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# Why Seeds Need a Little Space

Have you ever looked at a giant oak tree or a bright yellow dandelion and wondered why their seeds don't just drop and grow right underneath them? Even though these "parent" plants provide the seeds with everything they need to start life, seeds actually need to travel far away to grow up big and strong. This process of moving to a new home is called seed dispersal.

If seeds stayed in one place, the forest would look very different! Here is a deeper look at why seeds are always on the move:

Just like you need food and space to grow, plants need nutrients from the soil, water, and sunlight. If a hundred little seeds all tried to grow right under the branches of their parent tree, they would have to compete for the same things. The big parent tree is like a giant umbrella; its thick leaves block the sunlight, and its massive roots soak up all the rainwater before the tiny seeds can get a sip. By moving away, a baby seed finds its own "room" where it can have all the sun and water it needs to thrive.



Acorns trying to compete with parent tree for sun and water.

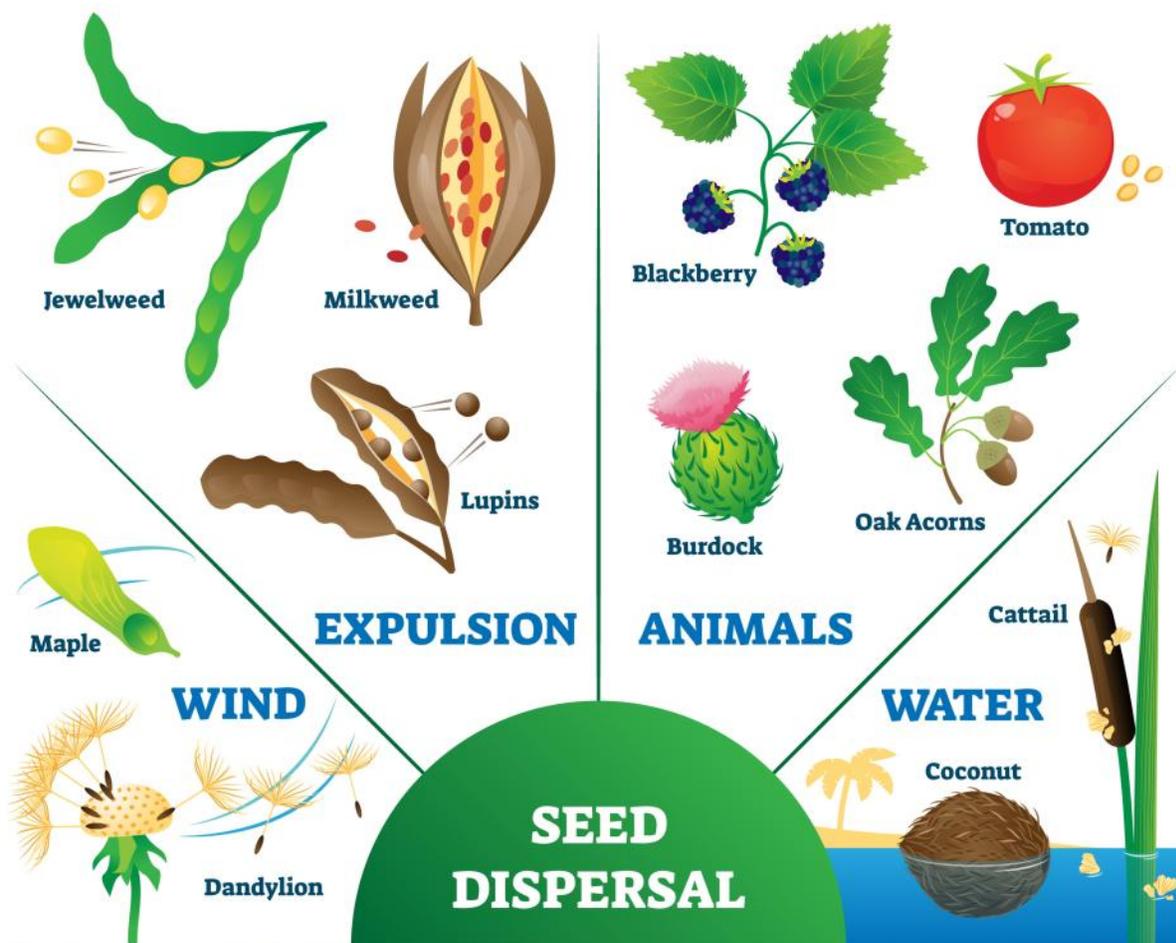
In nature, certain bugs, beetles, and diseases love to hang out on specific types of plants. If a mother plant has a lot of "family pests" living on her leaves, those bugs will be waiting to snack on any baby plants that sprout nearby. Scientists sometimes call a big group of the same plant an "all-you-can-eat buffet" for insects. When seeds spread out and land in different areas, they are much harder for those hungry pests to find.

Imagine if every single apple tree in the world grew in just one small field. If a fire or a big flood hit that one field, every apple tree would be gone forever! By traveling to new places—across meadows, over hills, or even to different islands—plants make sure their "family line" continues. Even if something bad happens in one spot, the seeds that traveled elsewhere will keep the species alive.

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Since seeds don't have legs or wings of their own, they have to be creative hitchhikers.

- The Wind: Some seeds are light and feathery, like dandelions or maple "helicopters," allowing them to fly for miles.
- Animals: Some seeds have tiny hooks (called burs) that stick to animal fur. Other plants hide their seeds inside delicious, colorful fruit. When an animal eats the fruit, the seed travels inside the animal's stomach and is "deposited" in a new spot later on.
- Water: Some seeds, like the coconut, are built like little boats. They have tough, waterproof shells that allow them to float across oceans until they reach a sandy beach.
- Explosion: Some seed pods, like those on pea plants or touch-me-nots, actually dry up and "pop," shooting the seeds away like tiny cannons!





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1. What is the main reason seeds need to move away from the parent plant?

- A) Because they want to explore the world.
- B) To avoid competing for sunlight, water, and nutrients.
- C) Because the parent plant pushes them away.
- D) To find a place with more shade and less water.

2. Why does the author compare a group of plants to an "all-you-can-eat buffet"?

- A) To show that plants provide food for humans.
- B) To explain how many different types of soil there are.
- C) To describe how easy it is for pests to find and eat plants that are all together.
- D) To show that seeds are delicious to animals.

3. According to the text, how does the parent tree act like an "umbrella"?

- A) It protects the seeds from getting too wet during a storm.
- B) It keeps the seeds warm during the winter.
- C) It provides a handle for the seeds to hold onto.
- D) It blocks the sunlight that the baby seeds need to grow.

4. If a seed has tiny hooks or "burs," how is it most likely dispersed?

- A) By sticking to the fur of an animal.
- B) By flying through the air on a windy day.
- C) By floating down a river.
- D) By exploding out of a pod.

5. How does seed dispersal help a plant species survive a natural disaster like a fire?

- A) The seeds can grow faster after a fire.
- B) Seeds that traveled to other areas won't be hurt by the fire in the first area.
- C) The seeds are fireproof and won't burn.
- D) The wind from the fire helps the seeds fly away.

6. Which method of dispersal would a heavy seed with a waterproof shell most likely use?

- A) Wind
- B) Animals
- C) Water
- D) Explosion