AMBITIOUS HARVEST

Strawberry Planting Guide

Bare-root plants for the Santa Cruz Coast

From the bundle of roots in your hand to a small, productive patch of homegrown berries.



Plant promptly
Set out your late-November plants while the roots are still moist.

Set the crown
Cover every root while keeping the growing tip above soil.

Keep tending
Check moisture, manage runners and pick berries when ripe.

START HERE

A small patch, a clear plan

Start with a healthy plant, a sunny place and water that reaches the roots.

This guide accompanies bare-root strawberry plants handed out in late November. It is written for home gardeners on the Santa Cruz coast and in nearby county microclimates, with separate notes for containers and colder inland gardens.

You can grow one variety by itself. Choose a day-neutral for repeated small harvests, or a short-day variety for a more concentrated crop. The planting method stays much the same; the calendar and flower management need more care.

Find what you need

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Plants already in hand?

1. Put the bundle somewhere cool and shaded. Keep the roots moist while you prepare to plant.
2. Plan to plant promptly after you receive them. Follow any handling instructions supplied with the plants.
3. If the bed is ready and soil is workable, plant now. If it is waterlogged, use a suitable container or ask how to hold the plants briefly while the ground drains.

The planting record on the back page is meant to be written on. Print just that page again when you start another bed. Both PDF editions use white pages for home printing.

Source notes: S1, S4, S5, S6. Linked references on page 17.

Types and varieties

Choose a harvest pattern first. Then choose a named variety that suits your garden.

Day-neutral	Flowers without a short-day trigger. Can crop over a long season while temperatures suit growth. A practical starting point for regular fresh picking on the mild coast.
Short-day (June-bearing)	Forms flower buds in response to shorter days and cool conditions. Usually gives a more concentrated crop. “June-bearing” is a type name, not a promise that Santa Cruz fruit arrives only in June.
Older everbearing types	Often give separate crops rather than the long pattern of day-neutrals. Retail labels sometimes call day-neutrals “everbearing,” too. Ask for the cultivar name.

Four varieties to ask about

Variety	Type	Why consider it?
Albion	Day-neutral	Firm, flavorful fruit. A useful variety to compare with another day-neutral in your own garden.
Seascape	Day-neutral	A familiar home-garden and container choice for a spread-out harvest.
Monterey	Day-neutral	Large fruit and good flavor. Keep an eye on powdery mildew; it is listed as susceptible.
Chandler	Short-day	A choice for a concentrated spring crop. Confirm the planting stock and season with the nursery.

Buy for plant health as well as flavor

Buy labeled, healthy plants from a reputable nursery, preferably certified clean stock. Resistance is disease-specific, not immunity to rot or poor drainage. Ask about availability before planning around a variety.

Source notes: S2, S3, S5, S6, S7. Linked references on page 17.

When to plant

Plant your late-November bare-root strawberries promptly after you receive them.

These plants are for planting now

Keep the roots moist and get the plants into prepared soil or suitable containers as soon as practical. **Do not hold them until spring.** If the ground is waterlogged, use a container that drains or arrange a short delay with the supplier's handling instructions.

Fall planting is well established on the Central Coast. UC includes fall planting for day-neutral strawberries, and late October through late November in its Central Coast day-neutral planting table. The best timing still depends on variety and nursery stock, so follow any specific instructions supplied with your plants.

Before you start

- Find the variety label and keep it with the plants.
- Choose a sunny bed with good drainage, or prepare a suitable container.
- Have water ready, even if rain is in the forecast.
- Plant with every root covered and the growing tip above the soil.

Read your own garden

Coast and Pajaro Valley	Give rain-soaked soil time to drain. Foggy weather can keep foliage and fruit damp even when roots need water. Check both.
Valley floors and cold pockets	Light frost does not automatically rule out planting dormant crowns. Tender new growth and open flowers need more attention when freezing weather is forecast. Keep frost cloth ready.
Sunny inland slopes	Avoid letting newly planted roots dry during warm, windy weather. Have water in place before planting and check the actual soil after irrigation.

If weather prevents planting, keep roots moist and protected and ask the supplier how to hold this stock briefly. Do not plant into standing water or frozen ground.

Source notes: S1, S4, S6, S8, S13. Linked references on page 17.

Handle the roots gently

A bare-root plant can look quiet and unimpressive. Its crown and roots are the parts you need to protect.

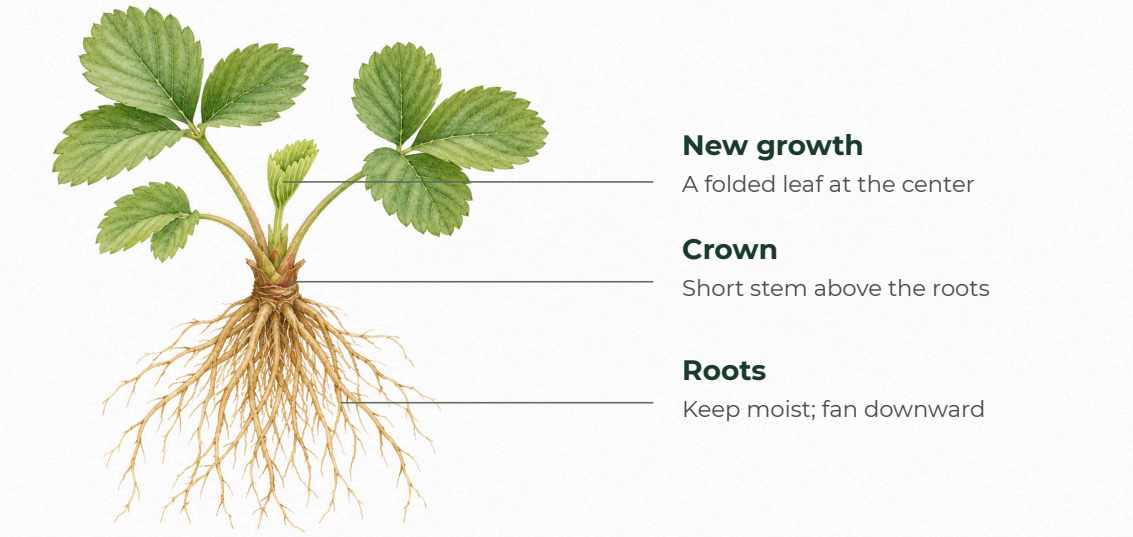


Illustration is not to scale. Dormant bare-root stock may have much less visible foliage.

At purchase or delivery

Check the label and count the plants. Crowns should be firm. Contact the supplier about obviously rotten, slimy or badly dried stock. Dark old roots alone do not prove a plant is dead.

Plant promptly. For a short unavoidable delay, keep roots moist, out of sun and wind, and follow the supplier's storage directions. Purdue recommends shade or refrigeration; do not let roots dry on the bench.

While you work

- Work with a few plants at a time, keeping waiting roots covered with damp material or in clean water.
- Follow supplied rehydration directions. Do not routinely soak crowns overnight.
- Dig a hole that fits the roots. Trim only if excessive length prevents correct placement, retaining at least **4 inches** of root.
- Use plain water for handling. Do not add fertilizer to soaking or transplant water; new roots are sensitive to salts.

Source notes: S4, S6, S8. Linked references on page 17.

Give roots a good home

Choose the sunniest suitable place, remove persistent weeds and solve drainage problems before planting.

Sun and access

Strawberries fruit best in full sun. Look at the site across the day, including shadows from fences and trees. A spot you can reach easily for watering and frequent picking is more useful than a crowded corner you rarely visit.

Soil that holds moisture and drains

Strawberries need both air and water around their roots. Work the soil when it is moist enough to crumble, not sticky and saturated. Remove perennial weed roots now; digging them out later can damage strawberry roots.

In a new bed, incorporate mature compost or other appropriate organic matter before planting. UC gives a soil pH range of **6.0 to 6.5**. Use a soil test to guide pH correction and nutrient additions; do not add lime, sulfur or extra phosphorus simply because a general recipe lists them.

In-ground bed	A good option when the native soil drains freely. Make sure paths and adjoining ground do not funnel runoff into the planting.
Mounded or raised bed	Useful where ground stays wet. UC suggests planter boxes at least 12 inches deep. Water still needs a way to leave the bed. Where gophers are active, install a suitable wire-mesh barrier underneath before filling.
Container	Useful when you have a sunny patio or unsuitable garden soil. Use a container mix and real drainage holes. See page 10.

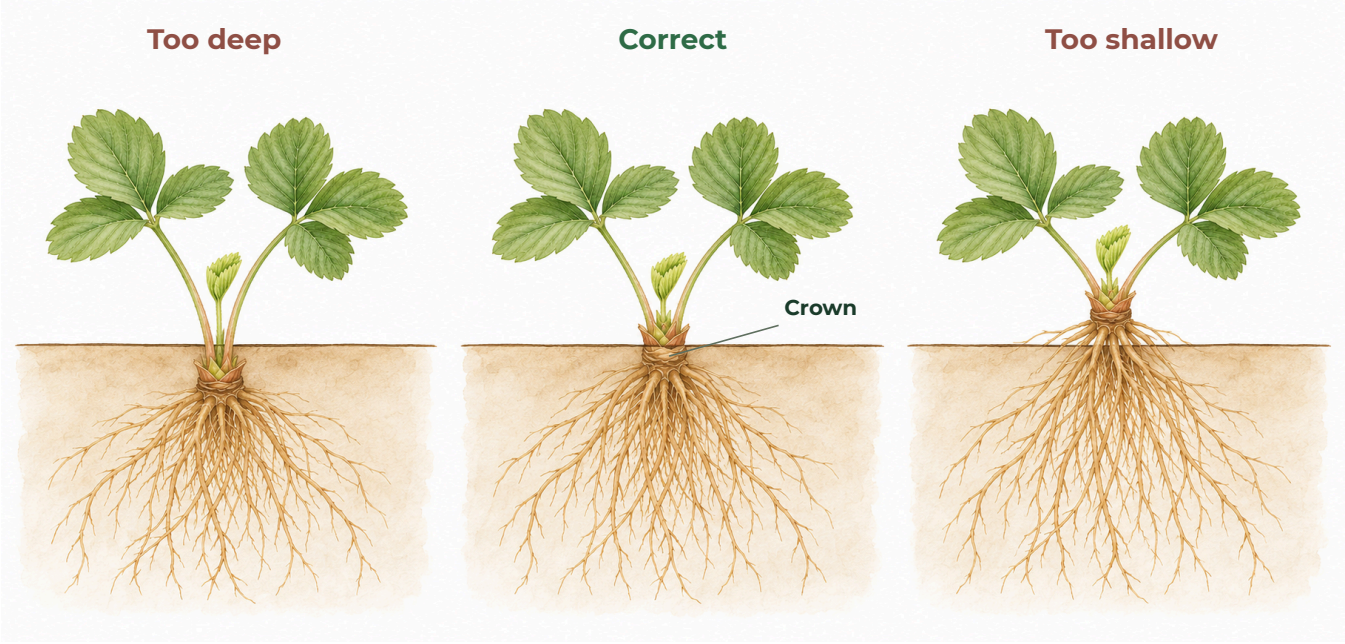
Check what grew here before

Avoid replanting into a declining strawberry patch or following crops that can share Verticillium problems, including tomatoes, potatoes and eggplant. A short crop rotation does not guarantee that diseased soil is clean. If wilt has been diagnosed, get local advice before moving plants or soil into another bed.

Source notes: S1, S4, S6, S9, S10. Linked references on page 17.

Get the crown depth right

The middle of the crown belongs at the finished soil surface. Every root is covered; the growing point stays above soil.



Too deep	Correct	Too shallow
Growing point buried. Lift and reset the plant.	Mid-crown at soil level. Cover roots; leave tip open.	Upper roots exposed. Add soil or reset lower.

Simplified cross-sections, not to scale. The horizontal line is the finished soil surface, not the mulch surface.

Find the crown	Look for the short, thick central stem where leaves arise and roots begin. It is not a seed or bulb to bury under a layer of soil.
Cover the roots	Fan roots downward into a hole deep enough to hold them without folding the tips upward. Do not curl the roots into a tight ball or make a J shape.
Keep the tip open	Soil should meet the middle of the crown. Keep the growing point and new leaves visible, with the topmost roots covered.
Recheck after watering	Settling soil can pull the plant down or expose roots. Correct the level before adding mulch, then look again after heavy rain.

Source notes: S4, S5, S6, S8. Linked references on page 17.

Planting, step by step

Prepare the whole space first, then handle one plant at a time.

1. Lay out the plants

Mark the plant centers using the plan on the next page. Set labels in place. Test the irrigation so you know water reaches each planting position.

2. Moisten the soil

If the bed is dry, water before planting. Let excess water drain away. A wet root planted into dry surrounding soil can still dry out.

3. Open a roomy hole

Use a trowel to make a hole deep and wide enough for roots to spread downward. A small soil mound inside can help support the plant while the roots fan around it.

4. Hold the crown in position

Keep the middle of the crown at the surrounding soil surface. Support the crown while you gently work soil between the roots.

5. Backfill and firm

Fill gaps without cramming the roots together. Firm gently with your fingers to remove large air pockets. Do not pack saturated soil into a hard plug.

6. Water to settle

Water the planting area thoroughly. Watch for settling and refill low spots. Reset a buried crown or cover exposed roots while the soil is still easy to adjust.

7. Mulch and label

Add a light, loose mulch around the plants, leaving crowns open. Keep irrigation tubing from resting against the crown. Record the variety and planting date.

8. Check again

Look at the roots' actual growing space after watering. Confirm the emitter wets soil near the roots, not just a small spot somewhere beside the plant.

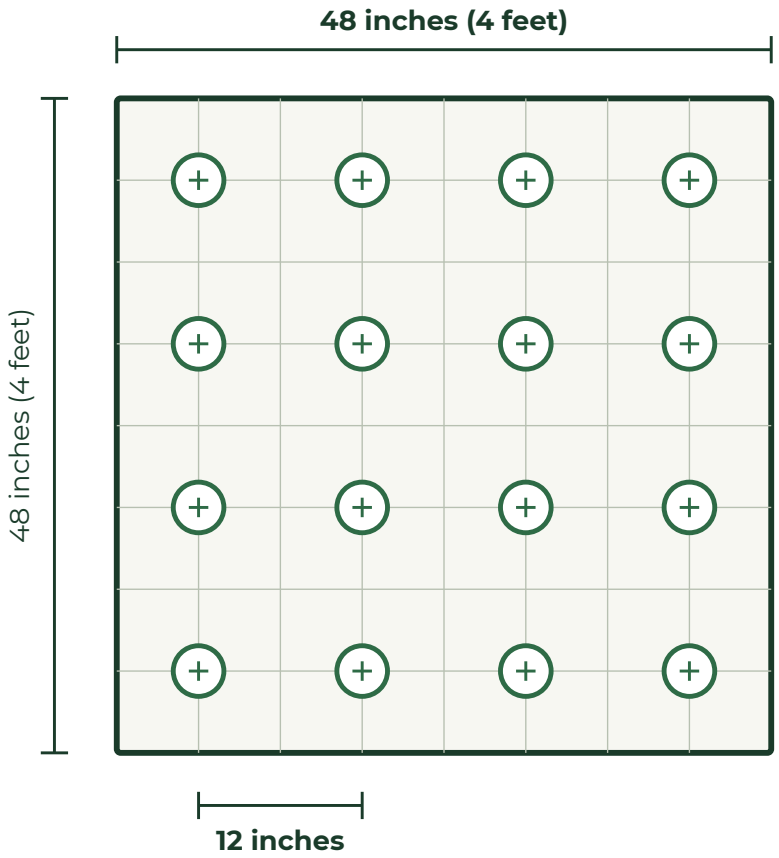
Before you put the tools away

- ☐ Growing tips above soil
- ☐ No roots folded upward
- ☐ Water reaches each plant
- ☐ All roots covered
- ☐ Labels match the plants
- ☐ Planting record filled in

Source notes: S4, S6, S8. Linked references on page 17.

Plan your strawberry bed

A 4 by 4 foot bed can hold 16 plants at 12-inch spacing. Keep runners from filling the gaps.



16 plants

12 inches center to center

6 inches from bed edge

Each grid square = 6 inches

A simple home-bed grid using 12-inch spacing.

Remove runners to keep this layout from filling in.

This example is a 4 by 4 foot bed with 16 plants. Plant centers are 12 inches apart in both directions, with the outer centers 6 inches from the inside edge. Measure the usable soil area, not the outside of the wooden frame.

UC describes managed two-row beds with about 12 inches between plants and rows. This home-bed grid uses that spacing. Allow more room if your nursery recommends it for a vigorous variety.

Keep this layout productive

- Keep access paths outside the bed and reach in without stepping on roots.
- Remove unwanted runners so daughter plants do not fill the gaps.
- Label each variety so you can compare its growth and harvest.

Source notes: S1, S5, S6; bed geometry calculated from the dimensions shown. Linked references on page 17.

Grow in a container

A sunny pot can be a useful alternative to a wet bed, and a good way to start small.

Choose the pot and mix

For an uncomplicated first planting, give **one plant a pot at least 12 inches across and 12 inches deep**. That fits within extension container guidance and gives you room to water and inspect the plant. Bigger containers buffer changes in moisture better, but still need drainage and enough space per plant.

Use a pot with open drainage holes and a good-quality container potting mix. Garden soil can compact in a pot. Avoid making a gravel layer at the bottom; a well-drained mix and unobstructed holes are what you need.

Before planting	Moisten the mix evenly. Fill the pot and allow space at the top for watering. Set the crown at the finished mix surface, not at the pot rim.
After watering	Let excess water escape. Empty a saucer that keeps the base sitting in water. Recheck the crown if the mix settles.
In warm weather	Check frequently. A small pot or hanging basket can dry much faster than the garden. Water according to the root-zone moisture, not the bed's schedule.
Feeding	Read the potting-mix bag for fertilizer already included. Use a fertilizer labeled for edible container plants at its stated rate and interval. Do not stack several products.

Keep the container manageable

Remove runners that trail into neighboring pots unless you are deliberately keeping a healthy replacement. Turn or reposition pots only when useful for light and access; do not repeatedly move stressed plants into hotter exposure. Check beneath hanging fruit for slugs and damaged berries.

Tall strawberry planters need extra checking: confirm that every planting pocket receives water and drains. A simple wide pot is easier to learn on.

Source notes: S5, S6, S9, S14, S21. Linked references on page 17.

09 / DAILY CARE

Water, mulch and weather

Aim for evenly moist soil around the roots, with air in the soil and dry time for flowers and fruit.

Learn what your irrigation actually does

Check close to the roots with your finger or a small trowel, taking care not to disturb the plant. A damp surface can hide dry soil below; a dry surface can sit above a wet root zone. Water when the root zone needs it, and let excess drain away.

Newly planted bare-root stock needs close attention while roots establish. As plants develop leaves, drip irrigation is a useful way to water soil without repeatedly wetting fruit. Put emitters close enough to wet the roots but keep tubing away from crowns. Adjust for winter rain, soil texture, wind and the much faster drying of containers.

Mulch lightly

A loose layer of clean straw or another suitable organic mulch helps reduce evaporation and keeps berries from direct soil contact. Leave an open ring around each crown.

Check under mulch for wetness and slugs. Thin it if it mats down, stays soggy or covers new growth. A deep winter blanket used in snowy climates is not the default for the Santa Cruz coast.

Respond to the weather

Rain and fog: reduce irrigation when soil stays wet. Improve airflow and remove decaying fruit.

Heat and wind: check pots and new plants more often. Temporary shade can help during a severe heat spell.

Frost: cover vulnerable growth overnight with frost cloth supported over the bed. Secure the edges and remove or open it in daylight so pollinators can reach flowers.

Wilting does not always mean “add water”

Check the soil first. Dry roots, waterlogged roots, a buried crown and disease can all cause wilting. Repeatedly watering an already soggy plant can make the problem worse.

Source notes: S4, S9, S11, S12, S13, S22. Linked references on page 17.

Feeding and first flowers

Support growth with modest feeding and a flower-removal plan that matches the plant type.

Feed according to the soil and the product

Before planting, use soil-test results and the existing fertility of the bed to decide what is needed. If you use a preplant fertilizer, follow its label and keep concentrated material away from roots and crowns. Do not add fertilizer to transplant water.

Established day-neutrals can benefit from light feeding while they are growing and fruiting. Short-day plants have a different cropping cycle, so follow guidance for that type rather than repeatedly feeding every plant on the same schedule. Check what is already in container mix before adding more.

More fertilizer cannot repair poor drainage or a crown planted too deeply. Lots of dark, leafy growth with little fruit is a reason to check type, season, light and nitrogen, rather than automatically add bone meal or a stronger feed.

What to do with the first flowers

Weak new day-neutral	Let roots and leaves establish before carrying fruit. UC recommends removing the first two flower clusters when new day-neutral plants are not growing well. Snip the flower stem carefully without damaging the crown.
Vigorous new day-neutral	Follow the nursery's establishment advice. University recommendations differ on how long to remove flowers. A fixed number of weeks is not a rule for every plant and planting season.
Short-day plant	Fall-planted stock and a spring-planted perennial patch are managed differently. For August-planted short-day plants, UC notes that removing the first fall blossoms may improve the next spring crop. Confirm the plan for your nursery stock.

Record any flower removal and dates on the planting record.

Source notes: S1, S6, S8, S10, S15. Linked references on page 17.

Your strawberry year

Start with late-November planting, then follow the plants through winter and into their first harvest season.

Stage	What to do
Before planting	Prepare the growing space for the plants you are receiving now. Remove persistent weeds, check drainage, mark plant positions and test irrigation.
Late November	Plant promptly. Keep roots moist, fan them down into the hole, set mid-crown at soil level, water to settle, recheck depth and label every variety.
First few weeks	Check moisture and crown level often. Watch for new leaves and pest damage. Follow the flower-management plan for your plant type; growth can be slow in cool weather.
Winter rain and cold	Adjust irrigation to rainfall. Keep drains open and soil from washing over crowns. Protect vulnerable new growth and flowers when frost threatens.
Spring growth and bloom	Watch the plants rather than expecting a fixed first-flower date. Keep crowns open, allow pollinator access and avoid leaving flowers wet into the evening.
When fruit ripens	Pick ripe fruit frequently. Remove spoiled berries. Maintain even moisture, remove unwanted runners and check under leaves for slugs or disease.
After the main crop	Keep living plants watered as needed. Remove dead leaves and unwanted runners. Assess spacing and health. Day-neutrals may continue cropping while conditions suit them.
Next late summer and fall	Review the season and plan any replacements. If keeping permitted runners, root them in clean mix from healthy plants only. Check the bed's history before replanting.

Record planting, first new leaves, first flowers and the first ripe berry on the last page. Your own observations will help you plan next season.

Source notes: S1, S4, S6, S11, S12, S13. Linked references on page 17.

Runners and renewal

A runner can become a new plant. It can also turn a well-spaced patch into a crowded mat.



A runner is a horizontal stem connecting the parent to a daughter plant. Illustration is botanical, not a planting-depth diagram.

For the patch you are harvesting

Snip unwanted runners with clean scissors rather than tugging at the mother plant. Keep the space between crowns open for picking and airflow. In this guide's bed layout, runners are removed unless you deliberately choose a replacement.

If you want to keep a daughter plant

First check the plant label and nursery guidance for propagation restrictions. Choose a vigorous, healthy parent. Pin one daughter to clean soil or a small pot of fresh mix while it is still attached. Keep its roots moist, then separate it after it has rooted well enough to grow independently.

Do not use runners from a patch with unexplained wilting, repeated rot or pest problems. A daughter plant can carry its parent's infections. Clean nursery plants are the better choice when the old patch is declining or its health is uncertain.

Plan to replace, rather than nurse forever

UC recommends replacing plantings with new nursery plants every two to three years, or earlier when pest problems cause decline. Yield often falls after the first full season; year two is not automatically the peak. Assess health and performance rather than keeping a plant just because it is still alive.

Source notes: S1, S4, S6, S9. Linked references on page 17.

13 / LOOK BEFORE TREATING

Common problems

Symptoms are clues. Inspect the roots, crown, leaves and fruit before choosing a response.

What you see	What to check	First response
Wilted new plant	Dry soil, buried crown, exposed roots, poor drainage or unhealthy stock.	Check moisture and planting depth. Correct those first; do not keep watering saturated soil.
Gray fuzzy fruit	Botrytis gray mold, especially in cool, damp weather.	Remove decayed berries and dead material, pick ripe fruit, improve airflow and reduce prolonged wetness.
Holes and slime trails	Slugs or snails feeding at night.	Inspect after dark, handpick and remove nearby hiding places. Keep mulch from becoming a wet mat.
Powdery leaf undersides; edges curl up	Powdery mildew can be subtle on strawberry leaves.	Improve light and spacing; remove affected tissue. Confirm the diagnosis before any treatment.
Small or misshapen fruit	Uneven moisture, pollination, frost injury, crowding or insect feeding.	Look for a pattern and inspect flowers and fruit. One misshapen berry does not identify the cause.
Lots of leaves; little fruit	Variety, plant age, season, shade and excess nitrogen.	Check the label and growing conditions before adding fertilizer.
Persistent wilt in moist soil	Root or crown disease; several pathogens can look alike.	Do not move suspect plants or soil into another bed. Seek a diagnosis and use clean stock for replacements.
Ripe fruit disappearing or pecked	Birds or other wildlife.	Identify the visitor. If using a barrier, support it securely, inspect it daily and keep pollinator access during bloom.

Keep pest control specific

Identify the problem first. Start with sanitation and better growing conditions. If treatment is needed, use a product labeled for strawberries and that pest, follow all directions and protect pollinators.

Source notes: S4, S9, S12, S16, S17, S18. Linked references on page 17.

Harvest and storage

Pick for ripeness, handle gently and cool the berries promptly.

Pick ripe fruit

Check the plants frequently once berries begin coloring. Choose fully red fruit with the aroma and flavor you like; strawberries do not develop more ripeness after picking. Lift leaves carefully to find hidden berries and use a shallow, clean container so the bottom layer is not crushed.

Pick when fruit is cool and dry when practical. Keep the green cap attached until you prepare the berries. Move the harvest out of the sun, remove spoiled berries and refrigerate promptly. Do not leave decaying fruit in the patch to spread disease.

Keep quality

Store berries unwashed until you are ready to use them. Choose a container that protects them without trapping excess moisture. Check the harvest often; softness and mold can spread quickly through a crowded bowl.

A small, frequent harvest is easier to use than a basket left on the counter. Record a rough amount or weight if you want to compare varieties, but expect the result to reflect weather and care as well as genetics.

Handle food safely

FDA recommends a refrigerator at **40°F or below** for perishable produce such as strawberries. Wash hands and keep harvest tools, work surfaces and berries separate from raw meat and poultry.

Before eating or preparing berries, rinse under running water. Do not use soap, detergent or commercial produce wash. Discard rotten fruit; rinsing does not make spoiled fruit sound again.

If you have more than you can eat

Freeze sound berries for later use, or follow a current, tested preserving recipe from a university extension or Master Food Preserver program. This planting guide does not provide canning or shelf-stable storage instructions.

Record your favorite variety and any watering or drainage changes you would make next season.

Source notes: S12, S19, S20. Linked references on page 17.

Sources and more help

University guidance anchors this guide. Local conditions and the nursery's stock instructions still matter.

S1 · UC IPM
Cultural Tips for Growing Strawberry

S2 · UC IPM
Characteristics of Strawberry Cultivars Commonly Grown in California

S3 · UC Davis
Strawberry Licensing Program: cultivar descriptions

S4 · UC IPM
Handling Strawberry Transplants

S5 · University of Minnesota Extension
Growing strawberries in the home garden

S6 · UC Master Gardeners, Monterey & Santa Cruz
Growing Strawberries in the Home Garden (February 2019)

S7 · UC Marin Master Gardeners
Strawberry grow sheet

S8 · Purdue University
Planting Bare-root Strawberry Plants

S9 · Oregon State Extension
Growing strawberries in your home garden

S10 · University of Minnesota Extension
Strawberry nutrient management

S11 · UC IPM
Watering Strawberries

S12 · UC IPM
Botrytis Fruit Rot

S13 · UC IPM
Freezing and Frost

S14 · UC ANR Backyard Gardener
Planting Bare Root Strawberries

S15 · University of Minnesota Extension
Day-neutral strawberries

S16 · UC IPM
Snails and Slugs

S17 · UC IPM
Powdery Mildew on Fruits and Berries

S18 · UC IPM
Low Temperature Injury to Strawberries

S19 · UC Master Food Preservers, Orange County
Strawberries

S20 · U.S. Food and Drug Administration
Selecting and Serving Produce Safely

S21 · UC Master Gardeners, Santa Clara County
Drainage in Containers

S22 · UC Master Gardeners, Contra Costa
Beat the Heat with Shade Cloth

Out-of-state extension sources support plant handling and cultivation; their seasonal calendars are not used for Santa Cruz. Current UC IPM cultivar ratings take precedence over broad disease labels in older class notes.

Keep growing with Ambitious Harvest

Free guides and worksheets: ambitiousharvest.com/your-garden-toolkit
Local planting tool: ambitiousharvest.com/planting-calendar
More growing guides: ambitiousharvest.com/learn

My strawberry planting record

Write down the starting conditions now. Add harvest notes as the season unfolds.

Date planted _____ **Bed or container** _____

Variety / type _____ **Number of plants** _____

Second variety / type _____ **Number of plants** _____

Nursery / stock type _____ **Hours of direct sun** _____

Previous crop here _____ **Spacing used** _____

Soil / mix and amendments _____ **Mulch used** _____

My bed or container map

Choose a scale and write it here. Mark each plant, labels, irrigation and an arrow for north. For a 4 by 4 foot bed, each square can represent 6 inches.

Each square represents _____



Grid is 16 by 8 squares. At 6 inches per square it represents 8 by 4 feet; use the left half for a 4 by 4 foot bed.

First new leaves _____ **First flowers** _____

Flowers removed / dates _____ **First ripe berry** _____

Feeding / date / product _____ **Harvest amount / favorite variety** _____

What I would change / next planting plan _____