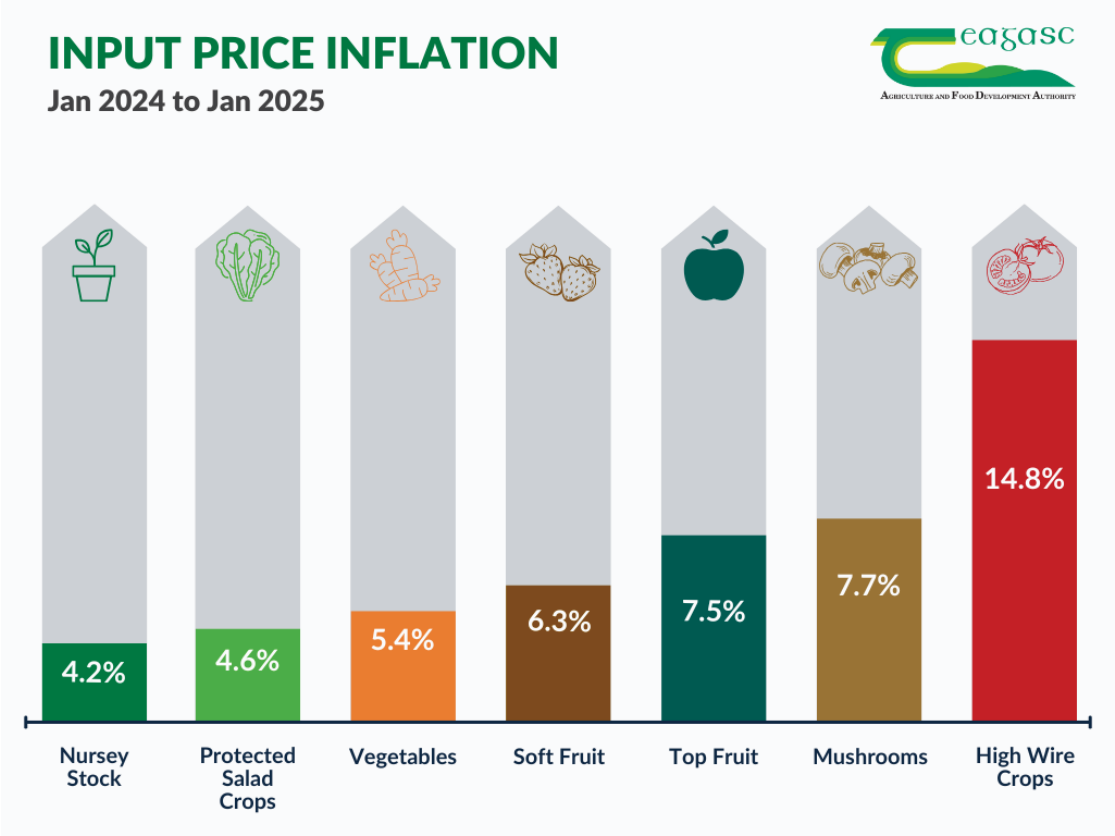
Agriculture and Food Development Authority

Horticulture Development Department

Horticulture Crop Input Prices 2025

- The average input prices across all horticultural sub-sectors have risen in 2025.
- A snapshot of input prices in January 2025 compared to January 2024 has been taken. All sub sectors of horticulture show input price inflation across most of the key inputs.
- Since the first report of this type in 2021, combined horticultural inputs have risen by on average 51% and increases range from 36% - 76% across horticultural sub-sectors.
- In 2025, labour which accounts for 42.6% of the input costs in horticulture, has contributed significantly to overall input price inflation in the sector.
- Margin over costs for primary producers will need to improve, as well as longer term sourcing agreements to incentivise investment and allow generational renewal of businesses.
- Investment from the sector to reduce the reliance on labour and the impacts of climate events will require a market response to ensure the economic and environmental sustainability of Irish horticultural production into the future.
- Technologies to reduce the reliance on labour are beginning to be trialled in some key horticultural sub-sectors, however the financial cost of these technologies is significant and availability likely to be limited in the short to medium term. These investments will need to be supported.
- The sourcing of labour continues to be a significant challenge. The sector needs to avoid a gap between the availability of labour and availability of labour saving technologies.
- Technologies exist to extend the growing season of existing crops and also diversification into new market opportunities. Growers need to be incentivised to invest in these systems to bring production closer to consumption while reducing labour requirements, food waste and packaging associated with long supply chains.
- Horticultural fresh produce has a comparatively low environmental footprint compared to other foods and has significant health benefits for consumers.



Introduction

Key Objective

The key objective of this report, as with previous reports is to surface up to date facts about specific inputs prices in January 2025 compared to January 2024. This is an important exercise, as prices negotiated now for product delivered in 2025 will need to reflect these increases in variable costs along with other considerations producers need to cover production costs.

This report takes account of the most important cost inputs and the relative importance of these inputs to the different sectors of horticultural production arriving at average changes in input prices in each sector for 2025.

The report also comments on the status of each sector and potential impacts of high input prices for primary producers now and for the rest of 2025 season. This is now the fifth report of this type, first produced in 2021.

Background

The challenges faced by the Horticultural sector are varied, however over the last two years the combined impacts of climate change, energy cost fluctuations and the cost and availability of labour are increasingly driving an increase in the cost of production. The recent impacts of Storm Éowyn in January 2025 highlighted the damaging effect that weather events can have on the sector. While Storm Éowyn was a dramatic event, it followed on from a very difficult 2024 growing season. High rainfall levels in February and March, following a very wet autumn and winter period in 2023 resulted in delayed and lost harvests in the autumn of 2023 and lost plantings in the spring of 2024, as well as disrupting the tillage sector, with the lack of availability of straw driving cost increases in the mushroom and carrot sectors. Overall 2024 was a dull year, with poor pollination conditions in

the spring of 2024 adversely affecting pollination rates in crops such as Apples. Overall poor light levels in 2024 affected the growth of protected crops such as strawberries and tomatoes.

Best evidence indicates that events such as those in 2023 and 2024 are likely to increase with heavy precipitation events in autumn and winter predicted to increase by 5-19%[1], with dry periods during the summer predicted to increase from 11-48%[1]. This indicates that Irish growers will need to invest to increase the resilience of their crops and production systems, as difficult growing conditions are increasingly likely to affect all stages of crop production. Ultimately, all inputs are expensive when crop quality suffers, if yield is impacted, or indeed if a crop cannot be planted (or harvested) at all.

In 2025, in line with previous years, growers have again seen significant increases in labour costs. Labour is a key input in the horticulture sector and represents on average 42.6% of total input costs. Growers have been negotiating with their consolidator or supermarket buyer for price increases over recent years with varying degrees of success. Increases will be required in 2025 to cover input price inflation and provide margin to de-risk the business model with regard to the vagaries of climate, incentivise generational renewal and allow margin for additional capital investment to mitigate these headwinds.

Table 1 summarises the compound inflation on variable costs experienced by horticulture sub sectors since 2021. In general price increases obtained by the sector have not kept pace with the year on year inflation in input cost prices.

Table 1: 4-year compound inflation on input prices by sub-sector

Horticulture Sector	% increase 2021-2022	% increase 2022-2023	% increase 2023-2024	% increase 2024-2025	4-YR Total since 2021
Mushrooms	18.50%	10.20%	12.80%	7.70%	58.64%
Nursery stock	13.00%	10.80%	5.40%	4.20%	37.51%
Soft Fruit	14.00%	7.70%	4.30%	6.30%	36.13%
Top Fruit	16.00%	9.60%	6.30%	7.50%	45.30%
Vegetables	26.00%	7.90%	5.10%	5.40%	50.60%
High Wire Crops	49.00%	2.80%	0.30%	14.80%	76.37%

Methodology

Access to timely data in relation to input prices, across all farm sectors, but particularly horticulture is a challenge and is highlighted in the National Strategy for Horticulture 2023-2027, Key Strategic Action 6. Official data sources tend to lag behind the actual market situation. Therefore, it is necessary to reference additional data sources, industry expertise and direct contact with stakeholders to form an up to date assessment of input prices to empower producers trying to maintain margin over costs. In the preparation of this report, our advisory service have directly interacted with 58 primary producers and 15 external providers of services and goods, producer organisations and other state agencies. Where possible, we select growers of differing production scales and also a range of different crops, if applicable to that sub sector. In relation to primary producers, we provide them with a template to state the changes in their main input costs, from January 2024 to January 2025, including a requested narrative to explain changes in costs (if known). This gives us a perspective on the real input price increases across a myriad of inputs in the main horticulture sub-sectors, as currently quoted to the sector by suppliers. We have assessed the relative importance of inputs to sectors, and calculated percentage increases between January 2024 and January 2025. Where possible, we have also directly engaged with companies supplying products and services to the sector to verify reported changes in the costs of services and products.

Note: While every effort has been made to reflect the reality for a grower in a particular sector, it should be noted that there is significant variation in the shape and size of production facilities, product mix and average price. This year, following on from 2023 we have separated protected salad crops out as an additional sector. We have looked at the following sectors: **Field Vegetable, High wire crops, Protected Salad production, Mushroom production, Soft Fruit, Nursery Stock** and **Top fruit (apples)**. While averaging has been used to best express the increases in input prices, it may not accurately reflect the actual increases for specific growers or crops. We have limited the exercise to production facilities and primary producer facilities. It has not been possible to cover all enterprise types or sub-sectors in this analysis.

Costs not captured

Growers in similar enterprises have different overheads in their business and require a margin to meet these overheads. This report does not fully capture these costs, which typically relate to legal or professional fees, accountancy, sundry expenses, administration, repairs and maintenance and loan repayments. **Bank finance** in the form of asset finance, overdrafts and term debt are important financial products for primary producers in managing and expanding their business and commentary is required for 2024. There is no one size fits all when it comes to individual businesses within sectors.

According to Central Bank, interest rates on outstanding loans for the primary agriculture sector decreased in the second half of 2024 to stand at 5.32% (Sept' 24) (Sept 2023 was 5.53%). Additionally, the level of credit advanced to enterprises growing crops, market gardening or horticulture has decreased from €176m to €158m (from Sept' 23 to Sept' 24). The interest rates on new loans for the primary agriculture sector decreased over the third quarter in 2024 and the year, and now stands at 5.66% (Dec 2023 was 5.78%). Interest rates on outstanding SME loans decreased to 5.1%, with the weighted average on core outstanding SME loans decreasing to 5.11%. (Source: Central Bank of Ireland - SME and Large Enterprise Credit and Deposits)

The impact on a business will depend on the borrower, the lender, amount borrowed and loan term. As the drive to adopt automation to reduce labour costs and adopt investments to provide climate resilience to the sector, the ability to finance investments will be critical.

Capital expenditure and Construction costs

As the horticulture sector is capital intensive, increases in construction and development costs associated with capital expenditure in the horticulture sector requires commentary. Producers continuously invest in equipment, facilities, and infrastructure to remain viable. Adopting technology or the latest production system requires significant investment over time. The Central Bank have stated that construction costs in Ireland are at the higher end of the price spectrum in Europe. The outlook for construction costs in Ireland remains challenging with expectations of further increases in costs owing to a number of factors including supply chain issues as well as increases in commodity prices. View the Central Bank of Ireland's 'Rising construction costs and the residential real estate market in Ireland' report for more information.

According to the SCSI's Tender Price Index, (TPI), the annual median national rate of inflation for the calendar year 2024 was 3%, down from the 3.9% recorded in 2023. See the Tender Price Index – February 2025 for more details. The availability and cost of suitable labour has become the more dominant concern for the sector, driven by skilled labour shortages and wage demands.

Key Horticulture Inputs

Table 2: Relative importance of inputs as a percentage of total input costs in 2024

Horticulture Sector	Labour	Packaging	Fertiliser	Plant Protection	Energy	Sector Specific Inputs	Other
Mushrooms	44.1%	8.8%	0.0%	1.3%	6.6%	34.0%[1]	5.2%
Nursery stock	44.0%	5.0%	5.0%	6.0%	6.0%	5.5%[3]	29.0%
Soft Fruit	44.0%	5.0%	5.0%	5.0%	12.5%	10.0%[3]	18.5%
Top Fruit	46.9%	9.2%	2.4%	13.8%	3.3%	0.0%	24.4%
Vegetables	39.6%	5.2%	6.6%	4.7%	5.4%	13.8%[2]	24.7%
Protected salad crops	40.9%	8.7%	5.8%	4.7%	6.2%	16.6%[3]	17.1%
High wire crops	38.8%	5.0%	2.9%	1.8%	25.7%	9.5%[3]	16.3%

[1] Compost / Substrate / Casing material | [2] Land Rental, seed / plants | [3] Growing Media, Growing Substrate, Seed and/or Plants

Labour

Labour continues to be the key input for the Horticultural sector. **In 2025, labour costs on average across the sector have increased by 7.3%. Labour represents on average 42.6% of total input costs for most sectors.** In January 2024, there were significant increases of between 12.5% and 24.3% depending on sector dependence on the General Employment Permits (GEP) and a combination of factors, which included National Minimum Wage (NMW) increases, and in 2025, an additional increase in the National Minimum Wage on January 1st 2025 has resulted in a further increase in the cost of labour. In addition to these increases there will also be additional cost increases during 2025, such as pension contributions (1.5% from 30th September 2025) and an additional increase in employers PRSI contributions (11.25% from October 1st 2025).

Increasing costs associated with advertising and recruitment over the period have been reported, as well as costs associated with assisting staff with accommodation, transit to and from the workplace, visa applications and providing other welfare services for staff. These elements are more difficult to assess in terms of overall labour unit increases and have not been included, but are increasingly significant costs for growers. Additionally, employer's liability insurance is not included in the labour costs, but many growers would view it as an essential cost when employing staff.

Obviously any change in the rate of the Minimal Annual Remuneration (MAR) for General Employment Permit holders will have a very significant impact on the input costs described in this document. Previous increases in the MAR thresholds created barriers to accessing essential workers and the MAR is currently under review by the Department of Enterprise, Trade and Employment. 2025 will see a pilot of a Seasonal Employment Permit (SEP), largely focused on the soft fruit sector. The creation of a full SEP scheme is seen as essential to helping to remedy the labour shortage in the Horticultural sector (National Strategy for Horticulture, Key Strategic Action 3). In 2019, a Teagasc Labour force survey indicated that 67% of growers reported that the tightening of the labour market undermined their confidence to expand, with 57% reporting that they were finding it difficult to maintain current output.

Table 3: Labour unit price inflation Jan 2024 v Jan 2025

	2023 NMW[7]	2024 NMW	2025 NMW	Current GEP[8] rate 2025
Hourly rate	€11.30	€12.70	€13.50	€14.79
Annual wage[2] (40 hr week)	23,503	26,416	€28,080	€30,000[1]
% increase on previous year	**8%**	**12.4**	**6.3%**	
Employer contribution	€3,784[3]	€4,438[4]	€4,956[5]	€5,306[6]
Permit cost	€0	€0	0	€1,000
Total labour unit cost per annum	€27,287	€30,854	€33,036	€36,306
Total labour unit cost hourly	**€13.12**	**€14.83**	**€15.88**	**€17.90**

[1]General Employment Permit hours calculated on a 39 hr week | [2] Annual wage includes 20 days annual leave
[3] Employer Contribution 2023 NMW calculated at 16.1% (10 Bank Holidays (3.8%); 3 Day Sick Leave Entitlements (1.25%); Employers PRSI (11.05%))
[4] Employer Contribution 2024 NMW calculated at 16.8% (10 Bank Holidays (3.8%); 5 Day Sick Leave Entitlements (1.95%); Employers PRSI (11.05%))
[5] Employer Contribution 2025 NMW calculated at 17.65% (10 Bank Holidays (3.8%); 7 Days Sick Leave Entitlements (2.7%); Employers PRSI (11.15%))
[6] Employer Contribution GEP 2025 calculated at 17.69% (10 Bank Holidays (3.85%); 7 Days Sick Leave Entitlements (2.69%); Employers PRSI (11.15%))
[7] NMW – National Minimum Wage | [8] GEP – General Employment Permit

Packaging

Packaging includes cardboard boxes and trays, polypropylene net bags, LDPE vegetable bags, PET & PP containers (Punnets/Trays), Polyethylene (PE) packaging, labels including metallic elements and foil. It also includes flow wraps, films, strapping, plastic outer crates and wooden pallets and bins.

For 2024 we found the price increases of packaging products, ranged from 0% to 3%. In 2023, there were wide variances in the cost of packaging reported (-6% to 24%) but these have not been repeated. In general the increases in 2023 stemmed from an increase in the use of paper based packaging. The cost of cardboard based products seems to have stabilised. However it should be noted that the cost of energy, particularly gas is increasing and this may impact plastic based products if high energy prices were to continue. Our sources of information on packaging prices include growers, producer organisations who buy packaging centrally, and packaging suppliers.

Fertiliser

Fertiliser represents between 2.9% and 6.6% of total input costs. Similarly to 2023, in 2024 there are reported reductions in the cost of straight fertilisers and CSO figures indicate that over the 12 months to November 2024, there were significant reductions in the input prices recorded for Fertilisers (-9.4%). CSO data indicates that CAN reduced by 9.9% from €391/tonne in December 2023 to €352/tonne in December 2024. In the same time period, 7-6-17, reduced by 15% from €655/tonne to €555/tonne. **However in the horticultural sector in 2024, reported fertiliser cost inflation within the sector rose by 3.0% to 7.2%.** In a key sector such as field vegetables, fertiliser now makes ups 6.6% of the cost of production and has inflated by 7.2% since January 2024, having deflated by 12% in 2023 and 32% in 2024. Speciality fertilisers used in protected cropping environments are reported to have increased by 3% to 3.4%. In 2023 these products were reported to have deflated in cost by 18%-20%.

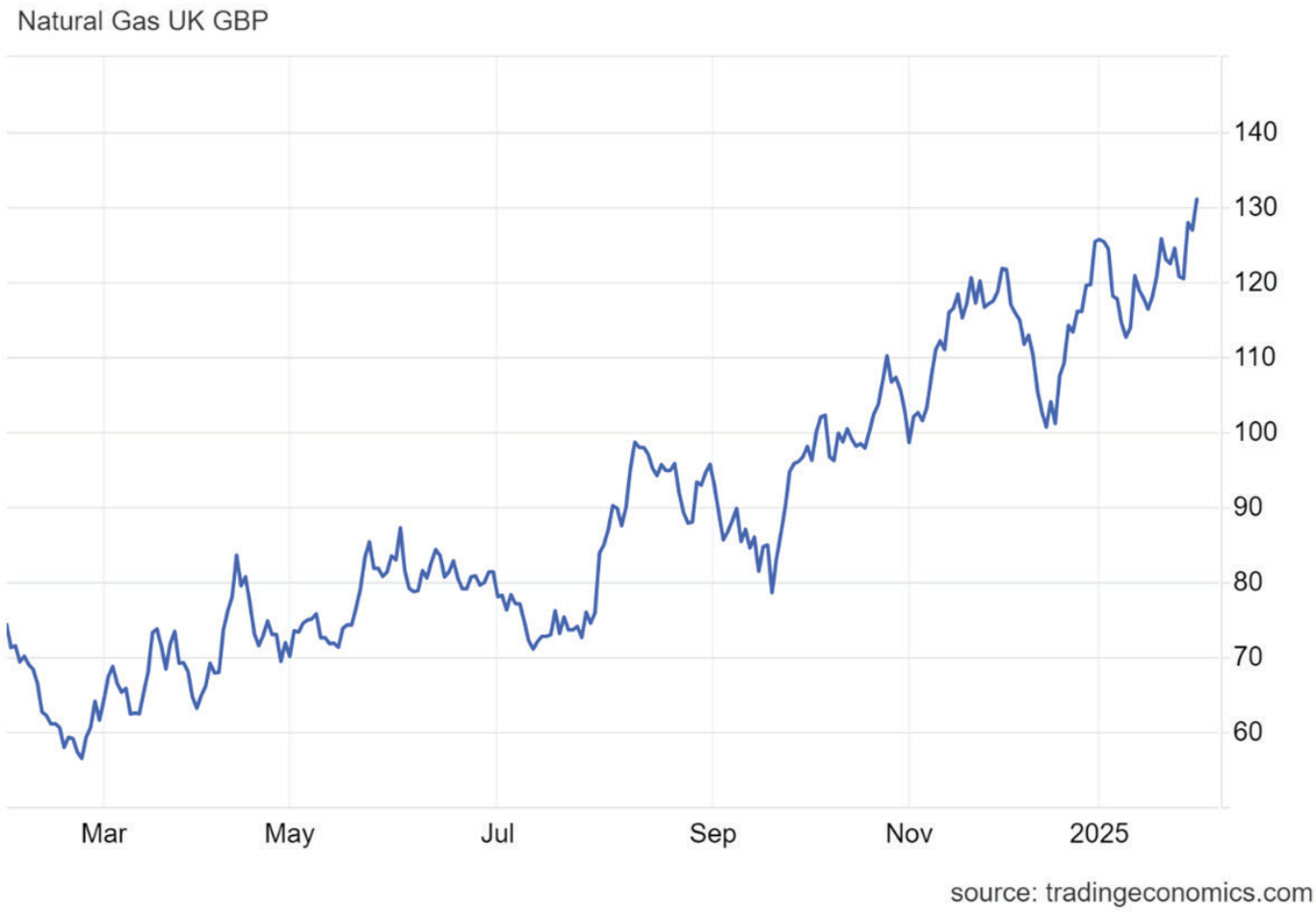
Energy

We have referenced data from growers on electricity costs and heating costs provided by oil, gas, biomass and the electricity grid. Energy is a significant cost for many horticulture enterprises where crops are grown indoors in glasshouses and protected greenhouse structures. While electricity and fuel prices soared during 2022, in 2023 they stabilised and reduced. We have seen a return to rising energy costs in 2024, particularly in relation to natural gas and electricity. The cost of natural gas reported by the sector has increased by 59.8%2 in the period January 2024 (76.5 (GBp/thm)) to January 2025 (122.06 (GBp/thm)) (Average monthly price, Source: tradingeconomics.com). The reported energy price increases from the sector are between 1% to 53.8%. In general, exposure to energy price fluctuations is dependent on crop type, contracts, and the specifics of the energy system in use. In sectors where primarily biomass is utilised, such as in the mushroom sector, there were small increases in biomass costs reported, however in general increases in energy prices has affected the entire sector. CSO data would indicate that wholesale electricity prices are 67.7% higher in January 2025, than January 2024 (View the CSO's Wholesale Price Index January 2025 for more information) .

Protected high wire crops are dependent on gas for heat and carbon dioxide supplementation, with other crops such as strawberry increasingly being heated to increase the productive season.

Wholesale gas prices have increased significantly in the reference period (Natural Gas UK GBP (GBp/thm). On the 15th of January 2024 the cost of gas was approx. 73 (GBp/thm), this has increased to 116.65 (GBp/thm) by 15th January 2025 (Fig 1). Similarly, in terms of a 5 year trend the cost on January 15th 2021 was 64.48 (GBp/thm).

Figure 1: Natural Gas UK GBP



Commentary by Sector

Table 4: Input price inflation Jan 2024 v Jan 2025

Horticulture sector	Labour	Packaging	Fertiliser	Plant protection	*Energy	Sector specific Inputs	Other	% increase costs of production 2024-2025 (weighted)
Mushrooms	7.9%	0.0%	0.0%	2.6%	13.6%	8.9%[1]	5.5%	**7.7%**
Nursery stock	7.5%	0.0%	3.0%	1.0%	1.0%	1.5%[3]	2.0%	**4.2%**
Soft Fruit[4]	6.6%	3.0%	3.0%	3.0%	3.0%	10.0%[3]	8.5%	**6.3%**
Top Fruit	6.3%	3.0%	5.0%	15.0%	5.0%	0.0%	8.0%	**7.5%**
Vegetables	7.7%	1.2%	7.2%	1.5%	2.0%	7.1%[2]	2.8%	**5.4%**
Protected salad crops	7.1%	1.2%	5.3%	1.5%	2.0%	4.0%[3]	2.1%	**4.6%**
High Wire crops	7.1%	2.0%	3.4%	2.7%	53.8%	8.9%[3]	2.1%	**14.8%**

**Energy includes electricity, oil, natural gas, and biomass where applicable | [1] Compost, Substrate or Growing Media | [2] Land Rent, seed and/or plants*
[3] Growing Media, Seed and/or Plants | [4] Cost inflation for heated strawberry production estimated to be 13.7%. (Please see soft fruit section)

Mushroom Sector

The mushroom industry is the largest horticultural sector in Ireland. It has a farm gate value of €158.6 million, of which approximately 85% is exported to the UK. The sector employs 2,968 people of which 2,009 people work directly on mushroom farms (Gernon, 2023). In 2023, total horticulture and cereals exports were valued at €295 million, of which mushrooms accounted for almost 49% of the total export value (Bord Bia, 2024). Currently there are 32 mushroom production facilities in the Republic of Ireland owned by 25 mushroom growers (some growers own more than one mushroom production facility). Teagasc estimates total mushroom production in ROI to be 70,000 tonnes of mushrooms in 2024 (based on estimates provided by four Producer Organisations).

Labour

Labour is defined as an input for the purposes of this report. Looking at the relative importance of inputs as a percentage of total input costs, labour is the key input in the horticulture sector and represents on average 42.6% of total input costs for most sub sectors including vegetable, fruit and amenity sectors. **In the context of the mushroom Industry, labour represented 44.1% of total input costs.** Following the Budget 2025 announcement, Ireland's national minimum wage will increase by €0.80 per hour, rising from €12.70 to €13.50. This represents a 6.3% increase, effective from January 1st, 2025. This increase coupled with an increase in Employers PRSI of 0.1%, increase in statutory sick leave entitlements from five to seven days and the introduction of pension auto-enrolment from 30th September 2025 has seen mushroom producers **overall labour costs increase by 7.9%**. A significant portion of operatives and harvesters working on mushroom farms are from non-EU countries, employed under General Employment Permits. One major issue facing growers is the

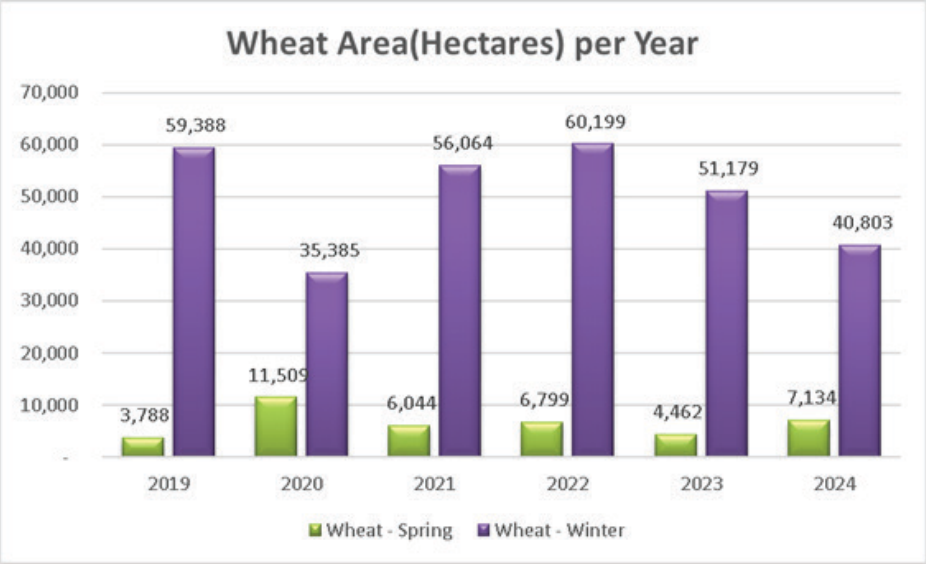
requirement to raise the salaries of these workers from the current minimum wage of €25,756 (2024 NMW, 39hr week) to €30,000 when renewing their permits. This development is particularly alarming for mushroom growers, many of whom operate on slim profit margins.

The mushroom industry is heavily reliant on the General Employment Permit scheme due to difficulty sourcing suitable staff from EU countries. Non-EEA workers play a pivotal role in bridging labour shortages, particularly given the low availability of domestic seasonal workers. However, the increasing Minimum Annual Remuneration (MAR) thresholds are creating barriers to accessing this essential workforce. The table does not take into account potential increases to the Minimum Annual Remuneration (MAR) thresholds for employment permit holders. The planned January 2025 MAR threshold increases was postponed until the review of the MAR was completed by the Department of Enterprise, Trade and Employment.

Substrate

Mushroom substrate price has increased by 8.9% in the reference period. Mushroom substrate represents 34% of total input costs, of which mushroom compost represents 30.6% and mushroom casing represents 3.4%. Straw shortages in Ireland have significantly driven up mushroom compost prices. Wheat straw is the main component of mushroom compost. Straw was in short supply in 2024 across all agricultural sectors with reduced area planted for winter 2023 sown crops and spring 2024 sown crops coupled with arable farmers opting for the Straw Incorporation Measure (SIM). The SIM is an environmental measure whereby arable farmers receive a payment for chopping straw and incorporating it into the soil. The area of winter wheat harvested reduced by 20% when compared with 2023 harvested crops (51.2 v 40.8 thousand Ha). Spring wheat area had increased versus the previous years, however this does not make up for the significant drop in overall wheat production (2024 wheat area down by 7,704 hectares). Teagasc estimate that the winter wheat plantings in 2024 are approx. 55,000 ha. See the graph below (Fig 2) which illustrates the winter and spring sown wheat area over the past 6 years.

Figure 2: Wheat Area (Hectares) per Year



Source: DAFM BISS – Crop Areas

The Baling Assistance Payment was announced at the end of July 2024 to run alongside the SIM. This scheme allowed farmers to withdraw from SIM and bale the straw. This measure helped bolster straw supplies, however there was still a significant shortfall in straw when compared with previous years. Mushroom composters have had to import straw from the UK and Spain. In January 2024, the average price of mushroom compost in Ireland was €238 per ton. The average price of mushroom compost has now risen to €259 per ton, representing an 8.7% increase. Obviously straw availability will remain challenging in 2025 until the winter wheat crop is harvested. Mushroom casing prices also increased in the reference period by 13.3%. This is mainly driven by an increase in transport and labour costs for the mushroom casing suppliers.

Packaging

Mushroom **packaging** is the 3rd largest input cost for mushroom producers as it represents 8.8% of all input costs. Both plastic and cardboard packaging prices remained stable over the last 12 months.

Energy

Mushroom production is highly energy intensive as crops are grown indoors year round with heating and cooling systems utilised. Biomass Pellets and woodchip are the primary fuel source used for heating Irish mushroom farms. Both fuel sources have remained stable over the past 12 months while oil and gas prices increased. This has increased heating costs for mushroom producers by 5.4%. Electricity costs have increased in the reference period for the majority of mushroom producers, however some growers fixed into contracts with low unit rates following deflation in 2023. **Overall energy prices inflated by 13.6% in the reference period.** Heating and Electricity account for 6.6% of the overall cost of production for mushroom producers.

Crop protection products prices increased slightly over the last 12 months by 2.6%, however this has very little bearing on the overall inflation in the sector as it only represents 1.3% of growers cost of production.

Other

The other category in mushroom production accounts for fixed costs. Growers indicated this category increased by 5.5%. Specific fixed costs which have increased include repairs/maintenance, insurance and waste disposal.

Soft Fruit

The soft fruit industry in Ireland is currently valued at approximately €50 million. The largest of the soft fruit crops grown is strawberries. This crop represents about 90 percent of the total soft fruit crops grown with an annual harvest of 10,000 tonnes of fruit. The largest production takes place in Leinster with counties Wexford, Meath and Dublin being the largest producers. **We estimate that input price inflation for this sector to be 6.3%, however for growers utilising natural gas we estimate the cost price inflation to be 13.7%.**

Labour

Labour is the biggest production cost in the soft fruit sector. This **accounts for at least 44 % of the total input costs on farm**. Labour is mainly required for harvesting, but also includes labour for crop management, crop replacement and pack house operations. Sourcing labour continues to be

increasingly challenging and costly. The National Minimum Wage increased on the 1st of January 2025, by a further 6.3% to €13.50, **with labour costs in the sector increasing 6.6% in 2024.**

While there has been an increase in growers indicating that they are utilizing the General Employment Permit scheme run by the Department of Enterprise, Trade and Employment (DETE), the very seasonal nature of soft fruit production labour requirements, make a seasonal worker scheme more preferential. DETE have indicated that a Seasonal Employment Permit pilot scheme will run in 2025, focused on the soft fruit sector.

Energy

The second biggest cost for those growers heating glasshouses is energy. Increasingly season extension is critical to meet market demands for a greater availability of Irish fruit. Energy makes up approximately 12.5% of the total costs of production in this scenario. **In 2024, growers have reported a 3% increase in energy costs, based off unheated soft fruit production.** However for growers utilising gas, given the sharp rise in gas prices in the reference time period, there is has been a significant cost increase in the reference period with energy increases adding an additional 7.5% to the total input price inflation for growers heating crops. As referenced in the overall energy commentary above, natural gas prices have increased by 59.8%[2] in the period January 2024 (76.5 (GBp/thm)) to January 2025 (122.06 (GBp/thm)) (Average monthly price, Source: tradingeconomics.com). The impact of energy costs in this sub-sector are dependent on the type of production being conducted under glass (season extension v main season) and the time of contract renewal.

Most soft fruit growers run both a pack house and distribution operations. The costs associated with this activity include labour, energy for cold storage and transportation, which have all increased in the past year, estimated at a 10% increase in operating these functions, following a 15% increase the previous year. **Packaging itself is estimated to have increased 3%.**

Plant Material and growth media is a significant cost for soft fruit production. Strawberry tray plant costs rose by 8%, since January 2024, which follows a 10% increase the previous year. Most strawberry plants are imported from the Netherlands. Therefore growers have a large exposure to the cost of road and sea transport which is continually rising. **Additionally the cost of growth media, predominantly coir has increased 10%.** As the demand for peat reduced and peat free growth media increases in both the retail and professional horticulture sector, the demand for coir is increasing.

Protected Crops

The protected vegetable sector includes a range of edible crops grown in greenhouse structures where controlled environments are required for crop production. Input costs vary significantly between crops. Tomatoes, cucumbers and peppers are grown on a **high wire system**, in a heated and controlled environment, in soil-less growing media (coir, peat or rockwool). Lettuce and herbs are frequently grown in the soil under glass in an ambient temperature or 'cold glass' as it is referred to in the sector. These crops are referred to as **Protected Salad Crops** in this report, and may have some heat applied in some growing contexts. There are however, exceptions to this and averaging across the protected vegetable sector can unfortunately mask specific spikes in input costs, for specific production systems and producers. For the purposes of this report, we occasionally separate crops grown on a high wire system under protection from other salad crops typically grown in soil or artificial substrate.

Input price inflation in high-wire crops is reported as 14.8% since January 2024. The inflation is primarily linked to increases to the cost of labour and natural gas, which the sector is dependent on for heat and carbon dioxide supplementation. **Input price inflation in the Protected Salad Crops is estimated to be 4.6%.**

Energy now accounts for 25.7% of the cost of production in the high-wire sector. The cost of natural gas has increased by 59.8%[2] in the period January 2024 – January 2025 and makes up a large proportion of the energy used by high-wire crop producers. Following extreme inflation in 2021 and early 2022, natural gas deflated by 51% up to March 2023 and a further 23% up to January 2024 as supply and price stabilised. Since January 2024, natural gas price escalated again and volatility remains around supply and price across the European market.

The cost of labour has increased by 7.1% in the protected crop sector and accounts for approximately 41% of the cost of production. These crops require skilled labour to carry out wide range of crop husbandry and harvesting tasks. While a modern protected glasshouse provides good working conditions, staff recruitment and retention still remains challenging.

The cost of seed in the protected vegetable sector has increased by an average of 7% in protected salad crops but up to 20% for the virus resistance varieties that tomato growers now need to use to avoid significant risk of crop loss. Adoption of new varieties with tolerance or resistance to various pest, disease or virus issues is an important part of integrated pest management in protected vegetables. These varieties can enable growers to produce more sustainable crops, helping to significantly reduce or eliminate the need to use crop protection products, while also retaining the required yield and market qualities in the produce in most cases. The development of new varieties and production of seed for these specialised crops has become more expensive in recent years and coupled with high demand has resulted in price increases which are passed to the grower.

Packaging (1-2%) and fertiliser (3-5%) have inflated slightly since January 2024 having deflated the previous year. **Crop protection products** continue to inflate at a rate of 1-3% since January 2024.

Field Vegetables

Input price inflation in the field vegetable sector has continued at a rate of 5.4% during the period January 2024 – January 2025, and input costs have inflated 50.6% since March 2021.

Weather conditions during the year play a very prominent role in determining the marketable yield, crop quality, continuity of sales and ultimately, profit margin in the field vegetable sector. As noted in previous reports, there is significant cost associated with both mitigating this risk, by investing in soil health, machinery, crop protection etc., or by carrying risk that it is either impossible or not feasible to mitigate and being exposed to crop and profit loss.

Since the publication of our last report, wet weather and soil conditions from August 2023 until late April in 2024 seriously affected quality and marketable yield of overwintered crops such as carrots, cauliflower and cabbage, while also significantly delaying the establishment of new season crops. Most vegetable crops were not planted or sown until mid-late April, meaning in many cases valuable early sales in the season were missed at a time when cash flow is generally limited for vegetable growers. In addition, many input suppliers (fertiliser, seed, plants etc.) are now offering growers

reduced credit periods due to risk, requiring growers to rely on any available cash reserves for working capital early in the season at a time when there is little cash flow in many crops. Once new season crops were established in 2024, cool and windy conditions along with poor light levels resulted in slow, albeit steady growth, resulting in excellent crop quality but mixed yields. In most cases new season brassica crops were not harvested until July, on average 3-4 weeks later than expected and resulting in oversupply of some crop lines later the summer. While yield on late sown root crops was generally reduced due to dry and cool conditions in August and September, very favourable weather in the autumn facilitated excellent harvest conditions and good quality.

Growers are continually investing to maximise efficiency and achieve greater levels of sustainability, but where available automation and labour saving technologies require significant multi-year investments. The investments required will need longer-term supply arrangements at sustainable prices in order to make significant investments to mitigate climate risk and put their businesses on an economical and environmentally sustainable pathway. **Margin over costs for primary producers will need to improve to incentivise investment and allow generational renewal of businesses.**

Labour

Similar to other horticulture sectors, **labour is the most significant input in field vegetable production and now makes up on average 39.6% of the overall cost of production**, although the relative importance tends to be slightly higher for hand harvested crops such as broccoli or cauliflower and slightly lower for machine harvested crops such as carrots or parsnips. As announced in Budget 2025 the minimum wage has increased from €12.70 to €13.50, an increase of 6.3%. **Since January 2024, the cost of labour in the vegetable sector has increased by 7.7%.**

Throughout the field vegetable sector there are extreme challenges sourcing and retaining staff in a very competitive labour market. This is compounded by the seasonality of many vegetable crops and the low availability and high cost of accommodation especially in North Dublin, which is a key production area. Labour costs are increasing as vegetable businesses try to retain and attract skilled and general operative employees and avoid the significant expense, disruption and risk associated with a high turnover of staff.

Fertiliser

Fertiliser now makes ups 6.6% of the cost of production and has inflated by 7.2% since January 2024, having deflated by 12% in 2023 and 32% in 2024. Looking ahead, suppliers anticipate that fertiliser prices will rise in the early part of 2025. Renewed volatility and significant price increases on natural gas may increase the cost of chemical nitrogen fertilisers in particular, as seen in 2021 and 2022.

Packaging costs for the field vegetable sector has inflated by an average of 1.2%, since January 2024 with some increases on products such as plastic film and pallet wrap.

Energy in the field vegetable sector is made up primarily of green diesel and electricity which have remained relatively stable (2% increase) since January 2024, despite excise duty restoration on green diesel by government during the year.

The revocation of many important plant protection products is putting field vegetable growers under immense pressure to control pests, diseases and weeds. Loss of effective products make the

maintenance of high quality to meet market specifications and retaining a sustainable yield to ensure profitability extremely challenging and ultimately lead to uncertainty if the necessary tools will be available in the future to protect yields. The cost of plant protection products since January 2024 has remained relatively stable (+1.5%) with some increase in cost of branded or speciality products. These products are often required due to the limited range of approved products in the sector, especially on specialised crops. Vegetable growers supplying overwintered carrots are impacted by the straw shortages in the agriculture sector in 2024. Shortages are primarily due to reduced area of wheat sown in autumn 2023/spring 2024, poor growing conditions leading to reduced yields and tillage farmers opting to cultivate straw back into the soil as part of the Straw Incorporation Measure.

The cost of land rental has inflated on average a further 7%, although there is variation depending on crop type and geographical location. Competition for land for use in the dairy sector, housing development, renewable energy, as well as other vegetable production, has resulted in stark increases averaging between 42% - 54% since March 2022. Additionally, the need to travel further for suitable land for vegetable cultivation is reported as leading to additional costs in fuel and reduced labour efficiency.

The cost of seed has increased on average by 7% but ranging from 3% - 10% depending on crop and variety type. Increased cost of producing seed, difficult growing conditions leading to reduced seed yields and demand for disease resistant/tolerant varieties are contributing to the increase in cost. Vegetable plant propagation, required for most brassicas, some salad and allium crops, is usually carried out by a third parties due to specialised facilities and skills required is reported as increasing by an average of 7.5% - 8%. Depending on the crop, seed and plant propagation makes up between 7% - 14% of the cost of production whereas, seed makes up approximately 4.5 - 7% of the cost for direct drilled crops such as carrots, parsnips or onions.

Organic vegetables

Organic vegetable production ranges from highly mechanised field-scale systems with fewer crops, to labour intensive market gardens growing a wide range of crops. Costs vary considerably depending on scale of production, type of crop(s), rotation, owned or rented land, level of mechanisation and equipment, the impact of weather and route to market.

Labour comprises a significant portion of organic vegetable production and post-harvest costs. For 2024, we have some information **that labour has increased 9%, making up 57% of variable costs**, but we acknowledge that our sample size is small.

Similar to conventional vegetable production, cost and availability of suitable land for vegetable production is a major challenge for organic vegetable growers. It is becoming increasingly difficult to source suitable certified organic land and/or land for conversion, which typically takes two years in order to sell produce on the market as organic. This is a significant challenge to scaling-up organic vegetable production. Growers are travelling greater distances from packing facilities to secure land and that is resulting in increased costs.

Nursery Stock & Ornamental Sector

There a number of distinct subsectors of the ornamental sector: young plant propagation, containerised nursery stock, field production of trees, protected production of bedding and pot plants, hedging and cut foliage. Each sector has a different profile of input material and labour. Growers may overlap one or more sub sector resulting in a spread of prices. Nursery stock businesses continue to invest in labour saving modernisation and automation to similar levels as continental growers though scale is slower to increase. **We estimate that the broad sectoral inputs have increased by 4.2%.**

Labour

The vast majority of nurseries interviewed do not employ at the minimum wage and thus have not been forced to increase their pay offer, however most have honoured the increase rate at National Minimum Wage across all pay grades **with an average 7.5% wage increase** following an additional 10% in 2023. Labour supply has not improved in recent years and remains scarce, it is a limiting factor in the expansion of crop production for many businesses. As wages have increased continuously in recent years the relative weighting/impact on their input has increased. Some growers report labour costs making up to 50% of their input cost. Due to the mostly seasonal nature of their sectors the General Employment Permit scheme is not currently widely used within this sub-sector.

Packaging

Plastic pots, bedding packs, trays, cardboard and label pricing varies depending on source material. Similar to 2023 prices have fallen by about 1% or remained static. Use of more easily recyclable plastic materials is now well embedded in the production of plants and has become the standard practice. These plastics remain a more expensive option than traditional black polystyrene.

Fertiliser

The sector uses a combination for different formations for specific functions; resin coated slow release fertiliser for container plant production, soluble fertiliser for protected crops and mostly straight and compound fertilisers and lime for field production. After substantial fertiliser cost rises in 2022 and 2023 costs have slowed in the sector in the last year. **Leading brands of speciality resin coated controlled release fertiliser have increased in cost by 8%.** The cost of speciality liquid feed shows some small increases since 2024.

Plant protection products

This sector includes biological control agents, bio traps, bio pesticides, weed control, fungicides and pest control. Limited changes have been seen in this input range with many categories remaining static or a slight increase of 1%. Some niche biological control lines have deceased in cost by 25% but have a narrow use base.

Energy

Energy costs have moved in line with other sectors. SEAI report Electrical costs in Band IA: <20MWh per annum to have decreased by 6% however Band IB: >=20 < 500 MWh per annum have increased by a little over 1% and Band IC: >=500 < 2000 MWh per annum decreased by 0.7%

A small number of growers have heated glass and are using biomass in the form of woodchip or

pellets for base heat with top up from gas. SEAI have recorded that costs of Fuel Chips (35% moisture) increased by 24.4% in the 12 months from Jan 1st 2024. It is reported by SEAI that bulk pellets have decreased in price by 20.7% (approx. €285/tonne), though growers have not seen this level of reduction when cost of delivery is included. Few ornamental plant growers have received HEPS supports, as most were early adopters to biomass/woodchip switching from gas.

Growing media

The last 12 months has seen costs stabilise for some suppliers but others have increased costs by 3% per m^3. Security of supply may be one reason inflation in this sector has slowed after years of double digit growth. The cost of coir, a constituent of peat free media sourced from Sri Lanka and India, increased in early 2024 due to the Gulf of Aden attacks on shipping. Cost of growing media per m^3 can be in excess of €70.

Other

Transport

Transport of plants varies depending on product: curtain sided truck for trees, pallets/pallet boxes for whips and bare root hedging, Danish trollies for pot and young plant material. Costs for dedicated transport of Danish trollies in the sector have remained high in the last 12 months. In regards to **International transport**, in general growers report an increase in transport since last year of about 10%. Storm damage to Holyhead port had a significant impact on transport costs and delays. A fuel surcharge of 40% was charged by one transport company who had regular plant shipments diverted.

Phytosanitary and customs control introduced between EU and GB trade post Brexit did not ease during 2024.The main export of plants from Ireland is to GB, where customs and administration fees were introduced in 2022 as well SPS (Sanitary and Phyto-Sanitary certification) add to the cost of business. Some Irish grower who were exporting to GB prior to Brexit left this market due to increased transport costs and admin have not returned to the market.

Young plant material

There are three major inputs for producing young plants: labour, pots and growing media. Labour has increased as outlined by approximately 10% in this area where other costs have remained stable. Whips/hedging plants remained stable during 2024 following increased cost every year since 2020. There has been no decrease in spite of the link of cost for bedding to energy prices for heating glasshouses etc.

Sundries

Items such as bamboo canes have increased in price by 25% in the last 12 months though others such as mulch, mypex, pot toppers, ties etc have remained static.

Cut flowers and foliage 2024 report

The €10m industry is predominantly made up of daffodils primarily for the domestic market and cut stems of greenery (Eucalyptus, Pittosporum & Laurel) where up to 80% is exported to UK and Holland. In common with other horticultural enterprises, the pattern of changes in input costs are broadly similar, however the grower businesses involved are set to seriously feel the impact of the

sizable increase in labour cost in particular given its importance in overall costs of production which can be up to 60% on some of these highly specialised farms. This is significantly higher than most other sectors given that all harvesting and processing is done by hand. Transport and materials account for approximately 22% of the cost.

Whilst the increase in production costs coupled with the cost of living inflation over the past 2 years has impacted demand in the domestic market, it is the important export market to the UK and Europe that has really suffered. Factors that negatively impact on this volatile, cyclical business include the continued economic issues in the UK and wider Europe, the increased cost of phyto-sanitary regulation particularly for export of some products into the UK and competition from unregulated cheap 'wild' product from third countries. The continuous downward pressure on product price is a real worry for key players in the industry, a situation that is likely to worsen before it improves.

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