

How to Germinate a Live Oak Acorn

(adapted from SF Gate 2017) by Randy Cohen



Collect Live Oak acorns

- Collect directly from a tree when they are brown and a light tug/twist allows them to come out of the cap (covering the rounded end).
- Avoid collecting acorns on the ground as they are likely damaged or dried out.
- Discard any that have holes, are hollow, are discolored/sticky on the round end (moldy) or have cracks.
- Store in an open bag in the refrigerator until you're ready to germinate them. **(Do not seal the bag as it may cause the acorns to get moldy.)**

Germination of the acorns

- Place the acorns in a container and cover with water.
- Discard any acorns that float to the surface or have holes since they are probably not viable.
- Soak the acorns overnight, then drain.
- Soak the acorns for five minutes in a solution of 1 tablespoon bleach mixed with 1 1/4 cups of water.
- Rinse with clean water and drain.
- Place the acorns inside a 1-gallon plastic bag filled with an equal volume of perlite or vermiculite.
- Store the bag in the refrigerator.
- Check the acorns for signs of germination weekly.

Planting into containers

- Plant the germinated live oak acorns into individual containers filled with a mix of 6 parts potting soil and 1 part sand once their radicle, or immature root, grows to at least 1/4 inch in length but not too long to handle safely.
 - **The radicle is very fragile!**
 - Make a hole wide and deeper than the newly emerged root in the center of the container, making an indentation for the bottom part of the acorn to sit in.
 - Hold the acorn above the hole with the root pointing down and slide into the hole and set the acorn in the indentation.
 - Carefully seal the root hole by gently pushing soil inward moving the soil from between the hole and side of the container towards the hole.
 - Water.
- Place the containers outdoors in a mostly shady area.
- Water whenever the soil feels mostly dry in the top 2 inches.
- Withhold water during wet weather.

Preparing to transplant

- Transplant the live oak seedlings into a permanent bed once they produce at least two sets of mature leaves and the weather conditions allow.
- Avoid disruption of the tap root.
 - Dig a hole as deep as the bottom of the container to the crown of the oak tree and a little wider than the container.
 - If possible, dig down using a narrow trowel or auger further than the length of the container, mix compost in this small hole under where the tree will be to facilitate growth of the tap root.
 - Water the tap root hole and allow the water to absorb.
 - Otherwise, water the prepared hole if the ground is dry.

Plant the tree

- If using a plant bag, make the hole and plant the entire bag in the ground with minimum handling.
- Otherwise ensure the tree is transplanted with minimum trauma.
- Water as needed.
- Spread a 2-3-inch layer of mulch around each seedling to protect the roots leaving an open space around the stem for the crown (in a 'donut' shape).
- Allow the ground to dry to a depth of 2 inches before additional watering.
- Always water deeply when watering is needed.

About Randy Cohen

Randy Cohen, a longtime SMVOS volunteer, was presented with The Santa Maria Natural History Museum's Conservation Award for his work planting hundreds of native oak trees on local open space land. Next time you're out enjoying the local trails, be on the lookout for green flags. Those flags mark the locations of oaks recently planted by Randy Cohen. We hope you enjoy Randy's recipe for propagating oaks from acorns.

