

## **SOWING SEED**

In a natural environment, plants propagate themselves, but this is a hard job because most of the soil is covered in other plants and the seed has to find a gap. Seeds have the best chance once they can be under the soil. Some soil may be too dry or wet for the seeds. Also, there are animals that will eat seeds or seedlings. Agriculture massively improves a plant's chances of growing.



#### **Types of Seed**

There are many types of plant, from giant Redwood trees to grass, all that start from a seed. The vegetables, fruit, and herbs that we grow start from seeds. They fall into three categories:

- 1. Annual: Lives for one season. New seed must be sown every year.
- 2. Biennial: Grows for a year and then flowers and sets seed in a second season, then dies.
- 3. Perennial: Establishes itself and lives for many years in the same place.

Plants have many different ways to get their seed spread to fertile soils that may be far away. Some plants make lots of seeds, knowing most will not find a good home, others try to give each seed the best chance.

- The wind is vital to spread seeds, as are insects who pollinate flowers to allow seeds to form.
- The insects do this by moving from plant to plant, taking the pollen from one to the next on their bodies.



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- Some seeds work in harmony with animals and birds, making their fruit delicious to eat. The creature then goes about its life, once the seed has passed through its body it is excreted. This will be some distance away from the parent plant, neatly wrapped in a bundle of fertiliser.
- Plants can also spread by roots or rhizomes like bamboo, grass or like potatoes. Some form clumps of bulbs. Some, like willow, can spread when a branch breaks off and begins to grow; farmers copy this through the technique of cuttings.

## **Sowing: Field or Under Cover**

By planting seeds into the soil, growers hide them from birds, keep them damp, and protect them from frost and wind. In the past, farmers used sticks by dragging them along the soil to make a row. Seeds could be planted, watered, and then back-filled. This also allowed for housing or flame weeding between the rows before the seeds came up.



Mechanical planters are always being designed and improved. Hand-operated or tractor attachments allow for a hole or row to be made and the seed to be planted at the correct spacing, as well as for the seed to be covered after.

Starting plants in a greenhouse under plastic eliminates some problems and allows for a stronger germination rate, and bigger and healthier seedlings. The plants can then go out into the fields when conditions are right. Hardening them off is recommended: leave the trays of plants out in the day and put them in at night, for a couple of days, this allows plants to acclimatise. The permaculture approach to planting seeds is to have a

diversity of plants growing together, with no bare soil.

## **Growing Conditions for Different Seeds**

Plants are just like people: they vary in what they like and need to survive.

- Some seeds like to sit on top of the soil.
- Some seeds need to be buried into the soil.
- Some seeds need to have a period of cold before they are sown.
- Some seeds will grow better if they are soaked in water before sowing.
- Some seeds are very fussy and must have the perfect conditions.
- Some seeds will grow every time, even if the conditions are not perfect for them.

Seeds share a need to be planted in compost/soil that is not too rich. Some need sand or grit mixed in with the compost. Small seeds are usually planted in seed trays or into trays of mini pots. Care should be taken when watering small seeds as

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they are near the surface, they are light and the compost is light. Bigger seeds can go into bigger pots, as they can cope with rougher composts. They shouldn't be planted deeper into the "soil."

#### **Thinning Out**

Not all seeds germinate: bad seeds will not grow, insects or disease may eat these seeds or the young plant. Also many seeds are so small, that they are hard to plant accurately. For these reasons, farmers sometimes plant extra seed in the rows.



When the seedlings are big enough, the grower then thins out the rows by removing plants where they are too closely spaced. Sometimes the thinned out plants can be eaten, as in the case of salad crops. Sometimes the thinned out plants can be replanted in a separate space, where they will happily grow on. Carrots are happy to do this.

## **Potting On**

When growing small seed in trays in seed beds, growers will plant them quite close. Seed trays are small and seed compost costs money. (For example, it is common for growers to plant tomatoes into seed trays. When they have germinated and they begin to get their second set of leaves it is time to pot them on.) The strongest seedlings are pricked out of the seed tray: a pencil or other pointed tool is used to lift the seedling from under the roots, it can then be lifted, by the root ball or a leaf, over to a big pot. The seedling is then potted on into the big pot, watered in, and placed back under cover where it can grow on till it is time to be planted out.



### **Related Videos & Websites**

- ⇒ Irish Seed Savers ←
- ⇒ Grow Plants from Seeds ←
- ⇒ Sowing Vegetable Seeds ←
  - ⇒ Seed: An Untold Story ←
    - ⇒ Blooming Flower ←
  - ⇒ <u>Dandelion Time Lapse</u> ←

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