



## Unit R2121: Sowing seeds and vegetative propagation techniques

Learning Outcome 2 (1): Be able to sow seed to a consistent and uniform standard in containers and carry out appropriate aftercare to ensure successful germination

### 2.1 Sow seed and label appropriately

- (a) fine seed mixed with 1mm horticultural sand left uncovered
- (b) medium seed broadcast
- (c) seeds sown in pairs in pots.

### 2.2 Cover seeds appropriately

- Differentiate between seed that needs to be covered and seed that must not be covered
- Select appropriate materials for covering seed
- Cover seed to appropriate depth

#### Fine seed

When you sow seeds 'broadcast' on a seed tray or in a pot, your main aims are

- to produce the number of plants you require in a container that fits efficiently into your propagation space ( you could use a full seed tray to sow ten lettuce seeds, but it wouldn't be very efficient)
- to space the seeds out to avoid crowded patches which may be prone to 'damping off' .

When the seed is almost too fine to see against compost, this is going to be virtually impossible.

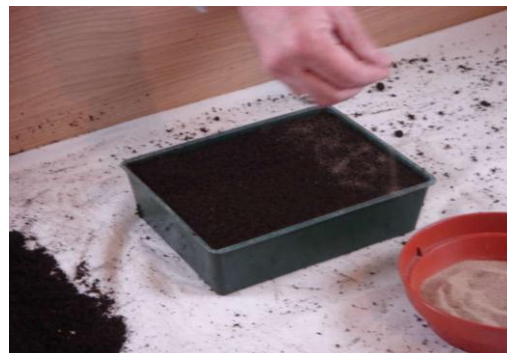
**So, you mix the fine seed** ( e.g. *Begonia semperflorens*, which is dust-like and extremely expensive) **with horticultural silver sand**. This means, of course, that not only can you see where you have scattered the mixture, but that quite a few grains of sand are scattered for every seed .

When you sow seed mixed with silver sand – think: how thickly you need to scatter it, depends on how much seed is mixed with the sand. If you've added 20 parts of sand for one seed, then **with roughly every 20 grains you may be sowing a seed**. If you add 40 parts, and spread the sand equally, then you are sowing the seed more thinly.

**Don't overdo the sand** – once you've mixed it with seed, if you scatter the sand evenly and have some left over, you are wasting precious seeds; you should finish up the mixture even if you have to sow more thickly.

Start with a really level surface on your seed tray.

Add silver sand to the seed in a container, mix well, and then sow pinches of seed carefully across the seed tray in one direction, then turn the tray round and sow the rest of the seed at right angles.



It takes a lot of practice to get a relatively even result.

- **You do not cover fine seed** – many of the smallest seeds need light to germinate, but also there is so little nutrition stored within the seed that if it has to grow through a layer of compost it will exhaust its reserves before it can break through to the light to start manufacturing food.
- If you water the seed from above, the seeds and sand are so small they will easily be washed into clumps. **Water fine seeds by placing the seed tray in a shallow container of water** so that the compost can absorb water from below.

## Medium seed

To make it easy for yourself to sow seeds evenly, you produce a level surface on your seed tray. Then you use any method that suits you to scatter seeds across the surface:

- some people take pinches of seed in their fingers to scatter;
- others put the seed into the palm of their hand and tap the side of their hand to drop seeds slowly;
- others prefer to use the a folded piece of card or seed packet to form a channel, dropping seeds slowly across the surface by tapping steadily to dislodge them.

**Try different methods and find which one gives you the best control**, but remember you are supposed to be efficient here. Moving clumps with the tip of a pencil ( or by rubbing a ballpoint pen on your sleeve to produce static, and help pick up seeds) is sensible; placing each seed individually wastes far too much time!



- **Once you have sowed the seed you need to cover it** ( with compost or vermiculite) to approximately twice the seed's depth, no more.
- For your assessment you will need to show how deeply you've covered the seed, as well as how evenly you've sowed it. Only for assessment purposes, you practise covering half the tray, and the easiest way to do this is to cover half the tray with the presser board or something similar.
- **TIP: look at your seed sowing and cover the half you are less happy with.**
- **Keep the sieve moving over the tray**, don't hold it still or your covering will be patchy.







- Clean off the edge of the tray for a professional finish.

### Larger, paired seeds



Sometimes two seeds are sown together – the intention is to keep only one.



Simply take a pot which has been loosely filled with compost, and push in two seeds close together.



Use your fingers to brush compost over the seeds and firm lightly.

## Labelling containers

When sowing seeds you need to label each tray or pot with

- (1) **The seed name ( botanical name in Latin) including the cultivar if there is one**
- (2) **The date of sowing**

If you are working in a nursery with other people you may also put your name or initials on the back of the label - it helps to monitor that everyone is sowing seed efficiently, in case one person's working technique proves much more successful than the others, or some seeds fail altogether.

**Use a pencil, and write clearly along the length of a label.** The label in a seed tray is conventionally placed in the middle of the shorter side of the tray.



**Practise sowing seeds:**

**Watch the videos which relate to this outcome.**

- ‘Station sow’ a pair of seeds by pushing them into one of the pots you filled for outcome 1, to the correct depth.
- Fill seed trays evenly and then practise broadcast sowing.
- standard lettuce seed is easy to see (light coloured against compost) and cheap. As you will need to practise pricking out seedlings, leave these to germinate if you have space on a windowsill or in a propagator.
- Mustard seed (grown as green manure or for sprouting) is cheap and light but harder to sow as it rolls around. Good for practice.
- If you are discarding your practice sowings for green waste, you can use a sieve to spread a fresh top layer over your seed tray, re-firm it and practise sowing fine seed.
- Don’t really use fine seed, just use silver sand for practice.
- If you’ve used fresh potting compost and silver sand, you can mix this together after you have finished and recycle the mixture as propagating compost – it will give an open texture which is good for cuttings. *Don’t do this if you have already sown seeds in it.*

**When you have sown your seeds you may like to take some digital photographs.**

**There is an ‘assignment’ slot for this outcome as you have to record answers to two criteria.**

**Uploading photographs of your seed sowing is optional - it will not count towards your marking for the unit, but if you would like to upload pictures your tutor will post comments and feedback on them.**