

edible roofs *planting depths*

As interest in green roofs increases – because they offer sustainable solutions to climate change amelioration and adaptation – so more people are exploring growing food on roofs. This presents a challenge to meet the needs of plants within the constraints of limited substrate (soil) depth because of load bearing. However, there is a lot of experience of container gardening – and many books – which can be adapted for rooftop allotments.

For roofs and containers, drainage is important to prevent plants from drowning. Lightweight substrate mixtures used on roofs (usually building waste mixed with composted organic waste) meet this requirement, but veg are hungry and need a high humus content to provide nutrients and absorb water. Natural soil is an amazing, complex ecosystem which needs to be nurtured to produce high yields, so we have to create mixtures which retain nutrients to maintain fertility year after year. Organic gardeners aim to feed the soil, not the plant

Our experience at RISC is that almost anything will grow on 30cm as long as it fed and watered – we have over 185 different species and varieties of useful plants, ranging from tubers through to 6m tall fruit trees. Research has shown that most of the roots which absorb nutrients and water are within the top 30-45cm of soil. Substrate depth is only one factor. Size of beds is also important and explains why our trees still thrive – they can spread sideways. We have successfully grown most of the plants not recommended for containers in the list.

This list (depth in cm) is taken from *The Edible Container Garden* by Michael Guerra (Gaia Books 2005), a highly recommended permaculture approach to container gardening. For roofs, Michael recommends a homemade mixture of 60% municipal compost, 25% lightweight filler to improve drainage (eg vermiculite, crushed brick), 15% well rotted manure. To each 4,5 litre (1 gallon) bucket of this mixture add 15gms (1½ oz) of a mixture of 1 part wood ash, 1 part seaweed meal, 2 parts organic fertiliser (eg chicken manure). This acts as a fertiliser and soil conditioner.



growing our futures
risc's edible roof garden

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	minimum depth of container in cm
veg	
aparagus	45
aubergine	20
beetroot	25
beans: French & runner	20
beans: dwarf & bush	15
broad beans	20
broccoli, calabrese & cauliflower	25
cabbage & kale	20
carrots	20
celery & celeriac	not recommended
courgettes & summer squashes	25
cucumber	20
endive & chicory	20
Florence fennel	20
garlic	15
kohlrabi	15
leeks	20
lettuce	10
okra	25
onions & shallots	15
oriental greens	10-15
dwarf parsnips	20
sweet peppers & chillies	20
peas	15
potatoes	30 (best in towers)
sweetcorn: traditional	30
sweetcorn: dwarf	20
tomatoes	20
turnips	20

perennial salads

chickweed	10
chives	10
corn salad	10
dandelion	10
daylily	20
garlic mustard	15
good King Henry	15
nasturtium	15
salad burnet	10
sorrel	15
rocket	10
land cress	10
Egyptian tree onion	15

rhubarb	30
Welsh onion	10
winter purslane	10

fruit

apple	40-60
cherry	45
dwarf citrus	20
mulberry	not recommended
figs	45
peach, apricot, nectarine	45
pear	unreliable
plum	45
quince	60
kiwi	30
grapes	45
melon	20
blackcurrant	30
red & white currant	30
gooseberry	30
blueberry	45
autumn raspberry	30
strawberry	20
blackberry, loganberry & tayberry	unreliable

herbs

basil	7
borage	20
coriander	7
chervil	10
dill	25
fennel	25
lavender	20
lemon grass	25
lemon balm	20
lovage	25
marjoram	10
mint	15
parsley	20
rosemary	20
sage	20
savory	15
sweet bay	30
sweet cicely	20
French tarragon	25
thyme	15