GoalTodo

Start a vegetable garden, timed from your last frost date

Grow your own vegetables

9 weeks · Mon, Nov 30 → Sun, Jan 31

Week by week

Tick a box each time you do a session.

Nov 30–Dec 6
Week 1

Find your frost date and your sunniest spot

Plan

- [ ] Look up your last frost date with your local extension office or national weather service (in the UK, the RHS or the Met Office) and write it on a calendar. Make it the date on the plan page
  15 minutes
- [ ] Watch the spot you have in mind on a sunny day: note when direct sun first reaches it and when it leaves
  a quick look in the morning, at midday and late afternoon
- [ ] Choose three crops to start with: one tomato, a pot of basil, and salad leaves or radishes. Read "What to grow first" in the guide
  10 minutes
- [ ] Make a list of what you'll need and tick off what you already have: containers with drainage holes, potting mix, seed-starting mix, small pots, seeds and labels
  10 minutes

Done when: You know your last frost date, and you have a spot that gets 6 to 8 hours of direct sun, or at least 3 to 5 hours for salad leaves

Sticking point: If nowhere gets 6 hours of sun, grow lettuce, spinach and other leafy greens, which manage with 3 to 5 hours, and leave the tomato for a sunnier year or a sunnier spot.

Dec 7–13
Week 2

Get your containers and mix

Plan

- [ ] Gather containers with drainage holes: the biggest pot you can manage for the tomato, a 2- to 5-gallon (8 to 19 litre) pot for basil, and a wide trough, window box or large pot for salad and radishes
- [ ] Get potting mix for the containers and a fine seed-starting mix for sowing indoors. Not garden soil: it's too dense in a pot
- [ ] Get seeds, a few small pots or a seed tray with drainage holes, and labels
- [ ] Choose an indoor spot for seedlings: your brightest sunny windowsill, or a shelf where you can hang a plant light
  10 minutes

Done when: Everything is in one place, and every container has holes in the bottom

Sticking point: Don't put gravel or broken pot pieces in the bottom of containers. It doesn't improve drainage, and it can leave the mix waterlogged.

Dec 14–20
Week 3

Sow tomatoes and basil indoors

Indoors

- [ ] If this is your first week on the plan: check your last frost date, pick the sunniest spot you have, and get containers with drainage holes, potting mix, seed-starting mix, small pots, seeds and labels
  an hour or two
- [ ] Fill small pots with moist seed-starting mix. Sow tomato seeds at the depth on the packet, two or three to a pot, and label each pot with the name and date
  20 minutes
- [ ] Sow basil the same way
  10 minutes
- [ ] Cover the pots loosely with a clear plastic bag and keep them somewhere warm. Look for shoots each day
  a quick look

Done when: Tomato and basil seeds are sown, labelled and somewhere warm

Sticking point: Why not sow earlier to get ahead? Seedlings started too early grow long, pale and weak. Tomatoes take about 6 to 8 weeks from sowing to planting out, and they go out 1 to 2 weeks after your frost date, so this week is about right.

Dec 21–27
Week 4

Give your seedlings light

Indoors

- [ ] As soon as shoots appear, take off the bag and give the seedlings as much light as you can: a sunny windowsill, or 4 to 6 inches (10 to 15 cm) below a plant light
  5 minutes
- [ ] Seedling care: check the mix and water when the surface feels dry, and keep them in the brightest light you have
  a few minutes
- [ ] Once the seedlings have their first proper leaves, snip off the weaker ones at soil level so one strong seedling is left in each pot
  5 minutes

Done when: Each pot has one sturdy, green seedling that isn't stretching towards the window

Sticking point: Tall, thin, pale seedlings are reaching for light. Move them closer to the light or to your brightest window. A windowsill can be too dim on its own, which is why the University of Maryland Extension recommends grow lights for raising seedlings.

Dec 28–Jan 3
Week 5

Set up your containers

Outdoors

- [ ] Put your containers in their sunny spot and fill them with potting mix, leaving a little room at the top for watering
  30 minutes
- [ ] Water the mix well and let it settle. Top it up if it sinks
  10 minutes
- [ ] Seedling care: check the mix and water when the surface feels dry, and keep them in the brightest light you have
  a few minutes

Done when: Your containers are filled, watered and in place

Sticking point: A large container full of moist mix is heavy: a 20-inch pot can weigh about 100 pounds (45 kg). Fill it where it's going to stay.

Jan 4–10
Week 6

Sow salad and radishes outside

Outdoors

- [ ] Sow lettuce or mixed salad leaves thinly across a container, at the depth on the packet, and label it
  10 minutes
- [ ] Sow radishes in another container or at the other end, at the depth and spacing on the packet
  10 minutes
- [ ] Water gently with a fine spray so the seeds aren't washed out, and keep the surface damp until they come up
  a few minutes
- [ ] Seedling care: check the mix and water when the surface feels dry, and keep them in the brightest light you have
  a few minutes

Done when: Salad and radish seeds are sown outdoors and labelled

Sticking point: Lettuce, spinach and radishes are hardy and can be sown outside 2 to 4 weeks before your frost date. Tomatoes and basil can't: they stay indoors until after it.

Jan 11–17
Week 7

Thin and check every day

Outdoors

- [ ] Check your containers: push a finger into the mix and water if the top feels dry
  a quick look
- [ ] Thin salad and radish seedlings to the spacing on the packet. Eat the salad thinnings
  10 minutes
- [ ] Sow a second small batch of radishes or salad for a later picking
  10 minutes
- [ ] Seedling care: check the mix and water when the surface feels dry, and keep them in the brightest light you have
  a few minutes

Done when: Salad and radish seedlings are up and thinned, and a second batch is sown

Jan 18–24
Week 8

Get ready for frost

Outdoors

- [ ] Check the forecast for frost
  a quick look each evening
- [ ] Find something to cover each container on a frosty night: an old sheet, a light blanket, a box or a paper bag
  10 minutes
- [ ] Mark a planting-out day for the tomato and basil on your calendar: 1 to 2 weeks after your last frost date
  5 minutes
- [ ] Seedling care: check the mix and water when the surface feels dry, and keep them in the brightest light you have
  a few minutes

Done when: Covers are ready and your planting-out day is on the calendar

Jan 25–31
Week 9

Start hardening off

Frost week

- [ ] Days 1 to 3 of hardening off: on a warm day, put your indoor seedlings outside in a shaded, sheltered spot for a few hours, then bring them in
  2 to 3 hours, a little longer each day
- [ ] Days 4 to 7: leave them out longer and give them more direct sun each day. Still bring them in at night
  most of the day by day 7
- [ ] Keep them indoors on windy days or when it's below 45°F (7°C)
- [ ] Check the forecast for frost
  a quick look each evening
- [ ] Keep checking the outdoor containers and water if the top of the mix is dry
  a quick look

Done when: Your seedlings are spending most of the day outside, and your planting-out day is on the calendar. Carry on with "After your last frost date" in the guide

Sticking point: Your frost date is an average, so a frost can still come after it. If one is forecast, bring the seedlings in and cover the outdoor containers overnight.

How to start a garden

Starting a vegetable garden comes down to five things: a sunny spot, good soil or potting mix, a few easy crops, water, and timing. Timing is the part that catches people out, and it all hangs on one date: your last frost date, the average date of the last spring frost where you live.

Every sowing in this plan is counted back from that date, which is how extension services teach it: mark the date on a calendar and count back the weeks each crop needs. Hardy crops like lettuce, peas, spinach and radishes go outside 2 to 4 weeks before it. Tomatoes and peppers are started indoors 6 to 10 weeks before it and planted out after it. Beans, cucumbers and squash are sown outside once it has passed.

Start small. The University of Maryland Extension suggests 50 to 75 square feet (5 to 7 square metres) for a first garden, and a few containers is smaller still. You can add more next year.

How the plan works

Enter your last frost date as the plan's date. The last week of the plan is the week of your frost date, and every week before it sits a fixed number of weeks ahead of it: in the containers plan, tomatoes are sown 6 weeks before your frost date and salad goes outside 3 weeks before.

Your frost date ends the plan, not the garden. That week you start hardening off your indoor seedlings. The planting out that follows, when to sow beans, cucumbers and squash, and when to expect your first pickings are in "After your last frost date" below.

If your frost date is too close for the full plan, the plan page gives you a shortened version that leaves out planning weeks, and every sowing stays the right distance from your frost date. If it's closer than that, skip the indoor sowing: buy young tomato, pepper and basil plants to set out after your frost date, and sow the rest as the guide describes.

Depending on where you live, your first indoor sowing can fall in late winter. Go by your own frost date, not the month on someone else's calendar.

Finding your last frost date

Your last frost date is an average for your area, worked out from years of weather records. Use one for where you live, not a date from a book written for another region, and don't guess.

- In the US: ask your local Cooperative Extension office, or look up the spring freeze dates published by your nearest National Weather Service office.
- In the UK: the RHS and the Met Office both give guidance on frost and when it's safe to plant out tender crops.
- Elsewhere: your national weather service, or a university agriculture or extension service, is the place to ask.
- Little or no frost where you live? Ask your extension or agriculture service for your local planting months, then enter a date about two weeks before the window for planting out tomatoes opens.

Because it's an average, some years bring a frost after it. That's why the plan keeps you watching the forecast, and why tomatoes and peppers go out 1 to 2 weeks after the date, not on it.

Which level to pick

I've never grown anything (9 weeks): a few containers on a patio, balcony, doorstep or yard. One tomato, a pot of basil, and salad leaves and radishes. Containers are small, easy to keep an eye on, and you can put them where the sun is.

I've grown herbs or a few plants (12 weeks): a small bed in the ground or a raised bed. Peppers, tomatoes and basil from seed, peas, spinach, lettuce and radishes, with room for beans, cucumbers or squash after the frost. It starts earlier because it adds a soil test and getting the bed ready.

If you're not sure, start with containers. A small first year that goes well sets you up for a bigger second one.

Choosing a spot

Sun matters more than anything else. Tomatoes, peppers, squash and other fruiting crops need 6 to 8 hours of direct sun a day. Lettuce, spinach and other leafy greens manage with 3 to 5 hours. Watch your spot on a sunny day and note when direct sun reaches it and when it leaves.

Also look for:

- level ground, away from the shade of trees, shrubs and buildings
- water close by: you'll water often, and containers can need it every day in hot, dry weather
- somewhere you pass every day, so you notice when plants need you

If deer, groundhogs or other animals visit, plan a fence.

Containers, raised beds or the ground

Containers suit a first year, a balcony, or a yard with poor soil. The RHS points out that where space is short you can grow most vegetables in containers.

- Every container needs drainage holes. Gravel or broken pot pieces in the bottom don't improve drainage and can leave the mix waterlogged.
- Go big for a tomato: it grows larger and gives more fruit as the pot gets bigger. Basil grows well in a 2- to 5-gallon (8 to 19 litre) pot. Salad leaves and radishes are happy in a wide trough or window box.
- Use potting mix, not garden soil, which is too dense in a pot.
- Dark containers can overheat roots in summer, and clay or wood pots dry out faster than plastic.

Raised beds warm up faster in spring, which helps on cold, clay soil. They can be framed with boards or simply mounded with sloped sides, and you can fill a new one with topsoil and compost.

In the ground costs least if your soil is reasonable. Clear grass first: smother it with cardboard or newspaper under 2 to 4 inches (5 to 10 cm) of compost, or dig the turf in, or lift it and keep it for compost, since it holds good topsoil.

Soil and compost

Good vegetable soil is deep and crumbly, drains well and has plenty of organic matter. Compost is how you get there.

- Test before you dig a bed. A soil test tells you nutrient levels and pH and, in the US, whether lead levels are safe for growing food. Your extension office can tell you how to send a sample. Add only the fertiliser or lime the results call for.
- Bare ground: spread at least 2 inches (5 cm) of compost over the soil and dig it in. After that, add a thin layer each time you plant.
- Containers: use potting mix. Compost can make up a good share of what you fill them with.
- Wait for dry soil. Dig or sow once a handful crumbles, not while it's wet and sticky.

What to grow first

Grow what you like to eat. The University of Maryland Extension lists some of the easiest vegetables as bush beans, tomatoes, cucumbers, peppers, lettuce, summer squash and leafy greens such as Swiss chard and kale.

A short first-year list, by when it goes in:

- Outdoors, 2 to 4 weeks before your frost date: lettuce or salad leaves, radishes, spinach, peas
- Started indoors, planted out after it: tomatoes, peppers, basil
- Sown outdoors after it: bush beans, cucumbers, summer squash

Pick a handful of these rather than everything at once, and keep experiments for next year.

Starting seeds indoors

Tomatoes, peppers and basil need a long, warm season, so they get a head start indoors. Counting back from your frost date:

- Peppers: 8 to 10 weeks from sowing to planting out, then out about 2 weeks after your frost date
- Tomatoes: 6 to 8 weeks from sowing, then out 1 to 2 weeks after your frost date
- Basil: 6 to 8 weeks, then out about 2 weeks after

How to do it:

1. Fill small pots or a seed tray, with drainage holes, with moist seed-starting mix, not garden soil.
2. Sow at the depth on the packet, two or three seeds to a pot, and label each one.
3. Cover loosely with a clear plastic bag and keep them warm.
4. As soon as shoots appear, take the bag off and give them as much light as you can: a sunny windowsill, or 4 to 6 inches (10 to 15 cm) below a fluorescent plant light. If windowsill seedlings stretch and lean, add a light.
5. Thin to the strongest seedling in each pot.

Don't sow early to get ahead: seedlings started too early grow long, pale and weak. If raising seedlings isn't for you this year, buy young plants to set out after your frost date instead.

Hardening off

Seedlings raised indoors have to get used to sun, wind and cooler air before they're planted out. This is hardening off. Start it 1 to 2 weeks before your planting-out day. In this plan that's the week of your frost date.

- Begin with a few hours outside in a shaded, sheltered spot on a warm day, and bring them in at night.
- Each day, give them a little more time outside and a little more sun.
- Keep them in on windy days and when it's below 45°F (7°C).
- Even hardened off, tender plants can't take a freeze, so keep watching the forecast.

Watering

- Seeds and seedlings: little and often, so the surface stays damp while seeds come up.
- Established plants: water deeply around the base, less often, so the roots stay moist. Water in the morning when you can.
- Containers: they need more frequent watering than beds. Until you learn how quickly yours dry out, check them every day, especially in summer, and feel the mix before you water rather than watering on a schedule.
- Beds: a soaker hose or drip line saves water.

If a late frost is forecast

Check the forecast every day in the weeks around your frost date and after you plant out. If frost is forecast:

- Bring seedlings and small containers indoors overnight.
- In the evening, cover tender plants in the bed or in large containers with floating row cover, a light blanket or old sheet, a tarp, a basket or a paper bag. Take covers off once the frost has passed.

Hardy crops already outside, like lettuce, peas, spinach and radishes, can usually take a light frost. Tender crops, like tomatoes, peppers, basil, beans, cucumbers and squash, can't.

After your last frost date: planting out and first harvests

The plan ends in your frost week, and the summer garden starts there.

- 1 to 2 weeks after your frost date: plant out hardened-off tomatoes. Choose a cloudy, calm afternoon if you can, and water them in well.
- About 2 weeks after: plant out peppers and basil.
- Once frost has passed and the soil has warmed: sow beans, cucumbers and squash straight into the bed or a large container. Cucumbers and squash don't like their roots disturbed, so sowing them where they'll grow is simplest.
- Give tomatoes, peppers and cucumbers stakes or a trellis.

Rough times to the first picking, from Colorado State University Extension: radishes about 30 days from sowing, summer squash about 50, cucumbers about 55, snap beans about 60 and peas about 65. Peppers take about 70 days from planting out. Pick salad leaves as soon as they're big enough: lettuce and other greens can be cut twice before a plant needs replacing.

For a steady supply, sow small batches of salad and radishes every few weeks, and sow lettuce and spinach again in midsummer for an autumn crop. When the harvest comes in, the Cook at home plan can help you use it.

Common mistakes

- Starting too big. A small garden you keep up with is better than a big one lost to weeds. Add more next year.
- Sowing too early. Indoor seedlings get leggy and weak, and tender plants put out too soon sit in cold soil where their roots don't grow well.
- Planting tomatoes out on the frost date. It's an average. Wait 1 to 2 weeks and watch the forecast.

- Skipping hardening off. Seedlings that go straight from windowsill to garden have a hard time.
- Too little sun. A spot with 3 hours of sun suits salad, not tomatoes.
- Watering on a schedule. Feel the soil or mix first.
- Gravel in the bottom of pots. It doesn't help drainage.

If you fall behind

Missed 1 week: Do this week's tasks and the sowing you missed. A week late is fine for salad, radishes and peas, and tomatoes or peppers sown a week late just go out a little later. Keep your frost date as it is: it doesn't move.

Missed 2 weeks: Catch up on sowings first and leave out planning tasks you can do later. If you missed sowing tomatoes or peppers indoors, sow them now and plant them out a week or two later than planned, or buy young plants to set out after your frost date.

Missed 3 weeks: Skip the indoor sowings you missed and plan to buy young tomato, pepper and basil plants to set out 1 to 2 weeks after your frost date. If you're still before your frost date, sow salad, radishes, spinach and peas now.

Missed 4 or more weeks: Switch to the summer part of the garden: buy young plants for the tomatoes, peppers and basil, sow beans, cucumbers and squash once the frost has passed, and follow "After your last frost date" in the guide. Lettuce and spinach can be sown again in midsummer for autumn. If it's too late for this year, enter next year's frost date on the plan page.

Sources

University of New Hampshire Extension
`https://extension.unh.edu/resource/growing-vegetables-when-plant-your-vegetable-garden-fact-sheet`
“You must first, determine the last frost date for your area.”

University of New Hampshire Extension
`https://extension.unh.edu/resource/growing-vegetables-when-plant-your-vegetable-garden-fact-sheet`
“Do not seed or transplant frost-sensitive plants before this date.”

University of New Hampshire Extension
`https://extension.unh.edu/resource/growing-vegetables-when-plant-your-vegetable-garden-fact-sheet`
“Using a calendar, mark the date and count backwards the number of weeks the seed takes to grow from sowing.”

Colorado State University Extension
`https://extension.colostate.edu/resource/vegetable-planting-guide/`
“Because cool-season vegetables prefer cool growing temperatures, they are often planted in early spring and replanted mid-summer for fall harvest.”

Colorado State University Extension
`https://extension.colostate.edu/resource/vegetable-planting-guide/`
“Very tender vegetables are not only intolerant of frost, but also cool spring winds.”

Colorado State University Extension
`https://extension.colostate.edu/resource/vegetable-planting-guide/`
“Soil temperature is one of the best methods to determine spring planting time.”

Rutgers Cooperative Extension
https://njaes.rutgers.edu/fs787/
“Because tomatoes take about 6 to 8 weeks from seeding to transplant, seeding indoors should take place between mid-March and April 1.”

Rutgers Cooperative Extension
https://njaes.rutgers.edu/fs787/
“Plants that are started too early become elongated, pale green, and weak.”

Rutgers Cooperative Extension
https://njaes.rutgers.edu/fs787/
“Once the seedlings emerge, remove the plastic bag and give the seedlings as much light as possible by placing them on a sunny window sill or 4 to 6 inches below a fluorescent light.”

University of Maryland Extension
https://extension.umd.edu/resource/growing-vegetables-containers-and-salad-tables
“You’ll need 6 to 8 hours of direct sun for warm-season crops (tomato, pepper, eggplant, squash) and 3 to 5 hours of direct sun for cool-season crops (lettuce, spinach, Asian greens).”

University of Maryland Extension
https://extension.umd.edu/resource/growing-vegetables-containers-and-salad-tables
“Adding rocks, gravel, or broken pot shards to the bottom of a container will not improve drainage.”

University of Maryland Extension
https://extension.umd.edu/resource/growing-vegetables-containers-and-salad-tables
“Until you get accustomed to how often certain containers tend to dry out, check containers DAILY to see if they need water, especially in summer.”

University of Maryland Extension
https://www.extension.umd.edu/resource/how-start-vegetable-garden
“A good starter size is 50-75 square feet.”

University of Maryland Extension
https://www.extension.umd.edu/resource/how-start-vegetable-garden
“Some of the easiest vegetables are bush bean, tomato, cucumber, pepper, lettuce, summer squash, and leafy greens (Swiss chard, kale, mustard, etc.).”

University of Maryland Extension
https://www.extension.umd.edu/resource/how-start-vegetable-garden
“If you're starting with bare ground (no grass to remove), add at least two inches of compost on top of your soil and dig it in.”

University of Maryland Extension
https://extension.umd.edu/resource/hardening-vegetable-seedlings-home-garden
“Begin hardening transplants 1-2 weeks prior to setting out plants in your garden.”

University of Maryland Extension
https://extension.umd.edu/resource/hardening-vegetable-seedlings-home-garden
“The easiest way to harden transplants is to place them outside in a shaded, protected spot on warm days, bringing them in at night.”

University of Maryland Extension
https://extension.umd.edu/resource/hardening-vegetable-seedlings-home-garden
“Don’t put tender seedlings outdoors on windy days or when temperatures are below 45° F.”

University of Maryland Extension
https://extension.umd.edu/resource/when-plant-vegetables

“After planting, closely monitor weather forecasts and be prepared to protect tender plants from frost using floating row covers, lightweight blankets, tarps, baskets, or paper bags.”

University of Maryland Extension
`https://extension.umd.edu/resource/when-plant-vegetables`
“Starting seedlings indoors requires the use of grow lights to provide enough light intensity and duration to produce good-quality transplants.”

Royal Horticultural Society
`https://www.rhs.org.uk/advice/beginners-guide/vegetable-basics/planning-a-vegetable-garden`
“Don't forget that where room is at a premium, you can grow most vegetables in containers.”

Royal Horticultural Society
`https://www.rhs.org.uk/advice/beginners-guide/vegetable-basics/planning-a-vegetable-garden`
“Using raised beds can help the soil warm up quicker.”

This plan online	`https://goaltodo.com/grow-vegetables`
Reach it with others on Welang	`https://welang.com/goals`
Reach it on your own in HourLife	`https://www.hourlife.com`