

STARTING PLANTS FROM SEED

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Good plants start with new, fresh seeds. Some growers look for bargains or try to hold seeds from one year to the next, but it is not worth it. Actually, seeds are an inexpensive item in bedding plant production.

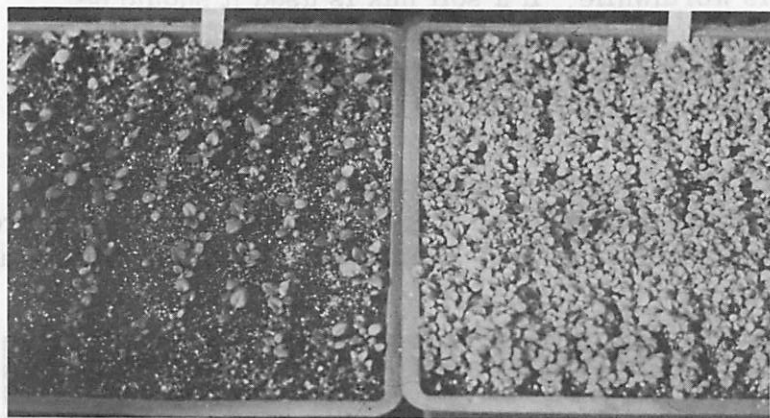


Figure 1a--Mediocre germination of old petunia seed on left, good from new on right.

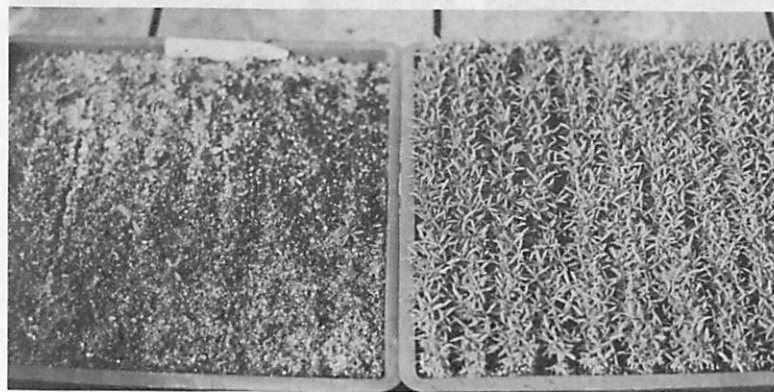


Figure 1b--Old portulaca seed failure. New seed on the right.

Sow the seeds loosely in rows. This is for two reasons. First, if damping-off should attack the seedlings it will progress down the row and stop at the end (hopefully). Second, if the seedlings cannot be transplanted on time they may not become overcrowded, tall and spindly.

Start seeds in a loose, well-drained mix. The peat-lite mixes seem to be the best. They may cost more initially but many growers feel the investment is worthwhile. If a soil mix is used it should be pasteurized (180°F for 30 minutes) and low in soluble salts. Also the flats should have drainage holes along the sides and in the bottom.

Once sown, the seeds should be kept warm for prompt germination. This applies to soil temperature, not air temperature. Maintain the soil temperature at

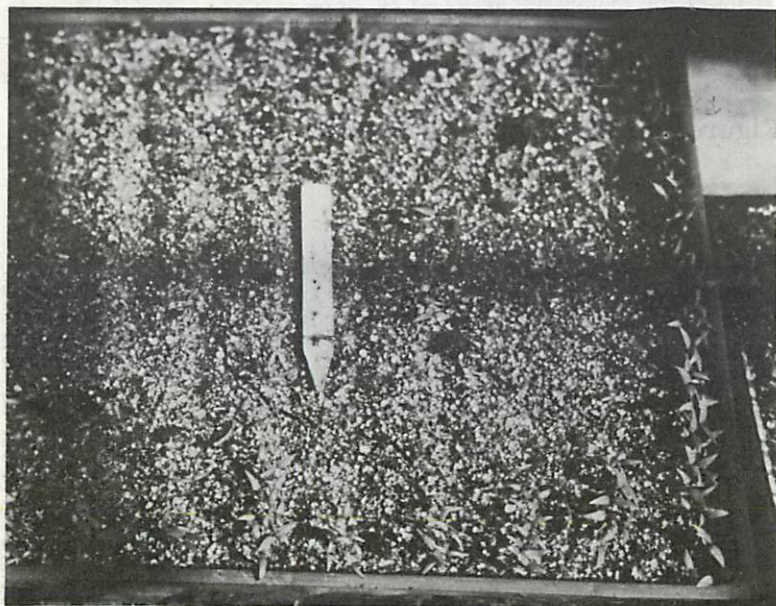


Figure 2--Poor drainage can cause poor germination. Note the seedlings that survived around the edge.

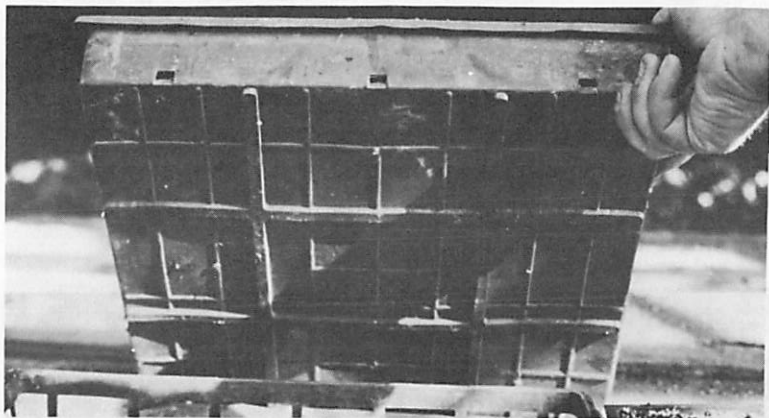


Figure 3--A plastic flat without bottom drainage should not be used for germinating seeds.

about 75^oF with the use of bottom heat. This can be done with hot water, electric cables or propagating mats. Most growers cover the seed flats with either plastic or burlap until the seedlings emerge. Do not let the seeds dry out during germination.

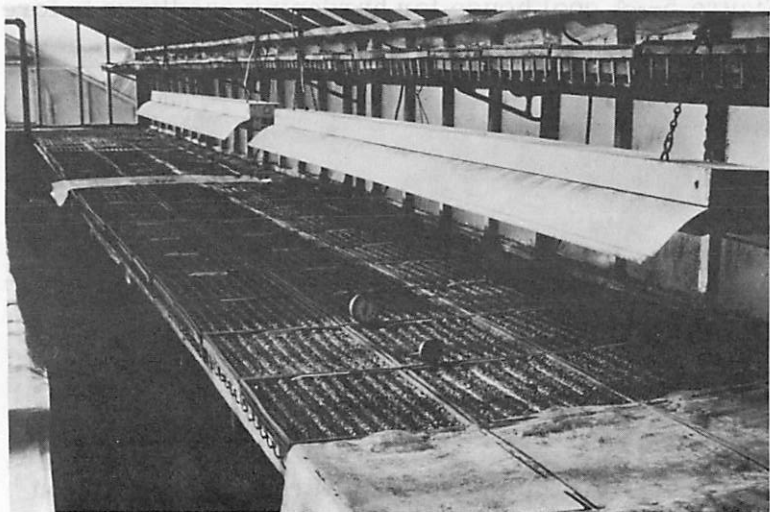


Figure 4--A germination bench with lights, thermometer and plastic covers.

Lights have been shown to stimulate the germination of some seeds. Fluorescent lamps hung about 12-15' over the flats are used by some growers.

After the seedlings are up they should be cooled off. They are usually placed in a 50°F house and allowed to dry a little. They can be kept cool and dry until transplanting.



Figure 5--A cool house for hardening seedlings before transplanting.



Figure 6--Aeration makes a difference! The flat on the right contains a heavy mix. The one on the left contains the same soil amended with pine bark.



Figure 7--Soil testing is important. Few seedlings will grow well in a soil with a pH of 4.8.