SOFI OCN 3428 - OC&C: Unit 2 Theory of Organic Cultivation Element 10

POTTING COMPOSTS - GROWING MEDIA

When you've mastered the art of composting, you can start to unravel the mysteries of the riddle. Once upon a time, the name John Innes signified the standard mixtures which gardeners made themselves to sow seeds, take cuttings and pot up their plants. Nowadays, corporate logos announce the arrival of a new batch of growbags full of chemicals, East European peat or sewage.

There are many reasons to object to what the garden centres have to offer, including the fact that they aren't very good at growing plants. If you can manufacture your own growth media, you have the essential information you need to become more self-sufficient, less dependent, more ethical, less transport, more local. Whether you want to add value or save money, the planet or even your soul, the answer lies in the riddle.

RESOURCES Try to maximise the use of ingredients which can be obtained freely from local sources. Good organic practices should include managing all the resource cycles which will make these ingredients available: making garden **compost, leafmould, loam** and creating improved, weed-free **topsoil**. Saving money by sourcing bulky ingredients yourself means you can afford the inputs which have to be bought in, such as perlite, vermiculite and concentrated fertilisers. These ingredients can be reduced or even omitted, but this will reduce the effectiveness of the product.

Powdered lime, dolomite or calcified seaweed can be added to suit the requirements of lime-lovers, such as onions and cabbages. Rockdusts can be added if a long, slow release of fertility is required. Media for acid-loving, ericaceous plants can be produced by using leafmould made out of evergreen leaves or composts that have been digested anaerobically.

SOIL Commercial products minimise or exclude the use of soil, to reduce weight, which makes them cheaper to transport, but requires the addition of extra slow release (often chemical) fertilisers. Mixes which include soil are more resilient and long-lasting. Soil acts as a buffer producing a more enduring and forgiving medium which requires less regular watering and will last longer before it needs to be replaced.

Using soil in potting media produces plants which are prepared for and adapted to the type of conditions they will encounter when they are transplanted. Loam and topsoil will have different qualities according to the nature of the mother soil from which they are formed:

. Sandy soils can be used in the finer consistency media, such as for seed-sowing.
. Clay soils are only suitable for rougher mixes for more mature plants.
. Silt or alluvial soils and any soil with a high humus content can be included in both.

TIPS

1 Mix bulky ingredients together first, then add concentrated fertilisers.
1 Add perlite or vermiculite next to check the concentrates are distributed evenly throughout the mix. Move the batch from end to end of container to mix thoroughly.
1 Rubbing the finer mixes by hand adds minute amounts of enzymes, hormones and auxins which can promote growth.
1 Most mixes can be used immediately, but those which contain volatile substances (such as raw compost and blood, fish & bone) should be left to mature and settle for several days.

RIDDLING 2 cm / one inch mesh produces rough grade material suitable for large seed or potting on media. Larger stones or twigs can be saved and used for drainage in the bottom of pots.

1cm / half inch mesh produces fine particles of a grade for fine seed mixes.

Stones that do not pass through the riddle can be saved for use as grit.

Learner Sig. ***Date*** ***Assessor Sig.***

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POTTING COMPOSTS / GROWING MEDIA

INERT / STRUCTURAL -- INGREDIENTS ----------> FERTILE / STRONG

	GRIT	SAND	PERLITE	VERMIC ULITE	LEAF MOULD FINE	LEAF MOULD ROUGH	LOAM FINE	TOP SOIL	COMPOST FINE	COMPOST ROUGH	SEA WEED MEAL	GROSAFE (B,F & B)
CUTTINGS	**20**	**20**	**30**		**30**							
SEED SMALL		**30**		**30**	**40**							
SEEDLING / PRICKING OUT			**27**		**50**		**10**		**10**		**2**	**1**
SEED MEDIUM		**18**	**30**		**40**		**10**				**2**	
SEED LARGE		**10**	**25**		**30**		**20**		**10**		**3**	**2**
POTTING ON YOUNG			**20**			**22**		**25**	**25**		**5**	**3**
POTTING ON MATURE			**10**			**20**		**30**		**30**	**5**	**5**

The table (above) sets out the proportions of ingredients in a basic range of potting composts as a ***percentage***. Each mix has distinctly different uses and properties. Making your own mix allows you to produce exactly the right medium for the intended use.

The chart progresses from those which require minimum fertility (with a structure which will encourage cuttings and small seeds to form strong root systems), to those which need added fertility (to allow established plants and seedlings to grow on strongly). The ingredients are arranged similarly, from those which are more **structural and inert** (left), to those which are more ***fertile*** (right).

Learner Sig. ***Date*** ***Assessor Sig.***