

INTRODUCTION

Prepared salads are one of the fastest growing sectors within the fresh produce industry. Mixed salad bags found in supermarkets and box schemes no longer consist of just different coloured lettuces and rocket. There are lots of different leaves now grown for the market which are considered 'exotic' and interestingly a lot of them can be grown throughout the winter. They are therefore a commercially viable crop with plenty of opportunities for sale available. If mixed salad bags are planted to be the mainstay of an operation then lettuces will be grown along with exotics and possibly also supplemented by chicory.

CROPS TO GROW

There is a vast array of leaves to grow over winter, as with all crops, the choice will be dependent on soil type, climate and whether or not protection can be provided. Box 1 shows a range of salad leaves which should be suitable for growing in most areas of Wales to harvest over winter if protection can be provided.

Box 1: Exotic salad leaves for Welsh production

Rocket (salad and wild)
 Greek cress
 Pak Choi (many varieties)
 Leaf radish 'saisai'
 Mizuna
 Mibuna
 Tatsoi
 Corn salad (lamb's lettuce)
 American cress
 Claytonia (winter purslane)
 Endives
 Mustards (Green in snow)
 Salad Burnet
 Chards
 Komatsuna

Combinations of the varieties in Box 1, mixed with lettuce leaves should provide the contents of a quality salad bag. A high proportion can be used as 'cut and come again' crops with a number of cuts throughout the cropping season.

CONDITIONS REQUIRED

Although a quite a few of the suggested leaves will grow outside with little more protection than some horticultural fleece, they are better grown in either a polytunnel or low field cloches. With either of these options ventilation is vital to reduce the incidence of a number of diseases. A moist fertile soil is the ideal but as a lot of these crops are brassicas then they are not that fussy. However, as with most leaf vegetables, the addition of compost prior to planting will help matters.

PREPARATION AND PLANNING

In order to have sufficient crops to span production from Autumn through to Spring good rotational planning will be required as well as successional sowing. Minimal growth takes place during the depths of winter therefore late summer sowing / planting is vital. Growth will pick up in early spring. Generally most of the suggested crops can be grown in modules and then planted in Autumn.

CULTIVATION

Whether sowing direct or transplanting, it is important to water well until the crops are established. Thereafter it is best to keep the plants on the dry side to prevent botrytis or mildew occurring: weekly watering should be adequate. Keep the plants clean and remove any damaged leaves. Tunnels are quite slow to warm up in winter, particularly if there has been a frost and therefore horticultural fleece will be required. A regular weeding programme should be implemented.

Table 1 shows the planting / cultivation schedule for the crops listed in Box 1.



Fig 1: Salad leaves under field cloches

Table 1: Planting and cultivation schedule for selected exotic salad leaves

Crop	Sowing	Sowing method	Cropping	Harvesting
Rocket	Aug - Sep	Modules 15 – 20cm apart	December onwards	Many cuts can be taken
Pak Choi	Sep - Nov	In situ or modules 25cm apart	Nov onwards	Harvested any stage
Leaf radish 'saisai'	Aug - Oct	In situ	Nov onwards	Use young leaves + radish
Mizuna	Aug - Oct	Modules 20cm apart	Nov onwards	Cut the whole plant and allow to regrow
Mibuna	Sep - Oct	Modules 20cm apart	Nov onwards	Normally cut and allow to regrow
Tatsoi	Sep - Oct	modules 20cm apart	Feb - Mar	Individual leaves or cut and allow to regrow
Corn salad	Aug - Oct	Direct 10cm apart	Nov onwards	Whole plant or cut and allow to regrow
Komatsuna	Sep - Oct	In situ or modules 40cm apart	(8 weeks after sowing)	Use young leaves. Cut and allow to regrow
Chard	Aug - Sep	Modules 25cm spacing	Feb onwards (8-12 weeks after sowing)	Leaves when young
Salad Burnet	Jun - Jul	Modules or direct sown	Oct – April	Individual leaves or trim down to base
Mustards	Sep - Oct	Modules 15 – 20 cm apart	Nov onwards	Individual leaves
Endives	Jul - Aug	Modules	Nov onwards (8-14 weeks after sowing)	Individual leaves or cut the whole plant and allow to regrow
Claytonia	Aug - Nov	In situ or module trays 15 – 20cm spacing	Oct - May	Cut as required
American cress	Up until Sep	Direct or modules 15 cm apart	Dec onwards	Pick when approximately 10cm high

PESTS AND DISEASES

Slugs are the major pest of salad leaves, closely followed by flea beetle, white fly and aphids (protect with nets/fleece). Diseases over winter under protection are likely to be botrytis or downy mildew (keep well ventilated, do not over water and where possible avoid watering the leaves).

MARKETS / ECONOMICS

Like many other crops continuity of supply will help maintain your sales, but prices are likely to be variable depending on the weather. Gross margins will also depend on what your market is: direct sales, for example, are likely to be higher, but with shelf life being limited you may have to factor in more labour costs for more frequent harvesting. Mixed leaves can be sold direct to pubs, restaurants, put in box schemes or simply sold in bags.