

## Oklahoma 4-H



OSU EXTENSION  
4-H YOUTH DEVELOPMENT

# Did you know you can grow your own tree...from a pecan?

## From a Nut to a Tree

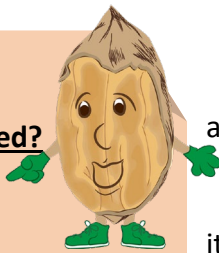
### Grow Your Own Pecan Seedlings

In winter, pecans that have been buried by squirrels get cold and wet from rain and snow. This cold, wet period before sprouting is called “stratification” and is necessary for pecans to start growing into trees. When spring arrives and it starts getting warmer, pecans start to sprout and grow strong. To grow your own pecan tree, buy or collect pecans in November. Make sure the shell is not cracked and there are no holes from insects. Then:

- Soak pecans in water for 24 hours (*This mimics rain and snow.*).
- Wet enough vermiculite to fill half of the zip lock bag and allow water to drain overnight (*This will be the ground that the pecans get buried in.*).
- Put the pecans and the moist vermiculite in a zip lock bag, close it, and write the date on the bag (*This mimics a squirrel burying a pecan in winter.*).
- Store in a refrigerator crisper drawer for at least 2 months (*This is the winter season!*).

### What do you need?

- Pecans
- Vermiculite
- ½ to 1 gallon plastic pitcher
- 1 gallon zip lock bag
- Refrigerator crisper drawer
- Aquarium pump and air diffuser
- Aquarium heater
- Aquarium thermometer
- Tree pots – open bottom 4x4x10-14” (or milk cartons or milk jugs)
- Soil-less potting media for nursery plants



After the last frost, (around April 15 in Stillwater, Oklahoma), pecans can be planted outside. Spring is here! Time to start warming up! To mimic spring,

- Fill a plastic pitcher with water and use an aquarium heater, pump and air diffuser to set temperature to 90 degrees. A floating aquarium thermometer will help with the process. Check the temperature several times for one day to make sure that water will not be too hot and boil the pecans (*Cooked pecans won't grow!*).
- Remove the pecans from the refrigerator and rinse off the vermiculite.
- Throw away any cracked, moldy, or open nuts (By “pre-germinating”, you can see which pecans are still good to plant, and you won't waste time and materials planting bad pecans).
- Place the pecans in the pitcher with the heater and air diffuser and keep at 90 degrees. You may have to adjust the temperature after adding the pecans.



*One pitcher with fresh water and a second pitcher shows water after one day. Water should be changed daily.*

- Change the water daily. To keep seeds from sprouting in the winter, substances called growth inhibitors are in the shell. These substances will come out of the shell and get into the water, preventing seeds from growing. To remove the growth inhibitors and help the seeds sprout (germinate), change the water every day and throw away any slimy or rotten pecans.



*Radicle above is at the correct stage for planting.*

After about 4-5 days, you should see a tiny root (radicle) starting to emerge from the pecan; that means it is time to plant! If the radicle is allowed to grow too long, it becomes very fragile and may break during planting, so don't wait too long to plant! Some nuts will germinate quicker, but most will within 1 week.

- A support system or rack can be designed for the type and number of pots used. It should be raised off the ground, with an open bottom (hardware cloth or expanded metal), to allow for root pruning. The tap root will grow to the bottom of the pot and then air prune. The tree will then grow more lateral roots.
- A ½ gallon waxed milk carton with an open bottom works well for a pot. Specialized tree pots can be purchased, but usually only in large quantities. A ½ gallon plastic milk jug would work with both ends removed.



#### Care and Maintenance

- Do not allow the pots to dry out. When watering make sure to apply enough water to drain through the pots each time. Trees may need watering once a day especially during the hot summer months.
- If squirrels, blue jays, raccoons, or mice are a problem, a net or cage may be needed to prevent loss of the nuts. Critters like to eat pecans and can dig up your pecan seed overnight.
- Once the pecans are up 2-3" tall, apply 1 tablespoon of Osmocote slow-release fertilizer and monthly thereafter. Fertilizer applications made too early will burn the seedlings. Fertilize until mid-July.
- Monitor for insect and disease problems frequently.

Hand weed as needed. Weed competition will reduce tree growth substantially.

- A commercial soil-less potting media advertised as a nursery mix has good water holding capacity as well as good aeration. Field soil is not recommended because it is too poorly aerated for good growth in containers.
- Plant the nuts about 1 to 1- 1/2 inches deep, on their side. Cover with media and water in well.



Punny Joke: What do you get when you take the circumference of a pecan and divide it by the diameter?

For information on pecan management visit: <http://okpecans.okstate.edu>

## Transplant

- Pecan roots in a container are not cold hardy and must be planted before the first freeze. Late September to early October plantings are ideal and usually perform better than winter and spring plantings.
- Consult Fact Sheet HLA-6247 Establishing a Pecan Orchard for help in establishment decisions.
- Planting can be done without changes to the root system unless some roots have curled around the bottom of the container. In that case, cut off the curled portion of the taproot.

Growing container trees is a time-consuming endeavor. Overlooking an insect problem, a squirrel digging up nuts, or skipping a watering may result in tree loss. On the other hand, growing your own seedlings can be a fun way to learn about growing trees.



## Word definitions

- **Stratification** – seed treatment to mimic cold moist winter conditions that some seeds need to break dormancy and germinate in spring
- **Vermiculite** - naturally occurring mineral that is mined and processed into a puffy, lightweight granule used to improve aeration and drainage
- **Germinate** – process when seedlings sprout from seed or begins to grow
- **Radicle** – first part of plant to emerge from seed and develops into the main tap root
- **Tap root** – large main root that grows straight down into the soil, other roots sprout from tap root, used for stability
- **Lateral roots** – smaller branching roots that grow from tap root used by the plant to take up water and nutrients
- **Air prune** – roots exposed to air dry up or stop growing causing other roots to sprout
- **Growing Media** – the material that the plants grow in. Soil-less mixes are lightweight, drain well, hold water and nutrients, and free of pests. They are typically made up of bark, peat moss, perlite, vermiculite and small amounts of lime and fertilizer.



Punny Joke Answer:  
Pecan Pie

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# Nut to a Tree

E T O C O M S O E G L G M C Z  
 P E R L I T E A T R M E G Q S  
 N O I T A C I F I T A R T S I  
 E V F N T F E L L L S G J A K  
 B R V M B F Y J U A T I L V X  
 S O U Z V L S L C R T Z L I T  
 S Q F T N U T R I E N T S O E  
 O M U P L I E B M T P V O T Z  
 I E G I I U L X R A J R A E M  
 L A L Q R U C U E L P N U O E  
 L F D C E R Q I V A I A P N V  
 E I F J I S E J T M X Y E J E  
 S G A B G D J L R R T J C N I  
 S Y Q O N Z A E S I O V A S L  
 S Z D K U W G R V P V H N F N

**Find the words in the puzzle!**

BLUE JAYS  
 GERMINATE  
 HORTICULTURE  
 LATERAL  
 NUTRIENTS  
 OSMOCOTE  
 PECAN  
 PERLITE  
 PRUNE  
 RADICLE  
 SOILLESS  
 SQUIRRELS  
 STRATIFICATION  
 TAPROOT  
 VERMICULITE



## Oven Caramel Corn Recipe

8 or 9 quarts popped corn  
 2 cups brown sugar  
 1 cup margarine  
 1 teaspoon salt  
 ½ cup corn syrup  
 1 teaspoon vanilla  
 ½ teaspoon soda  
 2 cups pecans, coarsely chopped

### Directions:

1. Preheat oven to 250°F.
2. Boil all ingredients except corn, soda and pecans for 5 minutes; mixing well and stirring often.
3. Remove from heat and add soda; stir in quickly.
4. Pour over popcorn and pecans and mix well.
5. Put on 2 large baking sheets and bake 1 hour: Stirring every 20 minutes.



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