



Giving plants enough space

If plants are crowded together they will not be able to get enough sunlight, or enough nourishment and water from the soil.



Seeds grow where they fall or where they are planted. They cannot move about like animals. So if they grow too close together, they will not have enough space to grow properly.

Tall and spindly

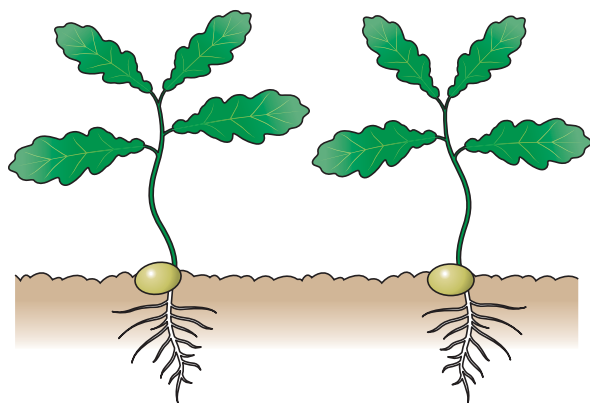
A plant needs to grow leaves or it will not be able to soak up the light it needs to make food. So a plant that is growing in crowded conditions will have to spend energy trying to grow upwards to reach above its neighbours.

The chances are it will not have enough energy left to grow large leaves

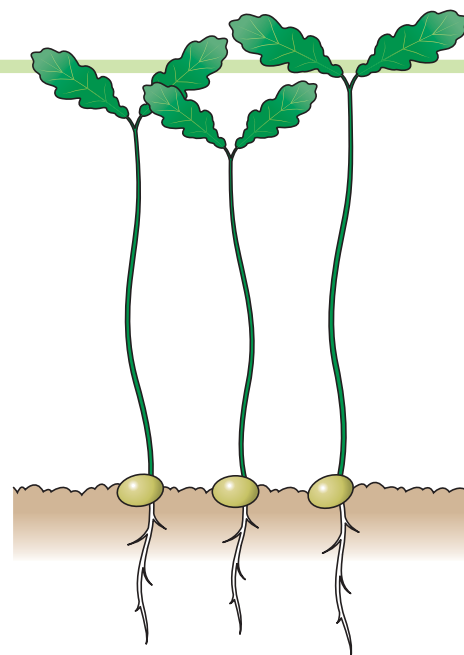
▲ (Picture 1) Here are some trees growing together. They have been planted close together so they will grow tall and straight and have few branches. Trees are grown like this to make their trunks easier to use, but we would not grow pot plants like this because they would seem too spindly.

after spending so much effort growing a tall stem (Picture 1).

A plant that has more room to grow will start to grow many leaves before it grows a tall stem. In this way the leaves can make enough food to grow a sturdy stem, many branches and even more leaves (Picture 2).



◀▶ (Picture 2) The plants on the left are growing with lots of space all around. The plants on the right are growing tightly packed together. All of the plants are the same age. Notice that the plants on the left have bigger roots than the ones on the right.

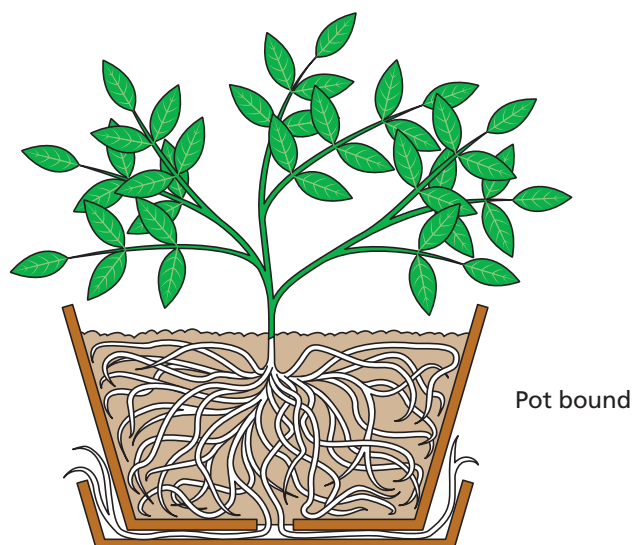
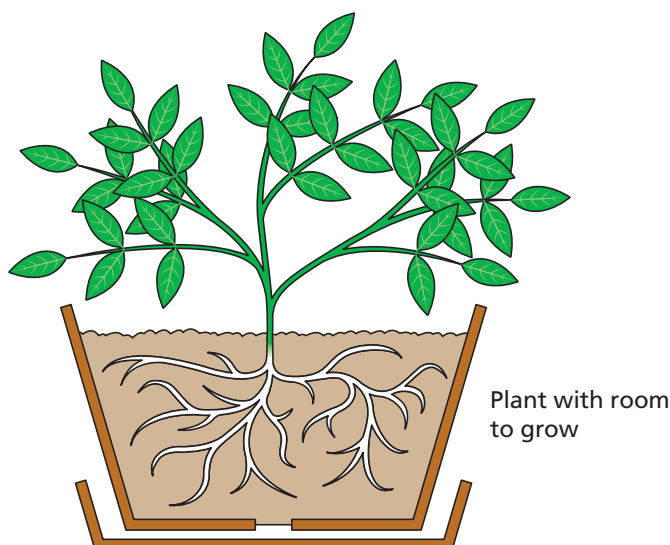


Pot bound

If you grow a plant in a pot, it can spread its leaves, but it cannot spread its roots. Plants like this grow up well until the pot is almost choked with roots. When roots curl around the outside of the soil, the plant is called **POT BOUND** (Picture 3). Until a plant becomes pot bound it will grow well, but as soon as it becomes

pot-bound it will grow only very slowly. This is because the plant will have taken all of the nourishment it can from the soil in the pot and the roots will have no chance to spread out and look for more. A plant like this will need to be repotted.

Bonsai trees are kept small by having their roots clipped regularly.



▲ (Picture 3) When a plant is pot bound, the roots grow round and round in the pot. Sometimes they come out of the drainage hole in the bottom of the pot and even run across the surface of the soil.

Summary

- Plants need enough space to grow good leaves.
- Plants need to have enough space to grow as much as they need.