

Can Horticulture Grow Your Business? An Overview To The Horticulture Wales Online Crop Calculator

Demand For Welsh Food

Food and farming is one of the major priority sectors in the Welsh economy. It already contributes more than £5.2 billion a year – as well as providing 45,000 jobs – while the Welsh Government’s ‘Action Plan for the Food and Drink Industry 2014-2020’ aims to increase this figure to £7 billion by the end of the decade.

Visit Wales research also discovered that more than a quarter of day visitors (28%) ate at a food establishment because Welsh food was on the menu. The same data also identified that food is one of the most important factors in the level of satisfaction visitors reported in relation to their visit. Many buyers of horticultural produce, including wholesalers, retailers, caterers, and those involved in the wider Welsh hospitality industry, have expressed a desire to source local produce.

To meet this growing demand for produce of Welsh provenance, many conventional farms – i.e. arable, livestock and dairy – are seeking to diversify into horticulture to increase the profitability of their business and to ensure a sustainable and robust crop production business for the future.



Is It Worth Diversifying Into Horticulture?

There is a range of data available concerning the potential economic returns from different types of farming activities and farm diversification options. However, when it comes to financial information about horticulture, there is currently a shortage of reliable statistics for potential and existing growers in Wales to use as an aid to managing their businesses and to compare with industry standards. This type of information does exist for other Welsh agricultural enterprises, such as beef, sheep, and arable farming, enabling farmers to use the data to calculate what could be viable on their farms, as well as predicting what the returns are likely to be. While horticulture margins are available at a UK level, these are unlikely to have the sensitivity to develop new crop production streams for growers in Wales.

Horticulture Wales has researched and produced validated gross margins for 10 crop types with potential for widespread uptake by Welsh horticulture grower businesses. The 10 crops were chosen to represent a cross-section of horticultural crops and production systems which have been identified as suitable for Wales, and present a market opportunity either through direct farm sales i.e. veg box schemes, supplying local farm shops, restaurants and hotels, or to the wholesale and retailer markets.

At their simplest, gross margins are the gross financial outturn minus crop-specific variable costs. This gross margin data can be supplemented with a labour profile detailing what hours are required and when they are needed, so prospective growers can avoid crops that overlap with, for example, the lambing season, or if several enterprises are considered then all of the labour is not required at the same time. The gross margin will also give some idea as to when the crops will produce some financial input into the business, which can assist with cash flow.



The Online Crop Calculator Tool

The Horticulture Wales Crop Calculator has been produced to allow growers to input their own data on production areas and yields, so they can easily compare the standard gross margin data for the 10 selected crops. The tool also offers a more in-depth feature, where growers can input and amend a range of variable costs, for example labour, fertiliser, or distribution, in order to generate more robust farm-specific gross margins and breakeven prices.

The tool must be used with some caution as, for example, crops with very high gross margins are likely to have very limited sales potential. In addition, figures will obviously vary from farm-to-farm and from season-to-season.

The Crop Calculator tool is aimed at helping growers and potential growers:

- Evaluate new crops
- Produce business plans
- Highlight possible labour requirements, and identify when this labour is needed
- Estimate the investment needed to produce certain crops
- Determine whether diversification is a viable business opportunity in response to changing market conditions.



The 10 Crops – Quick Economic Summary

The table below demonstrates the gross margin value for the 10 selected crops, according to crop type and production system, for potential uptake by growers in Wales. All figures are exclusive of VAT.

Crop	Cropping system	Direct farm sales gross margin (per ha)	Wholesale/ retail gross margin (per ha)
Apple	Juice bottled on site	£14,123	£8,648
Asparagus	Field grown	£14,270	£1,670
Baby leaf salad	Grown in an unheated polytunnel or glasshouse in substrate, bagged for sale	£15,699	£455
Cauliflower	Field grown	£2,937	£64
Fresh cut herbs - annual	Grown in an unheated polytunnel or glasshouse in substrate, bunched	£27,349	£16,841
Fresh cut herbs - perennial	Grown in an unheated polytunnel or glasshouse in soil – bunched	£200,946	£87,986
Kale	Field grown – picked over continuous harvest	£18,678	£6,454
Leeks	Field grown – traditional long season	£12,750	£1,950
Raspberries	Outdoor, soil grown	£23,618	£5,058
Rhubarb	Field grown garden or green pulled	£8,195	£1,475
Strawberries	Protected table top production in substrate under Spanish tunnels	£39,509	£5,509



The margins outlined above are split into:

- **Direct farm sales**, which would be most relevant for smaller businesses (i.e. ‘pick your own’, farm shop, sales to restaurants, and vegetable box schemes)
- **Supermarket/wholesale/retail**, which would be more suitable for larger scale enterprises and includes a commission price set at 8% of gross profit.

Unless otherwise stated, the gross margins include the variable costs of production for one full cropping year per ha. They do not include any establishment costs for the perennial crops, or any infrastructure costs for growing structures or associated equipment. All figures are exclusive of VAT.

All of the figures are given in hectares for comparison, however, it should be noted that with some of the more intensive crops, the margins could be divided by ten to give outputs and costs per 1000 m² which, conveniently, is roughly equal to a quarter acre.



How Was This Information Collected?

Data was collected from a variety of sources, including published gross margins, agronomists, farmers, growers, and other publications. Where data was sourced from outside of Wales or from large commercial holdings, adjustments and calculations were made to make the information relevant to Welsh situations. The consolidated Welsh gross margin was then validated by ADAS horticultural consultants with extensive experience of the Welsh horticultural sector and, where possible, with Welsh growers.

To be valuable to a farmer or grower, the gross margins need to be tailored to each specific enterprise. The gross margins produced by the Crop Calculator may help to give an idea of what could be expected from a cropping system and provide a useful check on technical performance, but they **should be used only as a guide** and are not guaranteed outputs for the crops detailed.

