Prick Out a Seedling into Its First Pot

A Transplant Sequence with Root Handling Diagram



Photo: young lettuce in cells, Forest & Kim Starr, CC BY 3.0. Context only; the root-handling diagram illustrates the method, not this photograph.

Give a small seedling its own growing space without pulling on its stem or leaving its roots exposed while you prepare a pot. This guide is for suitable seedlings raised together in a seed tray, not for dividing mature plants or planting outdoors.

The central move: loosen and support the roots from below, steady a leaf only if needed, and lower the seedling into a prepared hole. Do not use its stem as a handle.

Read the crop instructions first. Some plants are better sown directly or moved as an intact plug. A first pot is a growing-on container, not necessarily the plant's final home.

Steadleaf Press / GROW / G04 Seeds Cuttings and Propagation

Decide whether this seedling is ready

Pricking out means separating a young seedling from a shared sowing container and replanting it. Potting on usually moves an established plant with its root ball intact. Thinning simply removes excess plants; it does not promise that each removed plant can be saved. [1,2]

Check the plant and the method

Checkpoint	Proceed or pause
Crop tolerates this handling	Follow its packet or crop guide. Do not routinely prick out carrots or parsnips; their developing taproots are easily disturbed. [3]
Seedling is large enough to handle	First true leaves are a common cue, but crop guidance matters. For lettuce, RHS specifies a few leaves and enough strength to handle. Seed leaves are not true leaves. [1,4]
Stem base and leaves look healthy	Choose a sturdy plant. A narrowed, water-soaked or collapsing stem needs disease assessment, not a bigger pot as a cure. [5]
Roots will separate gently	Work before crowding becomes a dense mat. If separating would tear the neighboring roots, stop rather than pulling harder.

A seedling already growing alone in a cell may need its intact plug moved later, not its roots picked apart now. Extra seedlings tightly sharing a cell can be snipped out if protecting one keeper is the priority. [2]

This is not an outdoor-readiness test. A successful move into a first pot does not mean the seedling is hardened off or frost tolerant.

Prepare the destination first

Gather a clean pot with drainage holes, fresh seedling-appropriate potting mix, a small spoon or plant label, a tray, water and a label. A blunt dibber can make the planting hole. Do not reach for a sharp blade merely to separate tiny roots. [1,2]

Choose a pot that holds the roots without bending them and gives room to grow. Do not use an oversized wet reservoir of mix or force a long root into a shallow cell. Crop-specific advice and the actual root system are more useful than one pot diameter for every seedling.

1. Moisten the destination mix evenly. It should be damp and loose, not dusty, dripping or packed hard. Fill the pot, leaving enough space below the rim for watering.

2. Make a central hole wide and deep enough for the roots before lifting the seedling. Have the label ready with crop, variety and date.

3. Water the original tray beforehand if needed, then let it drain. You want roots and attached mix moist, not a slurry. Arrange the pots next to the tray to shorten transfer time. [6]

A useful dry run

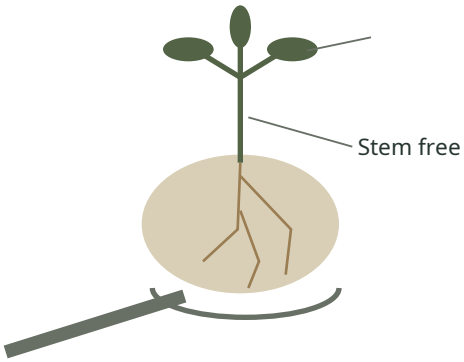
Without lifting a plant, check where your supporting tool will enter and where the destination pot will sit. Leave clear space for both hands. Work with one seedling at a time so exposed roots are not waiting in a pile.

Use clean tools and containers. Follow the product label if disinfecting reused equipment; never mix cleaning chemicals. Fresh, well-drained mix and clean equipment help reduce seedling disease risk. [5]

Support the roots from below

1 Support from below

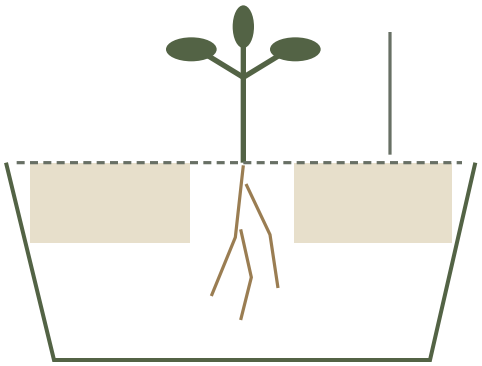
Lightly steady a leaf if needed



Spoon carries roots and attached mix

2 Lower into a roomy hole

Old level meets new mix surface



Roots point down without folding up

Diagram description: Left panel: a spoon supports a small mass of roots and attached mix from below; the stem is free, and a leaf is the only place to steady the plant lightly. Right panel: roots enter a roomy prepared hole without folding upward; the old mix level aligns with the new mix surface. These are schematic handling principles, not a scale drawing or a crop identification picture.

Lift rather than tug

Insert the spoon or label into the mix beside the seedling, far enough away not to spear its stem base. Work under the roots and lift a small amount of surrounding mix. If several seedlings come up together, let the loose mix separate gently while supporting them. Do not shake or wash roots clean. [1,2]

Keep as much root and attached mix as practical. If you need to guide the plant from above, lightly steady a leaf; the tool carries the weight. Do not dangle the seedling from a pinched stem, pull on the leaf to free stuck roots, or squeeze the growing tip. [2,6]

If the root system will not release with gentle loosening, put it back and reassess. Sacrificing an extra seedling may be safer than damaging every keeper in a tangled group. Do not trim healthy roots just to fit the pot.

Lower settle and water

1. Move the supported seedling straight to the prepared pot. Keep the roots shaded and moist during the brief transfer; do not leave them on a dry bench.

2. Lower the roots into the hole in their natural direction. If they curl upward or bunch at the bottom, lift with support and enlarge the hole or choose a deeper pot. Do not push the plant down by its stem.

3. Set the seedling at its previous growing depth unless reliable guidance for that crop specifically says otherwise. Keep the growing point and leaves above the mix. NC State uses the previous depth as its general seedling transplant rule. [1]

4. Bring mix around the roots and firm it gently enough to remove large gaps. Do not tamp the surface hard or press against the delicate stem.

5. Water gently to settle the mix, then allow drainage. If the plant sinks or roots become exposed, carefully correct the level without burying the crown. Label the pot. [1,6]

Do not generalize the tomato exception

Some tomato guidance allows deeper planting of leggy stems. That does not make burying the stem a universal cure for stretched seedlings. Check the exact crop and correct its growing conditions; do not bury lettuce's growing point or another plant's crown to imitate tomatoes. [7]

The root-handling diagram shows the general same-depth method, not a special deep-planting treatment. An intact plug is placed without deliberately breaking it apart; a loosely rooted seedling needs support during the move.

Help it resume growth

Return the pot to suitable growing conditions, out of direct heat and harsh sun while it settles. NC State recommends temporary shade or fluorescent lighting for newly transplanted seedlings. Do not keep them in darkness or suddenly expose indoor plants to outdoor wind and sun. [1,2]

Check rather than automatically water again

What you see	A useful response
Plant stays upright and mix drains	Keep ordinary crop-appropriate care. Record the next check.
Leaves wilt but mix is wet	Do not add water just because the leaves droop. Check drainage, heat and possible handling damage.
Mix is drying through the root zone	Water gently as needed, then drain. A damp-looking surface alone does not prove that the roots have moisture. [2]
Stem base narrows or collapses	Stop treating the problem as routine transplant stress. Seek disease identification and isolate affected material from healthy seedlings. [5]

Look again later the same day and during your normal daily inspection. New growth is a useful sign of establishment, but recovery time varies. Do not pull the seedling up to see whether roots have grown; that repeats the disturbance.

Do not add strong fertilizer as a rescue treatment. Check whether the new mix already contains nutrients and follow the crop and product directions. Excess fertilizer salts can contribute to seedling problems. [5]

When it outgrows this pot, assess potting on. Moving outdoors requires a separate hardening-off process and suitable weather; this guide does not set that date.

My first pot record

Crop and variety _____ Date _____

Original tray _____ New pot _____

Decision to record	My notes
Crop guidance and readiness cue	_____ _____
Root room and planting depth	_____ _____
What happened during lifting	_____ _____
Watering drainage and placement	_____ _____
Later check and next action	_____ _____

Before lifting: pot filled ___ hole prepared ___ label ready ___ tool clean ___

During moving: roots supported ___ stem untouched ___ roots not folded ___

After settling: depth checked ___ gently watered ___ excess drained ___

If the plant wilts I will check _____

_____

If roots resist separation I will _____

_____

Sources and photo credit

Primary guidance checked 2 November 2026. The illustrated sequence and record are original Steadleaf teaching aids. Use the crop's instructions where timing, pot size or planting depth differs.

1. NC State Propagation. Seedling separation, previous planting depth and aftercare.

2. University of Minnesota Starting seeds indoors. Support roots, avoid stem handling, drainage and cell-grown plants.

3. Iowa State Growing carrots and parsnips. Direct-sown taproot crops are not routine pricking-out candidates.

4. RHS Growing lettuce. Move seedlings once sufficiently developed and robust to handle.

5. University of Minnesota Prevent seedling damping off. Symptoms, cleanliness, drainage and excess salts.

6. RHS Prick out seedlings into modules. Prepare materials, water beforehand and handle leaves rather than stems.

7. RHS Growing tomatoes. Crop-specific deeper planting exception, not a general rule.

Photo: Forest & Kim Starr, young lettuce, via NC State Plant Toolbox, CC BY 3.0. Full frame proportionally resized and JPEG encoded. No endorsement implied and no additional restrictions on the licensed photograph.

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