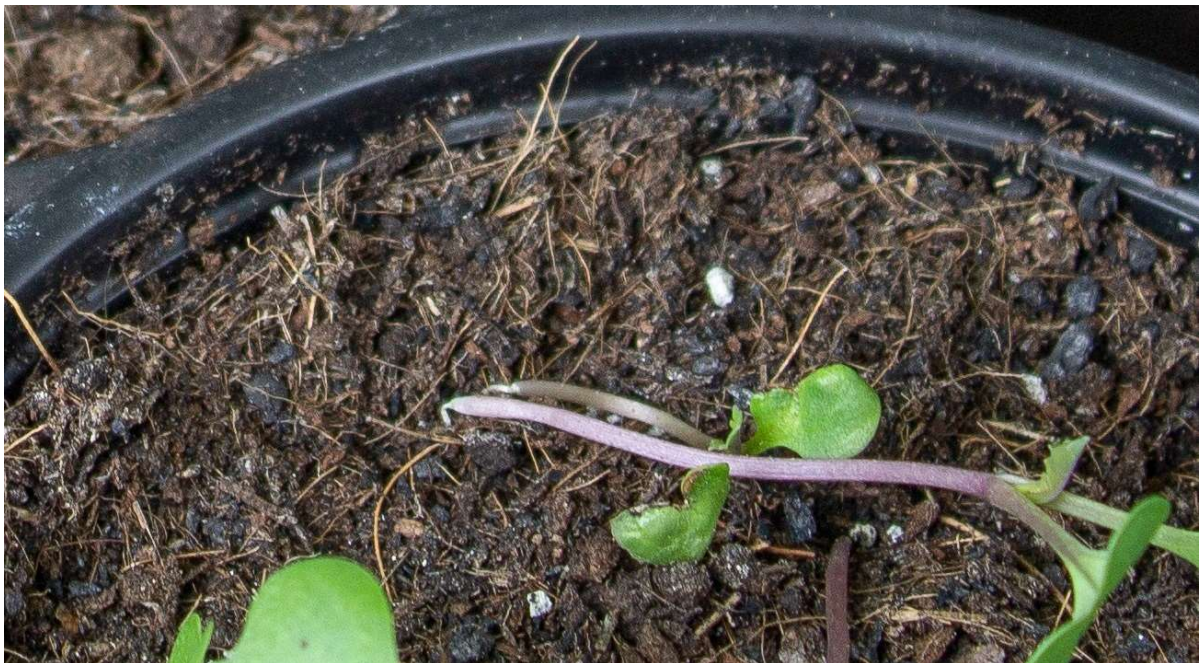


Figure 41: It hurts to see your seedlings get wiped out by damping-off. I wish I had the perfect solution by now, but I do not.

The Impact It Had on Me and My Seedlings

I have to admit, it caught me completely off guard. I felt hopeless, powerless, and honestly, sad, when it hit for the first time. It was like my whole world fell apart. I had put so much hope, time, effort, care, and love into those plants. Watching them go down like that was distressing, to say the least.

In my case, the disease seemed to affect cabbage, broccoli, and tomatoes the most. I did not notice it on bell peppers, chili peppers, leeks, basil, or kohlrabi. I am still not sure if that was just a coincidence or something more consistent. I guess I will find out in the seasons ahead.

How I Handled the Outbreak and What I Learned from It

After the initial shock, I did some research and found out that damping-off spreads easily between the plants, especially the ones that are close together. So, the first thing I did was isolate every affected seedling. That helped stop the spread, but it did not save the ones already infected. Most of them died. And the few that survived had fallen so far behind in growth that I ended up discarding them too.

This was also when I realized another major downside of growing multiple seedlings in the same pot. If one plant gets infected, you often have to throw the whole pot away, even if the others still look healthy. From that point on, I also avoided overwatering – especially when the air was humid or the weather was cloudy and cold. Those are exactly the kinds of conditions that this plant disease loves.

All in all, I did learn something new from the whole experience. I learned that not everything is as bad as it seems at first. And that I have to keep going, even if some of my seedlings get decimated – no matter the reason.

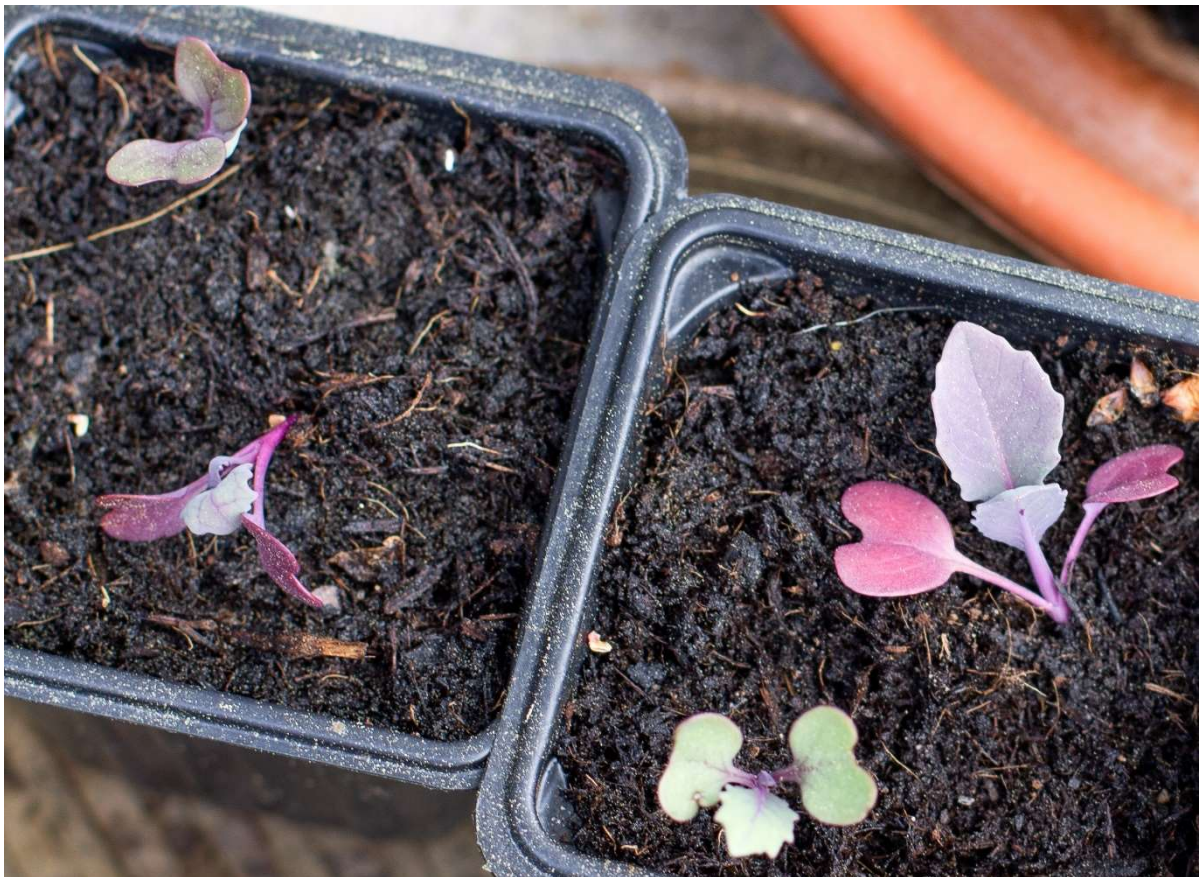


Figure 42: I started these red cabbage seedlings on March 29th. By April 28th – one month later – they were still tiny and barely hanging on. Damping-off had clearly taken its toll.

How I Plan to Prevent Damping-Off Next Season

I also realized that it would be a smart move to disinfect everything at the start of each new gardening season. And by everything, I really mean everything: pots, trays, watering cans, buckets, garden trowels, spray bottles, and even the seeds themselves!

Here is how I plan to do that:

- Fill a big bucket with hot water.
- Add some vinegar and baking soda.
- Stir the mixture for a minute or two.
- Soak all tools and containers for about an hour.
- Let them dry in direct sunlight.

As for seeds, I plan to soak them in liquid seaweed fertilizer for about a day before planting. It is supposed to help disinfect them, protect them from disease, speed up germination, and even support early root development. And only then will I start planting.

Wait Until the Seedlings Are Big Enough for Transplantation

As spring went on and the weeks rolled by, I settled into a steady routine. I kept planting new seeds, moved the sprouted seedlings out to the balcony, watered when needed, fertilized here and there, and opened the greenhouse lids each morning, and then closed them again in the evening. It became a familiar rhythm I followed almost every day...



Figure 43: The rutabaga seedlings still looked a bit small. But the allotment was ready, so I made the call to transplant them anyway.

Meanwhile, the seedlings I had started earlier kept growing and growing. As the second half of April began, the fellow gardeners we shared the allotment with let me know that the soil was about to be plowed and ready for planting. That was when it hit me: transplanting time was getting close! And I have to say, that was a really exciting moment for me.

Some Cool-Season Seedlings Were Ready in Just a Month

Among the cool-season vegetables, kohlrabi and rutabaga were the first to be ready. They grew fast and needed less than a month to reach transplant size. They were followed by broccoli, cauliflower, cabbage, chard, kale, and lettuce, which all took a little over a month. The slowest growers were the leeks, which needed a full two months.

Fast-Growing Warm-Season Seedlings Were Right on Schedule

The fastest growers among the warm-season vegetables were cucumbers, zucchinis, and squash. I planted them last (around mid-April) because I knew they would sprout and grow quickly. I did not want them to start flowering before they were moved into the garden. Basil grew relatively fast too, especially once the days warmed up.



Figure 44: *The Hokkaido squash seedlings were almost the perfect size for transplanting. I started them on April 13th and moved them to the allotment on May 16th.*

Tomatoes, Peppers, and Eggplants Needed (Much) More Time

Tomatoes, bell peppers, chili peppers, and eggplants were a different story. Like I mentioned earlier, they had a slow start and did not get as big as I hoped. By the time the last spring frost had passed (around the May 15th), they were still small, mostly because they had only had a couple of weeks of real growth.



Figure 45: The spring of 2020 was relatively warm, but my eggplant seedlings were still tiny by May 30th. I had started them on March 29th which was clearly too late.

I waited two more weeks. But even then, they were still tiny and could have used another full month to grow stronger.

Most Seedlings Were Undersized, But I Did Not Let That Hold Me Back

In general, I wanted my seedlings to be around 10 centimeters (about 4 inches) tall, with at least three true leaves, before moving them into the garden. The more, the better. But that did not always happen. When the allotment was plowed and ready, most of my seedlings were not quite there yet.

Still, I had plenty of extras and did not want to wait any longer to get them into the ground. So, I went ahead and transplanted them anyway.

Start Transplanting

I began moving the seedlings into the garden as soon as the allotment was plowed. Even though many of them were smaller than I would have liked, I did not let that bother me. On the contrary, I was excited because this meant I was one big step closer to the harvest!



Figure 46: *I transplanted my second batch of broccoli seedlings on May 2nd. They could have used a bit more time to grow, but they did not mind the move. In fact, they settled in beautifully and grew even faster after transplanting!*

There was a lot to do, though. The balcony was packed with pots full of different vegetable seedlings, and I needed to get them all transplanted within just a few weeks. At the same time, I also had to direct-sow other vegetables like onions, carrots, beetroots, bush beans, and peas. I had a feeling I would be burning the candle at both ends to pull it all off.

The first to go into the ground were the kohlrabi and lettuce, which I transplanted on the April 20th. Over the following days and weeks, I continued with rutabaga, cauliflower, cabbage, broccoli, and chard.

And once the last predicted spring frost date had passed for my area (around the May 15th), I finally started transplanting the warm-season vegetables too: tomatoes, squash, zucchinis, and cucumbers.



Figure 47: The tomatoes were still tiny when I transplanted them into their final pots, but once the weather warmed up, their growth exploded.

Reduce the Transplant Shock as Much as Possible

I had already explained how growing multiple seedlings in one pot slowed their growth and made things worse when disease hit. But once it was time to move the seedlings into their final location, I ran into another big problem caused by that same decision: untangling the roots.

You see, as the seedlings grew together in the same pot, their roots became tightly tangled. And separating them without causing damage turned out to be a mission impossible. No matter how gentle I tried to be, some damage always happened. And that root damage added

stress at the worst possible time – right when I was transplanting them into the allotment. The fact that the weather was heating up day by day only made things worse...

It took some time for the seedlings to recover from it. And while they were recovering, they were not growing. And that delay set everything back, including the harvest.



Figure 48: *I got plenty of chard seedlings from a single planting, but they all grew in a shared pot. Their roots ended up completely tangled, which made transplanting a nightmare.*

Unfortunately, I have grown most of my seedlings this way, so I had no choice but to deal with it. Here is how I ended up handling the transplanting to help them settle in with as little stress as possible:

Water the seedlings at least two hours before transplanting

I always made sure the seedlings were well-hydrated before I moved them into the allotment. I watered them about two hours in advance. This way, the excess water had time to drain. If I did not do that, the soil in the pot would be too wet and loose, which makes it harder to remove the seedlings from the pot in one piece.

Dig out a hole in the soil

The hole was roughly the same size as the pot the seedling had grown in. Since most of my pots contained more than one seedling, I had to dig multiple holes (one for each plant) before removing the seedlings from the pot.

Water the hole in the soil

I skipped this step if it had rained recently or if rain was in the forecast. But on hot and sunny days (especially when more were expected) I always watered the hole before transplanting. It helped keep the soil moist around the seedling for longer, which gave it a better chance to settle in and survive the heat. You see, May can get extremely hot, and without that extra moisture, the seedlings might not make it.

Get the seedlings out of the pot as gently as you can

I would turn the pot upside down and gently shake it until the seedlings (and the soil) slid out. If there was only one plant in the pot and its roots were well-developed, the root system held the soil together in a nice, firm clump. That made transplanting easy...



Figure 49: When I pulled the seedling out of the pot and saw the roots holding the soil firmly together, I knew the transplant was going to be smooth and easy.

But if the roots were still weak, the soil crumbled apart, and it made the process much more stressful for the plants.

Untangle the roots

I did not have to worry about this when there was only one seedling in the pot. But whenever multiple seedlings shared the same pot, I had to separate their roots by hand. It was slow and delicate work. And no matter how careful I was, I could not avoid root damage.

On hot and sunny afternoons, it felt especially risky. As I untangled the roots, they would often lose contact with the soil and start drying out – just when they needed moisture the most. The sun and the heat sped up dehydration and made everything worse.



Figure 50: *I managed to transplant most of the chard seedlings. But the transplant stress triggered early flowering in some of them, and I had to pull those out.*

Place the seedling in the hole

I placed each seedling into its hole and gently but firmly pressed the soil around it. My goal was always to match the depth it had been growing at in the pot. But with shared pots, it was hard to tell how deep that actually was.

On top of that, many seedlings were too floppy to stay upright on their own. So, I often had to bury them up to their first set of true leaves and simply hoped they would pull through.

Water the soil around the seedling again

Once the seedling was in the ground, I watered the soil around it again to help it rehydrate faster and reduce the transplant stress. Obviously, I skipped this step if the soil was already moist from recent rain.

Even out the soil around the seedling

Sometimes, watering caused the soil to sink and left parts of the roots exposed. I always evened it out afterward to make sure the roots were fully covered and protected from the sun.



***Figure 51:** I transplanted this cabbage seedling too deep. Its leaf stems ended up buried in the soil. That is not ideal when you are trying to avoid pests and diseases. But I had no choice. The roots were so tangled I had to separate them first, and that caused a lot of damage.*

Come back next day and water again

If the weather was rainy, I did not need to do anything because the soil stayed moist on its own. But when the sun had been shining for days, the soil dried out fast. I had no choice but to return the next day and water again. That extra moisture helped reduce transplant shock and gave the seedlings a much better shot at survival.

The seedlings had the best chance of surviving the move to the allotment when the soil was moist both before and after transplanting. That is why I loved transplanting right after a rainy day. In those conditions, I did not need to bring any water. The soil was already moist enough, and the whole process went faster and smoother.

But when the weather turned dry, transplanting became a real challenge. I had to carry water to the allotment to make up for the dry soil and give the seedlings the moisture they needed to survive the move.

And once again, my decision to grow multiple seedlings in one pot made things harder. If I had grown just one seedling per pot, all I would have needed to do was water it well before the move, then take it out of the pot and place it straight into the ground. It would have saved me time, and spared the seedlings a lot of unnecessary stress.



Figure 52: Transplanting during or after rainy days was a breeze. The seedlings had plenty of water available and were able to settle into their new environment much faster.

Replace the Failed Seedlings with the Spare Ones



Figure 53: Once the seedlings settled into their new environment, they started growing fast. Not all of them made it, though – I had my fair share of casualties too.

Transplanting took more time and effort than I expected, but I kept going. I kept adding more and more seedlings to the allotment each day. And with each passing day, I was also getting closer to bringing my original vision to life. I could finally see my allotment starting to resemble the vegetable garden blueprint I had created at the very beginning of the season.

But then, things got complicated again...

Some of the recently transplanted seedlings did not make it. A few wilted and died because I had moved them during the hottest part of the day. The transplant shock from that heat was simply too much for them. Others were taken out by pests. Cabbage, cauliflower, and broccoli got hit the hardest. And the main culprit was cabbage root fly.

Looking back, I believe there were two reasons why this pest did so much damage:

- **Bad timing.** I started transplanting in the last third of April—right when cabbage root fly activity was peaking. I didn't know that at the time, but I learned it the hard way.
- **No crop rotation in the past.** I had planted brassicas in the same spot the year before, without giving it much thought. That patch of soil was likely already full of pests just waiting for me to plant their favorite food again.



Figure 54: As if the cabbage root fly wasn't enough, snails and slugs joined the party too. And they showed no mercy.

I lost two to three brassica seedlings a day. It was disheartening, but luckily, I still had enough spares to replace the lost ones. It meant more work and more time, and even then, success was not guaranteed. Often, the replacements died too, especially if I planted them in the same (or nearby) spot where the first ones had died.

Still, there was something good that came out of it. I realized that if I wanted to stop losing seedlings like this, I needed to take crop rotation much more seriously. I could not just plant vegetables wherever I wanted anymore. Otherwise, I would just keep repeating the same mistake – putting the same crops in the same places and dealing with the same pests again and again, year after year.

Watch How Your Seedlings Grow into Harvest-Ready Plants

Once the seedlings were in the ground and settled into their new environment, there was not much left to do. I had done all the hard work. Now I could finally relax and enjoy the process of watching the seedlings grow bigger and stronger with each passing week.



Figure 55: I took this photo on May 17th just as this kohlrabi seedling was getting ready to form its bulb.

Of course, there were still a few tasks here and there. I weeded around the seedlings occasionally to give them more light, air, and space to grow. And every once in a while, I gave them a boost with a foliar fertilizer. But overall, it was simple maintenance from that point on.



Figure 56: By mid-to-late May, the May Queen lettuce was already forming a head. It would not be long before I could start picking the first leaves.

As the season moved forward, I did lose a few plants – especially in the row where I had grown brassicas the year before. That spot continued to give me trouble. But most of the plants pulled through, and it was obvious that the harvest was getting closer and closer.

Enjoy the Hard-Earned Harvest

It did not take long for all my hard work to bear fruit. The first vegetable ready to harvest was lettuce. Parsley was not far behind, followed by kohlrabi, kale, broccoli, and some early-maturing varieties of cabbage. All of these took about three months to go from seed to harvest-ready size!



Figure 57: !!!Once the seedlings settled into their new environment, they started growing fast. Not all of them made it, though—I had my fair share of casualties too.!!!

The Early Harvest Felt Like a Giant Step Forward

That result felt incredible — especially considering how much I had struggled with most of these crops in the past. Before the "coronavirus" season, I was lucky to get any produce at all from them. And even when I did, it usually did not happen until the end of the season.

But now, all of a sudden, I was harvesting them before spring had even ended. I cannot describe how happy and proud I was. It felt like a giant step forward in my vegetable-growing journey. And the early harvest was just the beginning...



***Figure 58:** Iceberg lettuce reached full size by early June, but I had been picking a few leaves here and there well before that.*

The Harvest Kept Coming Week After Week And Month After Month

Soon, other vegetables started coming in too: an abundance of chard leaves, rutabagas, zucchinis, tomatoes, basil, late-maturing cabbage heads – and even a few squashes and cucumbers. There was so much produce that we had no problem filling our garden basket several times a week.

And the harvest kept coming until the first late-autumn frost finally put an end to the season.



Figure 59: As summer turned into fall, the late-maturing cabbage varieties kicked into gear. There is nothing better than seeing a full cabbage head waiting to be cut.

But Some Vegetables Just Did Not Make It

Of course, not everything went perfectly. A few vegetables just did not work out. I did not get any harvest from the eggplants, bell peppers, chili peppers, celery, or cauliflowers.

I had already mentioned the problem with the eggplants, bell peppers, chili peppers, and celery. It most likely came down to timing and the fact that they grew in an environment that was too cold for them early on. You see, I had started them too late, they developed slowly in the miniature greenhouse, and by the time I transplanted them, they were still quite small.

Unfortunately, once in the ground, they barely made any progress. Weeds quickly took over their patch and choked them out. Things got even worse in early June, right around the time I returned to work and could no longer keep up with the maintenance.



Figure 60: *The cauliflowers grew nicely at first, but we never got a harvest from them. I am still trying to figure out what exactly went wrong.*

As for the cauliflowers, they were constantly under pest attack. And I suspect I should have started them even earlier. You see, by the time they were ready to start forming heads, the temperatures had already turned summer-like. I think it was simply too hot for them to develop properly.

The End of an Adventure That Taught Me a Lot



When I created my vegetable garden blueprint at the start of the "coronavirus" gardening season, I was determined to bring it to life. And I was going to do it using homegrown vegetable seedlings...

There Was No Shortage of Work or Struggles

And while I did succeed with a big portion of it, and while I harvested more produce and harvested it faster than ever before, I have to admit, not everything turned out the way I hoped...

It was a ton of work. And I made quite a few mistakes and ran into more than a few setbacks along the way.

Here are the main ones that stood out:

- I had to deal with a nasty plant disease that wiped out several of my seedlings shortly after they sprouted.
- I grew multiple seedlings in the same pot, which slowed me down tremendously during transplanting.
- I transplanted seedlings during hot, sunny days which put them under serious stress. Some of them even died.
- I ignored crop rotation and planted cabbage, broccoli, and cauliflower in the same part of the allotment where pests from the brassica family had already built their home.
- I didn't get any harvest from the eggplants, bell peppers, chili peppers, celery, or cauliflowers.

But The End Result Still Made It All Worthwhile

But despite all of the mistakes and setbacks, I still achieved what I set out to do. I grew food for myself and my family. And looking back, I can honestly say it was one of the best vegetable-growing seasons I have ever had. Not just in terms of how much food I grew – but in how much I learned and experienced.

And as I finish writing this ebook, a new gardening season is already underway...

I have already planted lots of seeds, and many of them have sprouted. In fact, the only remaining miniature greenhouse is already full of pots. And I am building another one that will hopefully be even better than the existing one.

It will not be long before those sprouts turn into full-grown, harvest-ready plants.

Thanks for Reading and Stay in Touch

That is it. I hope you enjoyed following along on this little adventure through my "coronavirus" vegetable growing season. And more importantly, I hope you found something helpful – whether it is a bit of inspiration or a few useful tips about growing vegetable seedlings from seed at home. Maybe something from my successes, my mistakes, or everything in between.

I will be doing a few things differently in the future. I also plan to start creating videos on vegetable seed-starting on [Youtube](#). So if you would like to stay in touch, or if you have any questions or feedback, feel free to reach out through [my website](#) or find me on [Instagram](#) or [Facebook](#).

Thanks for reading, and good luck with your own vegetable growing adventures. You have this!



- Denis the Gardening Noob