

# COURGETTES

Courgettes, marrows and certain pumpkins are all fruit of the *Curcubita pepo* species. Courgettes are immature marrows. Courgettes are a relatively easy outdoor crop to grow. They can be harvested from June through to autumn in Wales.

## SITE

Courgettes need a rich, moisture retentive soil. Avoid areas prone to cold winds and late frosts. Irrigation, or some form of supplementary watering, may be necessary to ensure the fruits fill fully in dry summers.

Courgettes are moderately tolerant of acidity, but aim for a pH between 6.0 and 6.5.

There are no specific recommendations for rotation interval for courgettes. They fall into the “other” category in vegetable rotation planning and at least a two year interval between crops is good practice.

## PLANTING

Courgettes can be sown directly in the field, with a target population of 10,000 plants per hectare (1m<sup>2</sup>/ plant). However, it is more usual to raise the plants in modules under protection and then transplant them once three true leaves are formed (around three weeks from sowing).

Plants for transplanting can be sown from mid-April through to mid-July to produce successional harvests. Do not direct drill or plant out until the risk of frost has passed and try to plant during a period of mild, still weather. Cold winds soon after transplanting can severely retard a crop.

## CROP NUTRITION

Courgettes are hungry, thirsty plants. They grow rapidly and produce bulky fruits with high water content. It is therefore important to ensure that there adequate amounts of both nutrients and water available. If soil indices are below 3 for N, P or K or, below 2 for Mg, Defra guidelines recommend application of fertiliser (see table 1). Fertiliser should be applied prior to planting.

**Table 1 – Fertiliser recommendations for courgettes from RB209**

	SNS, P, K or Mg Index						
	0	1	2	3	4	5	6
	kg/ha						
Nitrogen	100	100	100	40	0	0	0
Phosphate (P <sub>2</sub> O <sub>5</sub> )	175	125	75	25	0	0	0
Potash (K <sub>2</sub> O)	250	200	150(2-) 100(2)	0	0	0	0
Magnesium (MgO)	150	100	0	0	0	0	0

Source: Defra – Fertiliser recommendations for agricultural and horticultural crops (RB209)

Incorporation of well rotted manure the autumn before planting will go a long way to improving water retention and available nutrients.

## MANAGEMENT

Once established, courgettes grow quickly. The main management tasks are manual control of weeds; inspection for pests and disease; inspection for ripening fruit; and ensuring adequate water is available to the plants.

## PESTS AND DISEASES

Courgettes generally present relatively few pest and disease problems.

Most courgette crops will be affected by **aphids** to a greater or lesser extent. Only extremely severe infestations will reduce crop yield, but aphids can spread viral infections. There are some aphicides approved for use with courgettes, but if it is decided that use of a pesticide will be economically effective, ensure the chemical used is not deleterious to bees (which are needed to pollinate the crop).

**Powdery mildew** affects many courgette crops. Infection with powdery mildew will reduce fruit size and quality. Regular inspections will enable early identification of the problem and enable fungicidal treatment to be applied. However, treatment will only decrease the rate of progress of the infection; it will not cure it completely.

**Cucumber mosaic virus** and **zucchini yellow mosaic virus** are the two most important viral infections of courgettes: both have the ability to completely wipe out a crop. There is no treatment for these diseases. Once the virus is in the crop it can be spread by aphids and by knives at harvest. Varieties of courgette with resistance to these viruses are becoming increasingly available (e.g. Supremo, Tarmino, Zucchini, Defender).

## HARVEST

The size at which to harvest courgettes should be determined by your market. Smaller courgettes (c.10cm in length) should command a higher price and it is the value of the harvest which should be maximised, not the physical yield.

Harvest the crop with a sharp knife, cutting to leave a small amount of stem attached to the courgette. Handle the fruit with care as their skins are thin and damage easily.

Each courgette plant will produce fruit over a period of several weeks. If desired, and there is a market, some courgettes can be left to ripen into marrows.

Courgettes do not keep well and will soon start to dehydrate once picked so aim to keep the interval between picking and sale as short as possible.

After harvest ensure that all plant debris is thoroughly cleared from the site to minimise build up of pests and diseases.

## Indicative margins for one hectare of courgette production

	Item	Quantity	£/Unit	£ Total
<b>Outputs</b>				
Crop Sales	5kg boxes	5000	3.50	17,500
			<b>Total Outputs</b>	<b>17,500</b>
<b>Costs</b>				
Casual Labour	Harvesting	1600hrs	6.00	9,600
Contract Labour	Planting	70hrs	6.00	420
Fertiliser Costs	Fertiliser	1	165.00	165
Other Costs	Packaging	5000	0.25	1250
Seed Costs	Plants £40 per '000	15	40.00	600
Spray Costs	Herbicide	1	200.00	200
			<b>Total Costs</b>	<b>12,235</b>
<b>Gross Margin</b>				<b>£5,265</b>

Source: ADAS



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