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Bia agus Mara
Department of Agriculture,
Food and the Marine



National Strategy for Sustainable Operational Programmes

2017-2022

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PRODUCER ORGANISATIONS IN THE FRUIT AND VEGETABLES SECTOR

NATIONAL STRATEGY FOR SUSTAINABLE OPERATIONAL PROGRAMMES October 2017-December 2022

Regulation (EU) No 1308/2013 of the European Parliament and of the Council

Commission Delegated Regulation (EU) 2017/891

and

Commission Implementing Regulation (EU) 2017/892



The overall objective of the National Strategy is to improve competitiveness of the fruit and vegetable sector and increase sustainability of production.

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1. A 5 Year Strategy



Vision Statement

The overall objective of the National Strategy is to establish the priorities through which improving the competitiveness of the fruit and vegetable sector and increasing sustainability of production can be achieved.

Production of fruit and vegetables is a significant entity within the overall agricultural industry, making an important economic contribution in terms of supplying the domestic market, employment and foreign trade. Producers have constantly strived to invest and

harness innovation to maintain a competitive advantage and supply products which are of the highest quality. Within this context Producer Organisations (PO) have provided an important mechanism for producers to achieve a more sustainable balance in the supply chain through collaboration and enhancing bargaining power by becoming part of a larger supply base.

POs have a key role to play in improving competitiveness, enhancing market development and improving grower returns through innovation.

Therefore, a core priority is to increase the participation of POs in delivering on the targets set out in the strategy for the fruit and vegetable sector.

The priorities set out in the 5 year strategy for improved competitiveness, market development and innovation have been informed by industry stakeholders and are focused on delivering sustainability of production and assisting the sector to take advantage of new opportunities and develop new offerings that fit with lifestyle choices that prioritise convenience and well being.

The impact of Brexit represents a significant challenge for the sector, the priorities and changes to the National Strategy will help support the sector in responding to this challenge.

Food Wise 2025 implemented in 2015 sets out a ten year plan for the agri-food sector. It underlines the sector's unique and special position within the Irish economy, and it illustrates the potential which exists for this sector to grow. For the horticulture sector in Ireland, Foodwise 2025 has set out ambitious targets. Developing and increasing participation in Producer Organisations offers a practical way in which the aspirations for growth can be made tangible and the sector supported as it strives for new levels of success.



The impact of Brexit represents a significant challenge for the sector, the priorities and changes to the National Strategy will help support the sector in responding to this challenge.

Background to the Scheme

There are currently two Producer Organisations (POs) operating under the EU Scheme for Fruit and Vegetables in Ireland representing approximately 30% of the total farm gate output of the Horticultural sector (excluding potatoes). Producer Organisations (POs) became the cornerstone of the EU regime for the fruit and vegetables sector since 1997. The purpose of the scheme is to encourage producers of fruit and vegetables to set up an organisation to jointly market their production in order to strengthen the position of producers in the marketplace. The measures in the EU fruit and vegetables regime are intended to increase market orientation among EU growers, encourage innovation, promote fruit and vegetables, increase growers' competitiveness and improve marketing, product quality and the environmental aspects of production, through the provision of support to POs, APOs (Associations of POs) and inter-branch organisations.

Since 2007 Member States were required to establish a national strategy for sustainable operational programmes, integrating a specific environmental framework, which would assist in assessing the progress made towards achieving the objectives set for the operational programmes, as well as the efficiency and effectiveness in relation to those objectives. POs were required to include a minimum level of spending on environmental actions, and/or undertake a minimum number of environmental actions in their operational programmes.

This National Strategy is the framework that lays down the direction and scope of the Operational Programmes to be presented by producer organisations in the fruit and vegetable sector.

Legal Basis

This strategy, which has been drawn up in accordance with Article 36 of Commission Regulation (EC) No. 1308/2013, will apply to approved operational programmes implemented by recognised producer organisations and commencing on 1 January 2018.

The National Strategy for Sustainable Operational Programmes October 2017-December 2022 has been amended to remove actions that Ireland no longer wishes to fund under the Framework for Environmental Actions and to take account of Regulation (EU) No 1308/2013 of the European Parliament and of Commission Delegated Regulation (EU) 2017/891, and Commission Implementing Regulation (EU) 2017/892.

The strategy will apply to operational programmes modified as per Article 80(1)(b) of the Delegated Regulation 2017/891 from the 1st October 2017 and new operational programmes commencing on 1 January 2018.

The strategy may be amended in particular in light of monitoring and evaluation; amendment of the Strategy may include deletion of some actions which were previously eligible for EU funding.

Amendments will be made before the submission of draft operational programmes in any given year.



2. Irish Fruit and Vegetable Production



2.1. Analysis of the current situation

Production of fruit and vegetables is a significant entity within the overall agricultural industry, making an important economic contribution in terms of supplying the domestic market, employment and foreign trade. The value of farm gate output from the sector in 2016 stood at €284m, this represented a marginal increase of 0.5% on 2015.

Ireland's production of fruit and vegetables is dominated by the mushroom sector which represents 43% (€121.7m) of the total output from the sector.

Protected food crops are the second largest output with 27% and field vegetables with 26% and outdoor fruit with 4%.

The fruit and vegetable sector is specialised in a number of regions based on climatic and soil suitability. This extensive production base is channelled through sophisticated supply chains for retail, service and export markets. The industry feeds through a series of prepack, wholesale, preparation and processing links before the end customer uses the final products. The sector is labour intensive when compared to other agricultural sectors. This indigenous industry employs approximately 3,750 people.

The market in Ireland is dominated by 5 retail multiples who account for 88% of the trade in fresh fruit and vegetables and who prefer to be supplied by a small number of sources. This pressure, coupled with ever-increasing input costs, in particular the costs of energy and labour, has resulted in many producers leaving the sector.



Sector	Quantity 2016 Tonnes, 000	Value 2016 €m
Mushrooms	70	121.7
Field vegetables	186	73.4
Protected Food Crops	446	77.8
Outdoor Fruit Crops	45	11.1
TOTAL	747	284

2



The market has also become increasingly international and competitive, and ongoing development of the fruit and vegetable sector is dependent on its ability to maintain and extend competitive advantage in this environment. Due to climate, lower energy and labour costs, other countries often have a competitive advantage over Ireland in terms of horticultural production. While production costs are higher for certain crops in Ireland growers are continually investing in equipment and technology to minimise these costs and to maximise the value of their output.

The impact of the UK referendum to leave the EU and resultant currency volatility presented an unprecedented challenge in particular for the mushroom sector where approx. 87% of production is exported to the UK. However the sector has demonstrated resilience through its collective collaboration within a producer organisation.

Crops / producers	2007	2016
Mushrooms	85	48
Field vegetables	238	165
Protected food crops	137	137
Outdoor fruit crops	100	50

Source: DAFM estimates







Sectoral briefs



2.1.1 THE SUB-SECTORS

2.1.1 (a) MUSHROOMS

MUSHROOM SECTOR SWOT ANALYSIS

Strengths

- Strong PO representation
- ROI mushrooms currently hold 50% of UK retail market
- Closeness to the UK market
- Produce grown to quality assurance standards
- Highly specialised and expert grower base

Weaknesses

- Limited investment in sectoral research, development and innovation
- Reliance on UK market
- Labour recruitment and retention
- Lack of product branding

Opportunities

- A growing convenience and food service market
- Lean technologies and processes can play an important role in helping to address competitiveness
- Adding value through innovation and product development
- Brand creation to better identify Irish produce
- Health benefits / lifestyle trends

Threats

- Retailer power
- Price volatility/Lack of profitability
- Foreign Exchange volatility
- Impact of Brexit
- Possible nationalisation of UK market
- Loss of industry expertise



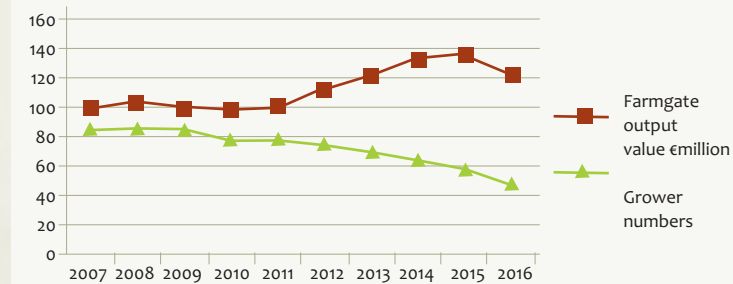
In Ireland mushrooms are the largest subsector within the fruit and vegetable sector; its farm gate value of €121.7million in 2016 represented 43% of the total value of fruit and vegetable sector. Ireland is totally self-sufficient in mushrooms, with only small quantities of exotic types imported. Over recent years grower numbers have been declining, however the value of output at farm level has been increasing in large part due to the switch from phase II to phase III compost production and greater efficiencies on farm.

These developments have helped reduce production costs through higher productivity per tonne of compost and shorter growing cycles in the production units and improved efficiency at farm level.

Mushroom price drops, currency fluctuation, higher labour cost and the need for capital investment has contributed to the rationalisation and consolidation of the industry. However despite the decline in mushroom grower numbers, the mushroom sector has benefited strongly from participation in the EU's Producer Organisation Scheme assisting growers to consolidate and innovate and giving it scale to compete in a competitive export market place.

As with many horticultural crops, advances in science and plant genetics offers the potential for new products and production methods. In particular the recently completed genome sequencing of mushrooms offers the potential for further agronomic improvement and the opportunity to expand the mushroom product portfolio. Investment in research and innovation will be critical to exploit these advances which will drive growth and opportunities for the sector.

Mushroom sector farmgate output value vs Grower numbers





2.1.1 THE SUB-SECTORS

2.1.1 (b) PROTECTED FRUIT AND VEGETABLE CROPS

PROTECTED FRUIT AND VEGETABLE SECTOR SWOT ANALYSIS

Strengths

- Strong PO representation
- Produce grown to quality assurance standards
- Quality fresh produce for home market
- Highly specialised and expert grower base
- Strong investment in sector

Weaknesses

- Seasonality of production
- High cost base and labour intensive
- Lack of product branding
- Limited investment in sectoral research, development and innovation

Opportunities

- A growing convenience and food service market
- Lean technologies and processes can play an important role in helping to address competitiveness
- Adding value through innovation and product development
- Brand creation to better identify Irish produce
- Health benefits / lifestyle trends

Threats

- Retailer power
- Price volatility/Lack of profitability
- Seasonal low cost of imports
- Energy cost
- Loss of industry expertise

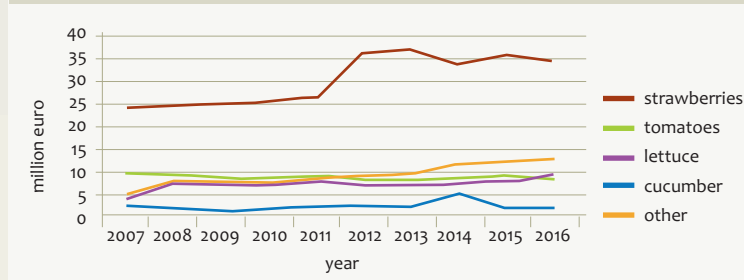


In 2016, the farm gate value of Irish protected crops amounted to €67m from a production area of 400ha. The overall trend is towards fewer growers but increasing production value. This sector has continued to show very good growth, led by the expansion in strawberry production from outdoors to protected structures. This has helped extend the growing season and allowed producers to capitalise on an increasing demand by consumers for fresh Irish grown soft fruit. Soft fruit has a wide variety of uses, appeals to all age groups, and can be consumed at all meal occasions.

Strawberries account for over 50% of output value of the protected crop sector. Tomato and lettuce production accounts for 12.5% and 13.5% of the total output value of the sector respectively. The trend for these crops is towards diversification into profitable niches such as vine tomatoes and gem lettuce. While the success of the strawberry segment is due to the use of new technology under glass and more efficient growing tunnels, for other segments of the sector, energy costs exert significant pressure on margins.

The common issues cited by growers affecting development of the sector are seasonal low cost imports and the dominance of retail multiples. Ireland has a successful protected vegetable PO, which has helped growers of this PO to consolidate and achieve a more sustainable balance in the supply chain through collaboration and enhancing bargaining power through by becoming part of a larger supply.

Protected crop sector value farmgate output



The overall dynamic has been one of an increasing production value for protected soft fruit and a static production value for protected vegetables. The key trend in the soft fruit sector is increasing production value of soft fruit grown under protection driven by strong consumer demand for soft fruit, with further growth likely as growers extend the season and possibilities for limited export potential. The trend in the protected vegetables is a move towards profitable niche products with opportunities for growth through a growing interest in healthy eating and for locally produced produce and the potential for in season import substitution.

The challenge for the sector will be to exploit the changing lifestyle trend among consumers where food provenance and healthy eating are growing considerations for the consumer. Investment in research and innovation based on consumer insights will be critical to improve the success rate of translating research outputs into commercial products for the domestic market.

The challenge for the sector will be to exploit the changing lifestyle trend among consumers where food provenance and healthy eating are growing considerations for the consumer.





2.1.1 THE SUB-SECTORS

2.1.1(c) FIELD VEGETABLES

FIELD VEGETABLE SECTOR SWOT ANALYSIS

Strengths

- Produce grown to quality assurance standards
- Quality fresh produce for home market
- Highly specialised and expert grower base
- Strong investment in sector

Weaknesses

- No PO participation
- Seasonality of production
- High cost base and labour intensive
- Lack of product branding
- Limited investment in sectoral research, development and innovation

Opportunities

- Potential for PO participation
- A growing convenience and food service market
- Lean technologies and processes can play an important role in helping to address competitiveness
- Adding value through innovation and product development
- Brand creation to better identify Irish produce

Threats

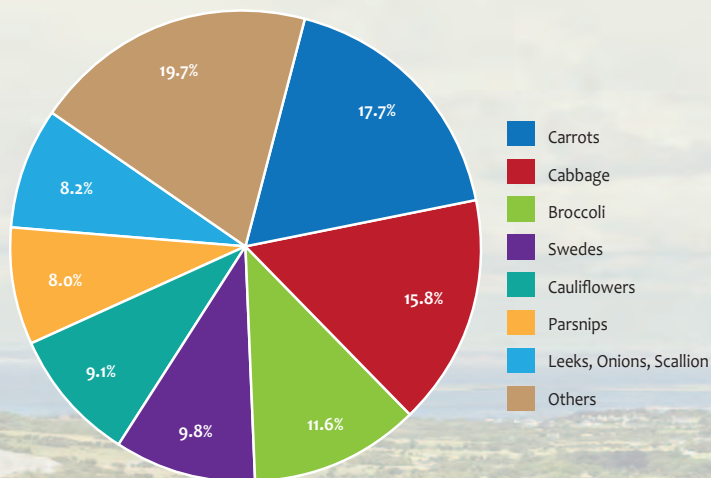
- Retailer power
- Price volatility/Lack of profitability
- Seasonal low cost of imports
- Energy cost
- Loss of industry expertise



The estimated farm gate value of fresh field vegetables produced in Ireland was €73.4m in 2016. In terms of output value and production area the most important crop is carrots followed by cabbage, swedes, broccoli and parsnips. The domestic retail and food service markets are the most important markets for field vegetable produce. Production is sold mainly as fresh produce with 60% of output (top 8 crops) sold directly to the retail multiples (e.g. Dunnes, Tesco, Musgrave, Lidl, Aldi) and 21% is sold to wholesalers. Seven percent (7%) is sold at farmshops/farmers markets, 7% to the prepared vegetable sector, 6% to greengrocers and 1% is sold directly to the catering sector.

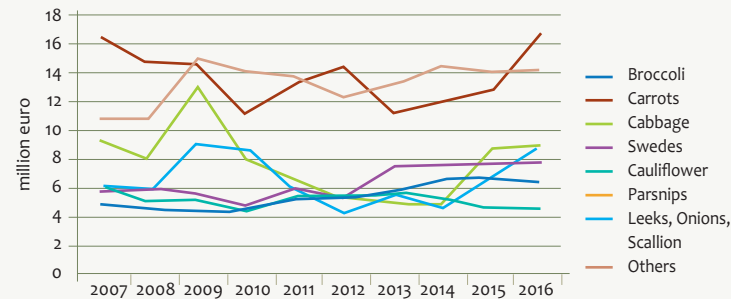
The 2014 field census report shows that large scale producers represent a significant, and growing, proportion of the total production area. The largest 50 growers (in terms of area) account for 84% of the total field vegetable production area in 2014, up from 74% in 2008.

Field Vegetables Production Area 2016



Total area in 2016: 4539ha

Field Vegetables Farmgate value of output



Field vegetable production is concentrated in Leinster. Dublin County has by far the highest production area with 1,847 hectares, followed by Meath (579 hectares) and Wexford (347 hectares). Counties in Leinster account for 87% of overall national production area (up from 83% in 2008). This increase may be related to grower proximity to market consolidators/central distribution centres. (Source: Field Veg Census 2014).

The viability of the sector is a major issue due to the constant downward pressure on producer prices due to challenging pricing and competition from imports. Growers cite price returns, input costs, trading practices of multiples/discounters and competition from low cost imports as the key issues affecting development of their businesses. The highly competitive retail environment for fresh vegetables is considered a key factor influencing grower returns. Whilst imports are largely when seasonal conditions do not allow for local supply, there is potential scope for in-season import substitution. There are potential opportunities for the sector to exploit as a result of changing lifestyle trends, such as a growing convenience and food service sector, an increasing desire among consumers for fresh Irish produce and a growing interest among young people for healthy eating, offers potential opportunities for the sector going forward.



2.1.1 THE SUB-SECTORS

2.1.1(d). OUTDOOR FRUITS

OUTDOOR FRUITS SWOT ANALYSIS

Strengths

- Produce grown to quality assurance standards
- Quality fresh produce for home market
- Highly specialised and expert grower base
- Strong investment in sector

Weaknesses

- No PO participation
- Seasonality of production
- High cost base and labour intensive
- Lack of product branding
- Limited investment in sectoral research, development and innovation

Opportunities

- Potential for PO participation
- A growing convenience and food service market
- Lean technologies and processes can play an important role in helping to address competitiveness
- Adding value through innovation and product development
- Brand creation to better identify Irish produce

Threats

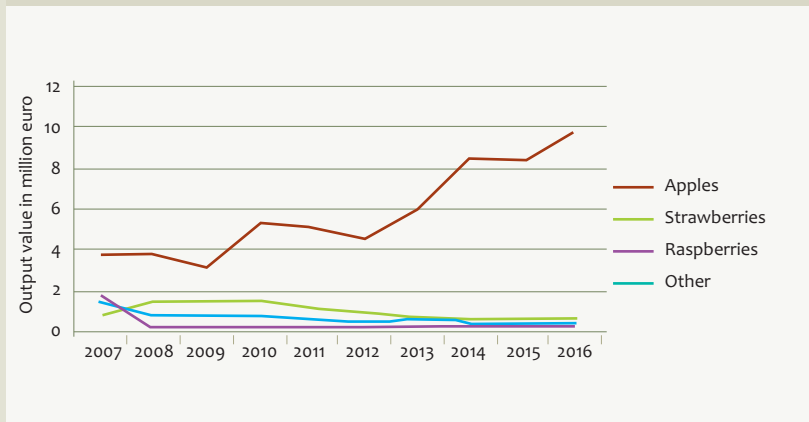
- Retailer power
- Price volatility/Lack of profitability
- Seasonal low cost of imports
- Energy cost
- Loss of industry expertise





The output value of outdoor fruits was €11 million in 2016. The sector is small however it has increased in value driven by the increased production of apples for juicing and cider. Key challenges for the apple sector are dominated by cost and profitability issues (e.g. establishment costs, time before return on investment, low cost imports and labour costs) in addition to currency volatility and variations in our climate which has had a tendency in certain years to affect overall production and quality. Many apple producers, and especially culinary apple producers add value to their apples by juicing them on-farm, in addition there are a small but growing number of producers producing craft cider which has the potential to increase demand for Irish grown apples over time given the higher apple concentration over more conventional ciders.

Outdoor soft fruit/top fruit output value



There is a growing number of producers producing craft cider which has the potential to increase demand for Irish grown apples over time given the higher apple concentration over more conventional ciders.



2.1.2. ENVIRONMENTAL EFFECTS OF FRUIT AND VEGETABLE PRODUCTION

The land area of Ireland is 6.9 million hectares of which 4.5 million hectares or about 65% is used for agriculture, of which Horticulture represents less than 1% consisting of approx 6000ha. The area under production of fruit and vegetables has remained relatively static over the last few years and the different crops continue to be produced in what have been traditional areas. Growers are paying increasing attention to the environmental impact of their activities and are making investments to ameliorate the negative impact particularly in relation to energy and pesticide usage protecting soil structure and disposal of waste.

Approx. 60% of the value of Irish horticulture output (excluding potatoes) is dependent on peat as a growth medium with 2.6 million cubic metres of peat extracted on an annual basis for the sector. The challenge will be to find suitable alternatives to peat as a growing medium and/or the recycling and reuse of peat particularly in the mushroom sector. The potential contribution of peatlands management to climate change mitigation is being explored and a move towards a cleaner, more carbon efficient economy means reducing dependency on peat as a source of fuel and horticultural compost will have to be fully explored.

Disposal of spent mushroom compost (SMC) is an ongoing issue for the mushroom sector. Efforts to explore different options in dealing with SMC in a way that minimises its impact in the environment will be needed going forward. The circular economy and particularly the bio economy (comprises those parts of the economy that use renewable biological resources from land and sea to produce food, feed, biomaterials, chemicals, pulp and paper, energy and fuels) can provide opportunities for residues and valorisation of waste from crops to produce heat and or power through combustion or anaerobic digestion.

Field vegetables continue to be produced in the traditional production areas. There has been little or no expansion in this area. Growers are investing in processes to minimise the effects on the environment, particularly with regard to soil protection, fertiliser and pesticide application through the use of precision farming technologies.

The switch from field grown strawberries to strawberries grown under protection, many of which are grown in self contained units rather than in soil, has allowed the introduction of water capture and reuse systems.

The environmental situation is assessed further in Section 1 of Annex A.

2.1.3. POTENTIAL FOR DEVELOPMENT

Consumption of fruit and vegetables in Ireland has been very low. The Department of Health now recommends approximately seven portions of fruit and vegetables a day based on an average weight of 80g per portion. This recommendation increases daily consumption from the previous ‘five-a-day’ message. There is a high degree of awareness among consumers of the recommendation to eat five portions of fruit and vegetables per day but only 36% of people do so. The sector can benefit in practical terms from educating consumers on the health benefits of eating fruit and vegetables. With increasing awareness of the dangers of childhood obesity and with more sophisticated lifestyles, people are ready to take this message on board. The Irish population is also expanding with the total population in April 2016 at 4,761,865 – an increase of 3.8% compared with the previous census in 2011. The horticulture industry has therefore a growing market and one that demands diversity.

Investment in Research and Development. There has been limited investment to date by the sector in research and development; changing lifestyles mean consumers now demand convenient and healthy products with enhanced nutritional or dietary capabilities. Technology and advances in areas such as nutritionally enhanced products and plant genetics, which offer the potential for new products, new production methods and new approaches to the market for fruit and vegetables products which will drive growth and opportunities for the sector. There is a need to assist commercialisation and adoption of developing horticultural technology, through investment in research and development to facilitate growers to take advantage of the opportunities arising from these emerging technologies.



Lean technologies. The introduction and implementation of lean technologies and processes will play an important role in helping to address the competitiveness issues along the value chain by building the capability of people to identify problems and improve their operations.

Consumer awareness of the benefits of locally grown fresh produce is growing. The bulk of Irish fruit and vegetable production is sold fresh and the range, quality and presentation of Irish produce has improved significantly and it is capable of satisfying the most discerning consumers. Consumers are becoming increasingly aware of the global concerns about climate change. This combination promises an increase in market share for locally grown produce.

Openings for new products. The increase in strawberry production through the adoption of new technology has shown the potential for increases in other crops such as raspberries and blueberries. Increasing travel abroad may well result in products that have previously been regarded as exotic becoming more mainstream. Increasing oil prices over time will likely alter the economics of shipping fresh food over long distances and may promote an increase in Irish production of crops such as peppers, herbs and salad crops.

Organic production: The organic sector in Ireland is still very small in relation to agriculture as a whole. In 2016 there were just over 30 organic producers of fruit and vegetables in all sectors in Ireland with just under 200 hectares of land under organic fruit and vegetable production methods. There is an opportunity for growth in this area. Currently there is a large proportion of imported organic fruit and vegetables sold in Ireland and while some of the produce such as citrus will always be imported, there is still a significant opportunity for expansion in organic production. Unlike many sectors of horticulture where the trend is towards consolidation, organic production is better suited to small-scale production. Organic production is ideally suited to POs.

More dynamic marketing measures. There is potential for increasing market share through promotion, marketing, innovation and new product development. Concentration of these functions in POs will allow producers concentrate on their core business.

Positive effects of consolidation and grower integration. The trend towards increasing consolidation and specialisation should increase the competitiveness of the sector through economies of scale. Larger production

units should allow for an increase in labour productivity through investment in mechanisation in what has traditionally been a labour intensive industry. The sharing and collaboration of best practices offers the potential to increase on farm efficiency and improve the overall viability of growers and help achieve a more sustainable balance in the supply chain.

2.2.1 PRIORITY NEEDS OF THE SECTOR/ STRATEGIES TO ADDRESS THOSE NEEDS

PRIORITY NEEDS

Greater participation in POs will be encouraged. POs are an important mechanism for growers to achieve greater bargaining power in the marketplace by becoming part of a larger supply base.

To improve competitiveness
To improve market development
To improve returns through innovation

STRATEGIES

To improve competitiveness

POs will be encouraged to increase productivity and address competitiveness through the implementation of lean technologies and processes and building the capability of people to identify problems and improve their operations, in what has traditionally been an industry with high labour input, and to promote sustainability of production through improved working conditions.

POs will be encouraged to invest in the best technical advice to optimise production inputs and improve competitiveness, to boost the commercial value of production and to extend the growing season.

At producer level, profitability and viability will be driven by productivity improvements through the adoption and application of cutting-edge sustainable processes and technologies. Therefore, POs will be encouraged to invest in the development of new technologies that create more sustainable production systems, which must be a cornerstone of achieving future growth at primary production level.

To improve market development

To fulfil the diverse demands of markets, POs must better understand the specific needs and requirements of consumers in specific markets. With this in mind, it is essential that market and product development is driven by a focus on consumer insights and consumer needs.

POs will be encouraged to work with retailers to develop the market for fruit and vegetables, thus raising the level of consumption of the products and the margins available to producers.

POs will be encouraged to engage in the promotion of fruit and vegetables as part of a healthy lifestyle - to increase consumer awareness and help increase consumption.

The development of PO brands will be encouraged. Recognisable brands would allow the POs to differentiate and promote the unique qualities of their products, thus creating consumer demand for their specific product rather than for fruit and vegetables as a commodity.

POs will be encouraged to generate demand for local seasonal produce. Consumers generally have a preference for locally grown fresh produce and it is important that the high-quality attributes of Irish produce are adequately promoted and clearly presented to consumers.

POs will be encouraged to move up the value chain by developing branded products with some added value and to adapt production lines to changing lifestyles.

POs will be encouraged to undertake environmental measures that will reduce the carbon footprint – particularly more efficient and alternative energy use. This in turn could be used as a promotional tool for consumers concerned about climate change.

To improve returns through innovation

There is a need to assist commercialisation and adoption of developing horticultural technology, to facilitate growers to take advantage of the opportunities arising from emerging technologies. To build resilience within the industry POs will be encouraged to invest in research, development and innovation to build on current advances and explore new technologies in production, product and packaging, data analysis as well as sustainable environmental technologies in areas such as Integrated Pest Management (IPM), renewable energy and valorisation of waste.

2.2.2. BASELINE INDICATORS FOR NATIONAL STRATEGY

DAFM's objective is to grow the number of POs and their membership over the 5 years of this strategy. The baseline data are from 2016

Indicator	Baseline 2016	Target 2021
Number of POs	2	4
Number of mushroom producers who were active members of POs	45	45
Tonnage of mushrooms marketed by POs	79,018 tonnes	87,000 tonnes*
VMP of mushroom POs	€195m	€215m*
Number of fruit and vegetable producers who were active members of POs (excluding mushrooms)	6	15
VMP of fruit and vegetable POs	€8m	€16m
Area of protected crops of POs	34.5 ha	34.5 ha
Area of field crops of POs	0ha	150ha

* With some PO production located in the UK, this target may be impacted by Brexit



3. Objectives of Operational Programmes



To address the priority needs of the sector, all operational programmes must have two or more of the following objectives.

Planning of production, including production and consumption forecasting and follow-up

- Planning of production
- to ensure reliability of supply and underpin supply contracts, thus strengthening the relationship between supplier and buyer
- to avail of opportunities arising to increase market share, minimise waste and optimise production costs.
- Matching supply to demand to maximise gains from seasonal variations in price.

Improvement of product quality, whether in a fresh or processed form

- Improving quality through stringent controls at PO level to enhance the image and reputation of the PO produce with both market outlets and consumers.

- Concentrating controls to enable producers to meet the high demands of the quality assurance schemes of the major multiples and to minimise the costs of meeting those demands. Also, to allow for improved working conditions and hygiene standards above the minimum requirements.
- Giving feedback to members from the quality controls to reduce percentages of rejected produce and to increase their market returns.
- Research and development on new varieties and technologies with the aim of improving yield, quality, taste and storability.
- Implementing programmes of residue and contaminant testing over and above statutory requirements to guarantee the best possible food safety standards and achieve a marketing advantage.



3

Boosting the commercial value of products

- Enhancing commercial value to cover rising input costs and to improve viability. Market research and analysis of consumer demands leading to the development of new product lines to expand the market.

Promotion of the products, whether in a fresh or processed form

- Raising awareness of the benefits of increased fruit and vegetable consumption to stimulate consumption and increase demand for the POs produce.
- Establishing a PO brand identity to increase consumer demand for PO produce in the supermarkets.

Environmental measures, particularly those relating to water, and methods of production respecting the environment, including organic farming

- Building public trust in quality, safe production that does not damage the environment.
- Reducing input use, such as energy and plant protection products.
- Minimising waste production and waste disposal costs.

Crisis prevention and management

To assist growers deal with market volatility, the following measures are eligible under crisis prevention and management:

- Investments aimed at making the management of volumes placed on the market more efficient. Eligible investments will require justification that the proposed investment is suitable to effectively prevent or better withstand a crisis.
- Training measures and exchange of best practice.

All other measures listed under subparagraph (3) of Article 33 of Regulation 1308/2013 shall not apply.

The types of measures and actions eligible for support for the achievement of these objectives and the performance indicators that will allow progress to be assessed are set out in Section 3.2.

3.1 CONDITIONS APPLYING TO PROGRAMMES

Balance between programme measures:

In accordance with Article 33 (1) of Regulation (EU) No 1308/2013 of the European Parliament and of the Council, operational programmes shall have 2 of the objectives listed under point 3 above or at least 2 of the objectives referred to in point (c) of Article 152(1) of the same Regulation.

In accordance with Article 33(5) of Regulation (EU) No 1308/2013, it is a requirement that

- (a) operational programmes include two or more environmental actions; or
- (b) at least 10% of the expenditure under operational programmes covers environmental actions.

In accordance with Article 27(5) of Commission Delegated Regulation (EU) 2017/891, Member States shall set out in the national strategy the maximum percentages of the operational fund which may be spent on any individual measure or type of action in order to ensure a balance between different measures. Ireland has set the following limits:

- POs will be required to include a minimum of 4 measures in their operational programme and no measure shall comprise more than 50% of the expenditure under the operational fund (excluding administration costs).
- In accordance with Article 33(3) of Regulation 1308/2013, crisis prevention and management measures shall not comprise more than one third of the expenditure under the operational programme.

Duplicate funding: Actions must not be included in operational programmes if they are supported by other EU aid or by State aid, including schemes under **Ireland's Rural Development Programme 2014-2020**. Items of capital investment must not be included in the operational programme if an application for grant aid has been made or grant aid has been received in respect of the same items under the Scheme of Investment Aid for the Development of the Commercial Horticulture Sector or under similar schemes either in Ireland or in other Member States by either the PO or by a member of the PO. Payments to PO members for agri-



environment commitments must not be included in the operational programme if the members of the PO have applied for similar aid under the Agri-Environment Options Scheme (AEOS) or under Green Low carbon Agri-environment Scheme (GLAS). POs will be required to certify that neither they nor their members have applied for or received any other aid. In addition, claims for actions involving capital investment, agri-environment commitments or organic production will be checked against records of other Schemes and discovery of an application for duplicate funding by any PO or member of the PO will result in disallowance of the entire action for the PO involved.

Demarcation between measures under the Rural Development Programme and the Scheme for Producer Organisations: Member States shall ensure that a beneficiary may receive support for a given action only under one scheme. The rules of a producer organisation must include provisions that ensure that no member has benefited from other EU or National schemes for a given action.

To that end, when Member States include measures containing such exceptions in their rural development programmes, they shall ensure that the national strategy as referred to in Article 27 of Commission Delegated Regulation (EU) 2017/891, indicates the criteria and administrative rules which they will apply in the rural development programmes.

Ireland's Rural Development Programme provides for a range of measures including the following:

- Knowledge transfer and information actions
- Advisory services, farm management and farm relief services
- Investments in physical assets (TAMS)
- Basic services and village renewal in rural areas
- Agri-environment-climate actions; GLAS & BDGP
- Organic farming
- Payments to Areas facing Natural or other Specific Constraints (ANC)
- Co-operation support for European Innovation Partnerships (EIP) & support for Collaborative Farming.
- Support for LEADER

Environmental Impact Assessment: In accordance with Article 33(6) of Regulation (EU) No 1308/2013 of the European Parliament and of the Council, actions which increase environmental pressure shall only be permitted in situations where effective safeguards to protect the environment from these pressures are in place. Accordingly, all proposed investment actions which have the capacity to increase environmental pressure must be presented with an environmental impact assessment. Investments with the potential to increase pressures on the environment will not be approved unless the Department is satisfied that the investments respect the objectives set out in Article 174 of the Treaty establishing the European Communities and Decision 1386/2013/EU of the European Parliament and of the Council on a General Union Environment Action Plan to 2020 'Living well, within the means of our planet'

Detailed rules: The terms and conditions of the Scheme of Aid for Producer Organisations in the Fruit and Vegetables Sector sets out the detailed rules for recognition of POs and for operational programmes. The latest version of the terms and conditions is available by emailing poscheme@agriculture.gov.ie

3.2. MEASURES AND ACTIONS THAT MAY BE INCLUDED IN OPERATIONAL PROGRAMMES

This list of actions is non-exhaustive. Proposals from POs for other actions to further their programme objectives will be considered by the Department on a case-by-case basis but must be approved by the Department prior to their implementation by the PO to be eligible for funding.

Article 31 of Commission Delegated Regulation (EU) 2017/891 lays down the eligibility of actions under operational programmes. In addition, Annex III to the Commission Delegated Regulation (EU) 2017/891 provides a non-exhaustive list of actions eligible under the operational programmes.

Annex II to the Commission Delegated Regulation (EU) 2017/891 is a non-exhaustive list of actions and expenditure which are ineligible for funding under the PO scheme.



Annex III to the Commission Delegated Regulation (EU) 2017/891 stipulates that only the specific costs of some actions are eligible for EU funding. In all cases where only the specific costs are eligible for funding, the PO must ensure that conventional costs, savings and additional income received as a result of undertaking the action are not claimed for and that where appropriate any specific income foregone is documented and can be substantiated if the PO is claiming for income foregone.

3.2.1. Planning of production in relation to demand in terms of quality and quantity

Planning, both long term and ongoing, to ensure that all production of all members is marketed and that the market outlets can be serviced with the quantities and qualities required. Eligible actions are

- investments in computers and computer software, centrally and/or on individual holdings;
- programming costs and software licence fees;
- investments aimed at optimising production costs, centrally and/or on individual holdings;
- expenses incurred in relation to co-ordination of production and demand, including personnel costs.

Indicators:

Number of actions undertaken
Number of holdings participating in each action
Total value of investments
Change in the volume of marketed production (tonnes)
Change in the value of total marketed production (€/kg)

3.2.2 Improving or maintaining product quality

Quality assurance checks to meet the demands of the market and reduce the level of rejected product.

Eligible actions are

- investments in climate and environmental controls, centrally and /or on individual holdings;
- investments in pack-houses, handling facilities and market preparation facilities, centrally and/or on individual holdings;
- investments, centrally and/or on individual holdings, including cold storage;
- sampling and analysis of produce for residues of plant protection products, heavy metals and other contaminants;
- sampling of water quality;
- sampling of other inputs for quality control, such as growing media;
- cost of audits and certification for Quality Assurance Schemes;
- personnel whose primary function is to carry out quality assurance checks and give feedback to members that will help them to address quality defects. The implementation of quality measures/actions to improve or maintain a high level of quality shall, essentially, involve the use of qualified personnel, whose primary function is to improve or maintain a high level of quality of the PO's members' production. If, in such cases, the PO uses its own employees or producer members, the time worked shall be documented.
- In accordance with Paragraph 1 of Annex III to Commission Delegated Regulation (EU) 2017/891, only the specific costs of quality improvement measures, i.e., the specific additional cost, calculated as the difference between conventional costs and the costs actually incurred, are eligible. Income foregone is also eligible, provided it is fully documented. Where appropriate, account must also be taken of any cost savings and additional income resulting from the action.

Indicators:

Number of actions undertaken
Number of holdings participating in each action
Total value of investments
Change in volume of marketed production that meets the requirements of a specific quality scheme (tonnes)
Change in value of total marketed production (€/kg)
Estimate impact on production costs (€/kg)



3.2.3 Improving marketing

Marketing of the PO product to increase market share, promote new product lines, negotiate best prices, maximise producer returns, promote PO brands. Eligible marketing activities are

- promotion and communication;
- market research, including production patterns, market dynamics and consumption trends;
- concentration on innovative and value added products to meet consumer demands;
- development and maintenance of PO websites;
- sales development, management of customer relations, category management activities strictly in relation to PO produce, negotiation of price increases and promotion of new product ranges. The implementation of measures/actions to improve the level of marketing shall, essentially, involve the use of qualified personnel, whose primary function is to improve the level of marketing of the production of the PO's members. If, in such cases, the PO uses its own employees or producer members, the time worked shall be documented.
 - development of PO brands
 - membership of Bord Bia Branding Forum;
 - cost of branding consultants;
 - cost of registering trademarks;
 - media campaigns;
 - promotional literature;
 - in-store tastings.

Indicators:

- Number of actions undertaken
- Number of holdings participating in each action
- Total value of investments
- Change in volume of marketed production (tonnes)
- Change in value of total marketed production (€/kg)

3.2.4 Research and experimental production

Clearly defined research or experimental projects with timebound objectives, such as diversification into new product lines, or the introduction of new crops or new varieties of crop. Eligible actions are

- cost of the new varieties of plants;
- cost of investigating new processes;
- additional advisory costs;
- Experimental production;
- market research for the new product;
- participation in conferences/seminars, etc;
- cost of assessment study of the results.

Indicators:

- Number of actions undertaken
- Number of holdings participating in each action
- Total value of investments
- Number of new techniques, processes and/or products adopted over the course of the operational programme

3.2.5 Training and provision of advisory services

Eligible actions are:

- Provision of training courses related to the operational programme
- equipping of a dedicated training facility for members (furnishings, audio-visual presentation equipment, demonstration units) or hiring of suitable premises as required for specific courses;
- training courses for members and their production staff on quality assurance, human resource management, management of plant protection products, harvesting methods, IT skills needed for the implementation of operational programme actions or for administration of the operational programme;
- daily allowances, transport costs and accommodation may be allowed. Training of non-PO staff/non-PO members is not eligible for inclusion in the programme.

- Provision of advisory services and technical advice to PO members on
 - optimising inputs;
 - improving quality;
 - plant health issues;
 - food safety and hygiene issues;
 - preparing for certification under quality assurance schemes;
 - harvesting;
 - Human resource management;
 - environmental issues, such as irrigation, heating, use of fertilisers and plant protection products;
 - varieties suitable for organic production in Irish conditions and organic production methods;
 - integrated production methods.

Indicators:

- Number of training actions
- Number of days of training received by participants
- Number of people who completed the full training activity/programme
- Number of holdings that use advisory services

3.2.6. Crisis prevention and management measures

To assist growers deal with market volatility, the following measures are eligible under crisis prevention and management:

- Investments aimed at making the management of volumes placed on the market more efficient. Eligible investments will require justification that the proposed investment is suitable to effectively prevent or better withstand a crisis.
- Training measures and exchange of best practice.

All other measures listed under subparagraph (3) of Article 33 of Regulation 1308/2013 shall not apply.

3.2.7. Environmental actions

Operational programmes must either (a) include at least two environmental actions, and/or (b) **at least 10% of the expenditure under operational programmes must cover environmental actions.**

The Framework for Environmental Actions is in Annex A. The eligible environmental actions are set out in Section 5 check of the Framework.

3.2.8. Investment in shares

Operational programmes may include investments in shares of companies if the investment contributes directly to the goals of the operational programme under one or more of the measures above.

3.2.9. Administration of the operational programme

POs may opt for payment of a lump sum to cover administration costs up to a max of 2% of the expenditure accepted for payment or a limit of €90,000 EU aid per year.

3.2.10 Verifiability and Controllability of actions

Member States shall ensure that all of the actions included in the national strategy, the approved operational programmes and in the national framework are verifiable and controllable. To this end, the Department shall undertake an ex ante assessment of the verifiability and controllability of the actions proposed by the producer organisations for inclusion in their operational programme, based solely on the information supplied by the PO in their application.

The Department shall also undertake the assessment of the verifiability and controllability of the actions during the implementation of the operational programmes. Ex ante assessment and assessment during the implementation of the operational programme shall take account of the results of controls carried out in relation to the previous and the current national strategy and national framework, respectively. Where the assessment reveals that the requirements of verifiability and controllability are not met, the actions concerned shall be adjusted accordingly or deleted from the operational programme.



4. Designation of competent authority

The Department of Agriculture, Food and the Marine is responsible for the management, monitoring and evaluation of this strategy.

5. Monitoring and evaluating the programmes

Programmes will be approved on condition that the PO undertakes to provide the common indicators for each action implemented as listed in Section 3.2.

Each PO must report annually on the implementation of its operational programme. The report on each action must include a measurement of the progress achieved through the prescribed indicators for each action. The circumstances responsible for failure to achieve the target set or for exceeding the target should also be provided.

The effectiveness of the national strategy will be monitored through the information provided in the Annual Reports, having regard to

- the changes in value of production marketed
- the unit value changes
- percentages of programmes that achieve their stated objectives
- the changes in recognition and membership patterns
- the changes in PO market share
- the effects on the environment.

6. Monitoring and evaluating the National Strategy

A report on the effectiveness of the strategy will be compiled for submission to the EU Commission as required.

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Annex A National Environmental Framework



1. Assessment of the Environmental Situation

1.1. Climate Change

Under the **EU Climate and Energy Package 2008**, which sets out the 2020 targets, Ireland was given a target of 20% reduction in emissions by 2020 compared to 2005 levels. The EU 2030 Climate and Energy Framework (CEF) adopted by EU leaders in October 2014 builds on the EU2020 Climate and Energy Package. The proposed effort sharing binding annual GHG emissions target for Ireland under the EU 2030 CEF is 30% below the 2005 levels by 2030. In Ireland agriculture remains the single largest contributor to the overall national emissions at 33.1% of the total. These emissions are predominantly non-CO₂ primarily due to livestock enteric fermentation and manure management. Of these, only N₂O emissions from soils are concerned in the production of fruit and vegetables. Growing practices that result in better nitrogen utilisation can reduce emissions.

Ireland's **Climate Action and Low Carbon Development Act 2015** provides a statutory basis for our national policy which includes an "approach to carbon neutrality in the agriculture and land-use sector, including forestry, which does not compromise capacity for sustainable food production". As required by the Act, the Department of Agriculture, Food and the Marine has to prepare sectoral mitigation measures as part of the **National Mitigation Plan**. In addition **sectoral Adaptation Plans** (agriculture, forestry and marine) are also being prepared. This first National Mitigation Plan published in July 2017 represents an initial step on a pathway to achieve the level of decarbonisation required. The plan presents a suite of measures already in place to address the challenge to 2020 and begins the process of development of medium to long term options to ensure that Ireland is well positioned to take the necessary actions in the next and future decades. Within agriculture potential mitigation measures for development are identified within forestry, circular economy, renewable energy, research, land management and FoodWise 2025.



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FoodWise 2025, the 10 year strategy for the development of the Irish agri-food sector, has sustainable production at its core. It sets out a range of specific recommendations aimed at managing the projected growth in a sustainable way.

Under the **Renewable Energy Directive 2009** Ireland is required to achieve 16% of its total final energy consumption from renewable energy sources by 2020. Ireland aims to reduce reliance on fossil fuels and expand the use of renewable energies, including biofuel and biomass, and use energy more efficiently.

Growers within the fruit and vegetable sector are encouraged to use/ switch to renewable or cleaner energy fuels and other options around renewable energy sources such as solar and wind. Under FoodWise 2025, the roll out of the Origin Green programme to horticulture producers, with its business and environmental measures, will underpin the sustainability credentials of the industry

1.2. Nature and Biodiversity

Biodiversity is an enormously important aspect of our natural heritage and has important social, economic, scientific, educational, cultural, recreational and aesthetic values. Biodiversity includes the diversity of individuals within a species (genetic diversity), diversity of species within an ecosystem or habitat (species diversity) and the diversity of ecosystems or habitats (habitat diversity). Ecosystems provide a variety of functions including the regulation of climatic processes, breakdown of waste and recycling of nutrients, filtering of water, buffer against flooding, maintenance of soil fertility and the provision of natural resources. Since there has not been any expansion in fruit and vegetable growing areas which could lead to loss of habitats, the impact of fruit and vegetable production on nature and biodiversity primarily arises from the use of pesticides in production.

1.3 Natural resources and waste

(a) Water

Ireland's water quality compares well with that of most other EU countries with evidence of slight or moderate pollution in certain rivers and lakes. The report of the EPA (Environmental Protection Agency) on Water Quality in Ireland 2010-2012, published in 2015, showed a modest improvement for the period 2010 to 2012 in Ireland's waters with 99% of groundwater bodies and 53% of rivers having a satisfactory ecological status (Reference 1). Nevertheless, there remains an unacceptable and sizeable level of water pollution in the country. Eutrophication of rivers, lakes and tidal waters continues to be the main threat to surface waters, with agriculture being one of the key contributors.

The quality of this resource is vital, as we depend on surface and ground waters for our drinking water. Water is also crucial as a habitat for freshwater and marine plants as well as animals and as an amenity for all to enjoy.

(b) Waste

National policy is to regard waste as a resource. This is reflected in our commitment to developing a recycling society and in the priority given to the diversion of waste from landfill. The implementation of these policies has a positive side-effect in reducing greenhouse gas. The National Waste Report 2012, published in 2014, identifies that Ireland is meeting its EU obligations across a broad range of waste legislation, with national priorities of waste prevention and diversion from landfill (Reference 2).

Growers in the fruit and vegetable sector are encouraged to reuse, recycle or biodegrade wherever possible. Disposal of spent mushroom compost (SMC) is an issue for the industry and one that will only increase in importance. Efforts are underway to explore different options of dealing with SMC in a way that minimises its impact on the environment.



1.4 Environment and health and quality of life

The EPA report 'Air Quality in Ireland 2015' published in 2016 shows that air quality in Ireland was good throughout the country and complied with all of the air quality standards in force across Europe for all pollutants (Reference 3). However our air quality levels as compared to those set by the WHO is less positive. There are challenges in reducing further our levels of particulate matter which is predominantly sourced from solid fuel burning and it is in this area where much of the reductions can be made. Growers in the fruit and vegetable sector are encouraged to switch to renewable or cleaner fuels in order to reduce harmful emissions.

2. NATIONAL PRIORITIES

The environmental actions under the Scheme of EU Aid for Producer Organisations will seek primarily to deliver benefits in three of the key areas targeted in the **General Union Environment Action Plan to 2020** 'Living well, within the means of our planet', viz.

- climate change,
- nature and biodiversity, and
- natural resources and waste.

The objectives under each of these priorities are set out in Section 6, with a non-exhaustive list of eligible actions identified for each priority. The horticultural sector in Ireland is small and its impact on the objectives identified under the priority Environment and Health and Quality of Life in the General Union Environment Action Plan to 2020 'Living well, within the means of our planet' will not be significant in the overall context, however the individual effects are cumulative and hence important.

The priorities identified for the horticultural sector as a result of the assessment of the environmental situation complement, and are consistent with, the priority areas of (1) restoring, preserving and enhancing ecosystems and (2) promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy, as defined in Ireland's **Rural Development Programme 2014-2020**. These priorities are intended to deliver benefits in the areas of climate change, water quality and biodiversity. Ireland's 10 year strategy for the development of the Irish agri-food sector

FoodWise 2025 has sustainable production at its core. The 2025 strategy is focused on developing technologies and processes which support a vision of sustainable intensification. This strategy will support continued investment in environmentally sustainable approaches to agriculture, food and forestry production based on the latest scientific evidence and targeted at delivering public good, economic growth and supporting the development of sustainable rural and coastal local communities.

3. GENERAL CONDITIONS FOR COMPULSORY ENVIRONMENTAL ACTIONS

- 3.1. As required by Article 33 (5)(a) of Regulation (EU) No 1308/2013 of the European Parliament and of the Council, operational programmes must include two or more environmental actions. Two exceptions are allowed:
- a programme with just one environmental action will be approved if that single action entails at least 10% of the expenditure on the overall programme;
 - if at least 80% of the producer members of the PO are subject to one or more identical agri-environment commitments under GLAS (Green Low carbon Agri-environmental Scheme), then each one of those commitments shall count as an environmental action under the operational programme. There will be no additional aid under the programme for agri-environment commitments aided under GLAS. In practice very few, if any, PO members are in GLAS.





- 3.2. The compulsory actions may be undertaken at PO level or on individual holdings.
- 3.3. Although the expenditure on the compulsory environmental actions may be concentrated in one or more of the years covered by the operational programme, the related environmental commitment(s) must continue for the remaining duration of the programme and implementation and impact must be documented.
- 3.4. In the case of an action other than investments, the duration of an action must be sufficiently long to ensure that the environmental benefits can be realised.
- 3.5. The compulsory actions must be implemented at the latest in the second year of the programme. Payment (or the balancing payment, if appropriate) for the first year of the operational programme will not be made until the PO has provided satisfactory evidence that the compulsory environmental actions have been / are being implemented.
- 3.6.1. In the case where the National Framework provides for an environmental action (other than investments) that is similar to an agri-environmental measure included under the Rural Development Programme (e.g., organic production, integrated production and other actions where the duration is an essential condition for its effectiveness, i.e., for attaining the expected environmental benefits), the same duration should apply as the similar agri-environmental measure concerned, unless a different duration can be justified in the National Framework.
- 3.6.2. In the case where the duration of the operational programme is shorter (i.e., 3 or 4 years) than the duration referred to in Section 3.6.1, the PO is obliged to continue the environmental action concerned in its subsequent operational programme, if this is necessary for attaining the duration applying for similar agri-environmental measures under the Rural Development Programme, except for duly justified reasons, and in particular based on the results of the evaluation provided for in Article 57(3) of Commission Delegated Regulation (EU) No 2017/891.

4. GENERAL CONDITIONS FOR ALL ENVIRONMENTAL ACTIONS

- 4.1 In accordance with Article 33(5) of Regulation (EU) No 1308/2013 of the European Parliament and of the Council, environmental actions selected under an operational programme must:
 - respect the requirements for agri-environment climate payments laid down in Article 28(3) of Regulation (EU) No 1305/2013, and in particular go beyond:
 - a) the relevant mandatory standards established pursuant to Chapter I of Title VI of Regulation (EU) No 1306/2013,
 - b) the relevant criteria and minimum activities as established pursuant to points (c)(ii) and (c)(iii) of Article 4(1) of Regulation (EU) No 1307/2013, and
 - respect relevant minimum requirements for fertiliser and plant protection product use as well as other relevant mandatory requirements established by national law. All such mandatory requirements shall be identified in the programme and conform to the National Framework. In particular actions should respect the protocol for Integrated Pest Management as set out under Appendix III of Directive 2009/128/EC, as transposed into Irish law by Statutory Instrument No. 155 of 2012, European Communities (Sustainable Use of Pesticides) Regulations 2012 and which is implemented through Ireland's National Action Plan for the Sustainable Use of Pesticides.
 - be compatible with and complement the other environmental actions implemented under the operational programme and, where appropriate, with the agri-environmental commitments, supported under the Rural Development Programme, implemented by the members of the PO.



- 4.2. Where an operational programme entails the possibility of combining different environmental actions and/or where the environmental actions selected under the operational programme may be combined with agri-environmental measures supported under the Rural Development Programme, the level of support must take account of the specific income foregone and additional costs resulting from the combination to avoid the risk of over-compensation.
- 4.3. With the exception of investment actions only the additional costs incurred by actions which go beyond the basic statutory requirements are eligible for consideration for aid. Aid will only be paid on the basis of additional costs incurred and/or income foregone compared to the normal situation pertaining. The eligible expenditure on non-investment based environmental actions is the specific additional cost, calculated as the difference between conventional costs and the costs actually incurred. Income foregone as a result of the environmental actions is also eligible, provided it is fully documented. Where appropriate, account must also be taken of any cost savings and additional income resulting from the action.
- 4.4. The support for the environmental actions selected under an operational programme, which is intended to cover additional costs and income foregone resulting from the actions, may be modified in case of amendments of the relevant reference level (i.e., the set of standards beyond which an environmental commitment must go).
- 4.5. When the environmental action is an investment, it must be used by the PO for the normal accountancy depreciation period or a period of 10 years, whichever period is shorter. If the investment is replacing an investment previously funded under the Scheme of EU Aid for Producer Organisations in the Fruit and Vegetables Sector or any other EU / Nationally funded Scheme the residual value of the investment being replaced must be:
- (a) added to the operational fund of the Producer Organisation;
 - or
 - (b) subtracted from the cost of the replacement.
- 4.6. The provision of technical assistance, advice and training, and of environmental and energy audits are actions that, if implemented alone, do not produce environmental benefits, but they may be eligible for support if implemented in combination with actions that can be expected to have a direct positive impact on the environment and are specifically targeted to reinforce the effects of those actions. The activities must be entrusted to additional (internal or external) qualified personnel. The operational programme must clearly indicate the specific tasks that the additional qualified personnel are required to perform. The technical assistance, advice and training must be distinct from actions taken under Section 3.2.5 of the National Strategy.
- 4.7. Personnel costs (including legally compulsory charges linked to wages and salaries if these are directly borne by the PO) for improving or maintaining a high level of environmental protection are eligible; the costs involved shall essentially involve the use of qualified personnel but the PO may also request authorisation to use its own employees or member producers. The time worked must be documented in all cases.
- 4.8. A written undertaking must be given by the PO and its members that they have not received, directly or indirectly, duplicate EU or national funding in respect of environmental actions qualifying for aid in the operational programme.





- 4.9. Based on provisions of Article 30(3), of Commission Delegated Regulation (EU) No 2017/891, amounts of support for the actions under the operational programmes cannot exceed the levels of support for similar measures carried out under the Rural Development Programme and, in any case, under paragraph 4 of the same Article, the support for environmental actions, other than the acquisition of fixed assets, cannot be higher than the maximum amounts laid down in the Annex to Council Regulation 1305/2013 for agri-environment-climate payments or organic farming payments.
- 4.10. The demarcation criteria between measures under the Rural Development Programme and the Scheme for Producer Organisations are set out in section 3.1 (Conditions applying to Programmes) of the National Strategy.

5. ENVIRONMENTAL ACTIONS THAT MAY BE INCLUDED IN OPERATIONAL PROGRAMMES

The following is a non-exhaustive list of actions addressing the national priorities identified in Section 2. Amendments or additions to this list are subject to the provisions of the commentary process provided for under Article 36 of Regulation (EU) No 1308/2013 of the European Parliament and of the Council. If a PO wishes to include a new action in their Operational Programme, not included in the list below, the PO must apply to the Department on HORT PO NEF application form, including all documentation they wish the Department to take into account when assessing the application. Since the Commission has 3 months to determine whether inclusion of a new action in the National Environmental Framework is consistent with EU objectives and the Department must also assess the application in advance of submitting an application to the Commission, a PO must apply at least 4 months before the PO intends to include a new action in their operational programme. The PO must take into account any modifications required by the Department or recommended by the Commission before implementing the action, if approved subject to conditions.

5.1. Climate change

The objective is to reduce the environmental load of greenhouse gas emissions and thus mitigate the effects of climate change resulting from human activities. Measures to achieve this include reducing emissions from heating installations, reducing consumption of fuels and/or using renewable energy. Since Ireland imports 88% of its energy needs (Reference 4), this is an important priority for all sectors.

It is recommended that an energy audit should form part of any project under this priority, unless previously undertaken.

5.1.1. Reducing emissions

The specific commitment entailed is the **replacement of an existing burner/boiler** with

- a) a more efficient system or
- b) one using cleaner fuel (e.g., moving from oil to gas); the CO₂ produced may be vented into the glasshouse and thus captured in the crop tissue.





This action is justified in relation to Ireland's environmental needs and priorities as

- less energy or a cleaner fuel will be used resulting in a reduction in CO₂ / other pollutant emissions.

The expected reduction in energy used will be assessed ex-ante on the basis of technical specifications; the expected reduction in energy use must be at least 15%. It may be less, but not lower than 7%, when together with the reduction in energy use (and in CO₂ emissions) there is at least another environmental benefit combined (e.g., reduction in the emission of air pollutants).

Eligible expenditure: Invoiced costs of purchase and installation of burner/boiler and associated equipment. Cost of energy audit conducted by suitably qualified personnel.

5.1.2. Reducing energy requirement

- A.** The specific commitment entailed is to **increase insulation** in production units, e.g., thermal screens in glasshouses, in mushroom houses or in packing sheds and / or offices.

This action is justified in relation to Ireland's environmental needs and priorities as the heating/cooling requirement will be reduced, thus reducing the amount of energy used and the emissions produced.

The expected reduction in energy used will be assessed ex-ante on the basis of technical specifications; the expected reduction in energy use must be at least 15%.

Eligible expenditure: Invoiced costs of purchase and installation of extra insulation, mobile and fixed thermal screens and associated equipment. Cost of energy audit conducted by suitably qualified personnel.

- B.** The specific commitment entailed is the **installation of Combined Heat and Power (CHP) units (see Note 1 in Appendix 1)**. These are designed to produce both power in the form of electricity and heat, giving greater efficiencies in energy use. They may also use biofuel as an energy source. This justifies the action on the basis of its expected impact in relation to Ireland's environmental needs and priorities.

The expected reduction in energy used will be assessed ex-ante on the basis of technical specifications; the expected reduction in energy use must be at least 15%. It may be less, but not lower than 7%, when together with the reduction in energy use (and in CO₂ emissions) there is at least another environmental benefit combined (e.g., reduction in the emission of air pollutants). If the investment increases demand for bio-fuel, there must be sufficient bio-fuel available to avoid the investment reducing the quantity of bio-fuel available for use in existing biomass burners/boilers.

Eligible expenditure: Invoiced costs of purchase and installation of CHP units. Cost of energy audit conducted by suitably qualified personnel. Cost of technical assistance and advice specifically related to installation and commissioning of the CHP unit.





5.1.3. Using renewable energy

A. The specific commitment **entailed is the replacement** of an existing burner/boiler with one using renewable energy, **e.g., wood pellets/chips**. This action is justified in relation to Ireland's environmental needs and priorities as it should result in an overall reduction in the emission of greenhouse gases through using a non-fossil fuel. If the investment increases demand for bio-fuel, there must be sufficient bio-fuel available to avoid the investment reducing the quantity of bio-fuel available for use in existing biomass burners/boilers.

Eligible expenditure: Invoiced costs of purchase and installation of boiler and associated equipment. Cost of energy audit conducted by suitably qualified personnel. Cost of technical assistance and advice specifically related to installation and commissioning of the burner/boiler.

B. The specific commitment entailed is the **installation of solar panels**. This action is justified in relation to Ireland's environmental needs and priorities. By raising the temperature of the water to be heated by the heating system, the energy requirement for heating will be reduced and the emissions from combusted fuel will be reduced. The expected reduction in energy use and emissions will be assessed ex-ante on the basis of technical specifications.

Eligible expenditure: Invoiced costs of purchase and installation of panels and associated equipment. Cost of energy audit conducted by suitably qualified personnel.

C. The specific commitment entailed is **the installation of wind turbines (see Note 1 in Appendix 1)**.

This action is justified in relation to Ireland's environmental needs and priorities. The electricity generated for use by the PO will reduce the requirement for electricity from the National Grid. At present a maximum of 27% of Ireland's energy supplied through the National Grid is generated from renewable sources (Reference 4).

Eligible expenditure: Invoiced costs of purchase and installation of wind turbines and associated equipment. Cost of energy audit conducted by suitably qualified personnel.





- D.** The specific commitment entailed is the installation of **Geothermal systems** designed to reduce the overall requirement for other fuels for heating and /or cooling.

This action is justified in relation to Ireland's environmental needs and priorities as the heating/cooling requirement will be reduced, thus reducing the amount of energy used and the emissions produced. The expected reduction in energy use and emissions will be assessed ex-ante on the basis of technical specifications.

Eligible expenditure: Invoiced costs of purchase and installation of geothermal heating / cooling systems. Cost of energy audit conducted by suitably qualified personnel.

- E.** The specific commitment entailed is the **installation of photovoltaic panels (see Note 1 in Appendix 1).**

This action is justified in relation to Ireland's environmental needs and priorities. The electricity generated for use by the PO will reduce the requirement for electricity from the National Grid.

Photovoltaic panels meet the requirement of achieving at least a 15% reduction in CO₂ emissions over their lifecycle when used to generate electricity which substitutes electricity currently coming from Ireland's National Grid (Reference 5).

Eligible expenditure: Invoiced costs of purchase and installation of photovoltaic panels and associated equipment including meters to record the quantity of electricity generated. Cost of energy audit conducted by suitably qualified personnel.

- F.** The specific commitment entailed is the upgrading of existing glasshouses, mushroom houses and other buildings such as chillrooms, PO offices/ packhouses to the use of **new low energy light technology.**

This action is justified in relation to Ireland's environmental needs and priorities, reducing the need for energy for lighting.

The expected reduction in energy used will be assessed ex-ante on the basis of technical specifications; the expected reduction in energy use must be at least 15%.

Eligible expenditure: Invoiced costs of purchase and installation of low energy light technology.

- G.** The specific commitment entailed is the **replacement of existing pumps or fans that have fixed speed motors with pumps or fans that have variable speed on/off motors.**

This action is justified in relation to Ireland's environmental needs and priorities as the energy requirement for heating/cooling will be reduced, thus reducing the amount of energy used and the emissions produced. The expected reduction in energy used will be assessed ex-ante on the basis of technical specifications; the expected reduction in energy use must be 15% at least. It may be less, but not lower than 7%, when together with the reduction in energy use (and in CO₂ emissions) there is at least another environmental benefit combined (e.g. reduction in water use).

Eligible expenditure: Invoiced costs of purchase and installation of variable speed on/off motor pumps.





5.2. Nature and Biodiversity

The use of pesticides in production of fruit and vegetables may impact on nature and biodiversity. The objective is to minimise the impact and possible negative effects of production on nature and biodiversity within our current state of knowledge. Actions under this priority must be aimed at producing fruit and vegetables in a way that minimises the effect on nature and biodiversity.

5.2.1. Use of natural pest control agents

The specific commitment entailed is the **use of pheromones, predators, parasites and other biological agents to control pests**, in glasshouse and field crops.

This action is justified in relation to Ireland's environmental needs and priorities as it has the objective of keeping the use of chemical pesticides in the production of fruit and vegetables to a minimum.

It is now normal practice to use certain pheromones, predators, parasites and/or other biological agents to control pests in Irish glasshouse tomato and sweet pepper production. **Appendix 2 provides a non-exhaustive list of natural pest control agents where no specific additional costs arise under this action in the case of Irish glasshouse tomato or sweet pepper production. Natural pest control agents which are not listed in Appendix 2 will have to be considered on a product by product basis to determine if**

any specific additional costs arise if used in connection with glasshouse tomato or sweet pepper production. If a PO intends to seek specific additional costs associated with a new natural pest control agent to be used in glasshouse tomato or sweet pepper production the PO must provide specific proposed product details at the time it is submitting its operational programme.

Eligible expenditure: The specific additional costs involved in using these pest control methods. Personnel costs and technical advice by suitably qualified personnel are also eligible.

5.2.2 Use of inherent disease resistance

The specific commitment entailed is the use of grafted plants to confer disease resistance and/or the use of disease resistant varieties.

This action is justified in relation to Ireland's environmental needs and priorities as it has the objective of keeping the use of chemical pesticides in the production of fruit and vegetables to a minimum.

Eligible expenditure: The specific additional costs incurred in the use of grafted over non-grafted plants, or resistant varieties over non-resistant varieties. Cost of technical assistance and advice in selecting varieties most suitable for Irish conditions/ growers' situations is also eligible.

5.2.3 Use of physical methods of weed control

The specific commitment entailed is the use **of physical methods of weed control.**

This action is justified in relation to Ireland's environmental needs and priorities as its objective is to reduce the use of chemical weed killers compared to programmed spraying.

Eligible expenditure: Invoiced costs of investment in equipment; the specific additional costs associated with the use of these kinds of weed control. Cost of technical assistance and advice are also eligible for growers who have not previously used this type of weed control.

5.2.4. Targeted application of pesticides

The specific commitment entailed is the **investment in specialist ultra low volume (ULV) crop sprayers.**

This action is justified in relation to Ireland's environmental needs and priorities as the targeted application of pesticides will result in lower use of pesticides and a more accurate application, reducing risks of pollution.

The expected reduction in pesticide use and the increased accuracy will be assessed ex-ante on the basis of technical specifications.

Eligible expenditure: Invoiced costs of purchase of specialist ULV sprayers.

5.2.5. Organic Production

The specific commitment entailed is the **production of crops according to a recognised organic protocol that is subject to independent certification.**

The recognised organic protocol must entail the application of production methods compliant with the provisions of Council Regulation (EC) No 834/2007.

This action is justified in relation to Ireland's environmental needs and priorities as its objective is to reduce the use of pesticides and fertilisers.

Eligible expenditure: Invoiced costs for investments in equipment and facilities necessary for organic production. Specific additional costs related to the application of organic production methods are also eligible.

5.3. Natural Resources and Waste

The main areas of concern here are the production of waste and the use of natural resources such as water and peat. The waste produced is of various kinds - organic waste of production, including spent mushroom compost (SMC), plant trimmings and crop residues, as well as packaging waste. The objectives are to reduce the amount of waste produced, to re-use it wherever possible and to biodegrade it where re-use is not feasible. With natural resources the objective is to use them sustainably, by using them more efficiently and re-using them wherever possible.

5.3.1 Re use of organic waste of production

A. The specific commitment entailed is the **use of dried SMC as a fuel on-farm** using a Fluidised Bed Combustion system.

This system is already in use on poultry farms, where poultry litter is used as a fuel. The ash is suitable for incorporation in compound fertiliser.

This action is justified in relation to Ireland's environmental needs and priorities as its objective is to re-use SMC, produce bio-energy for use on the farm and recycle nutrients.

Eligible expenditure: Invoiced costs of purchase and installation of a suitable boiler and ancillary equipment. Cost of technical assistance and advice in relation to monitoring of emissions and running of remote computerised control system.



- B.** The specific commitment entailed is the **composting and re-use of plant material**. This action is justified in relation to Ireland's environmental needs and priorities as its objective is to re-use waste and produce organic compost that can be reused as a soil conditioner.

Eligible expenditure: Costs associated with setting up the composting facility and the specific costs associated with using the compost for soil conditioning. Cost of technical assistance and advice to select the most efficient system for growers who are new to the technology.

- C.** The specific commitment entailed is the **investment in machinery for the production of "logs" from dried SMC for use as fuel** by producer organisation or non-producer organisation members.

This action is justified in relation to Ireland's environmental needs and priorities as its objective is to re-use waste and use a renewable source of energy.

Eligible expenditure: Invoiced costs of purchase of machinery to produce logs from dried SMC for use as fuel.

- D.** The specific commitment entailed is **pyrolysis (burning without oxygen) of SMC** and use or selling of the produced oil and ash. This process will yield an oil-like fuel and ash that can be incorporated into fertiliser.

This action is justified in relation to Ireland's environmental needs and priorities as its objective is to re-use waste, use a renewable source of energy and recycle nutrients.

Eligible expenditure: Invoiced costs of the purchase and installation of the equipment necessary.

- E.** The specific commitment entailed is the **investment in machinery for the collection, sterilisation and re use of mushroom casing**, either for mushroom growing or other plant cultivation.

Mushroom casing is currently made from peat. It is normally used only once. This action provides for its re-use either for mushroom growing or for re use in other plant cultivation in the amenity or protected fruit and vegetable crops sectors. It is justified in relation to Ireland's environmental needs and priorities as its objective is the more sustainable use of peat, which is a limited natural resource.

Eligible expenditure: Invoiced costs of the purchase of suitable equipment for the collection, sterilisation and re-use of mushroom casing. Personnel costs involved are also eligible.

5.3.2. Capture and re-use of water in growing systems

The specific commitment entailed is the **capture, treatment and reuse of excess irrigation water draining from glasshouse growing systems**.

This action is justified in relation to Ireland's environmental needs and priorities as its objective is a reduction in the use of water and a reduction in the application of fertilisers through more efficient use.

The expected reduction in water use will be assessed ex-ante on the basis of technical specifications; the expected reduction in water use must be 15% at least. It may be less, but not lower than 7%, when two or more environmental benefits are combined. Where it is not possible to check ex-ante on the basis of technical specification, the reduction in water use must be checked on an ex-post basis.

Eligible expenditure: Invoiced costs for the purchase and installation of the treatment and re-circulation equipment necessary. Costs of technical assistance and advice in relation to monitoring and correcting nutrient levels in re-used irrigation water, including monitoring nutrient levels in the fruit and vegetables.



5.3.3. Capture and treatment of rain water collected from rooftops

The specific commitment entailed is the **capture, treatment and reuse of rain water collected from rooftops.**

This action is justified in relation to Ireland's environmental needs and priorities as its objective is the sustainable use of water and managing our precious resource.

Eligible expenditure: Invoiced costs for the purchase and installation of collection tanks and treatment and other associated equipment necessary.

As appropriate

- the estimated change in annual mineral fertiliser consumption/hectare, by type of fertiliser (tonnes);
- the estimated change in annual water use/hectare (cubic metres/ha);
- the estimated change in annual use of energy by type of energy source or type of fuel (tonnes/litres/cubic metres/kWh per ton of marketed production);
- the estimated change in annual volume of waste generated (tonnes per tonne of marketed production);
- the number of farms operating as an organic farm;
- the number of farms undergoing transition to organic production;
- tonnes / volume of organic produce grown;
- the volume (cubic metres) of water collected and reused.

6. INDICATORS

The environmental impact of the programme must be measured with appropriate indicators. The indicators must include the position at the start of the programme (the baseline), the position at the end of the programme and the difference, if any. The information required includes the following non-exhaustive list:

For all actions

- the number of holdings participating in the action if it involves the acquisition of fixed assets on individual holdings;
- the total value of investments;
- the number of hectares or m2 growing area concerned.



Appendix 1 to Ireland's National Environmental Framework

List of references cited in Ireland's National Environmental Framework and notes / conditions applicable to certain actions outlined by the National Environmental Framework

Reference 1:

<http://www.epa.ie/pubs/reports/water/waterqua/wqr20102012/WaterQualityReport.pdf>

Reference 2:

http://www.epa.ie/pubs/reports/waste/stats/EPA_NWR12_Complete_to_web_5Aug14.pdf

Reference 3:

<http://www.epa.ie/pubs/reports/air/quality/Air%20Quality%20Report%202015.pdf>

Reference 4:

http://www.seai.ie/Publications/Statistics_Publications/Energy_in_Ireland/Energy-in-Ireland-1990-2015.pdf

Reference 5:

a: Fuel Mix Disclosure and CO₂ Emissions 2015, Commission for Energy Regulation, August 2016 (page 17)

b: Renewable Energy Sources and Climate Change Mitigation Special Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, 2012 (page 19)



Note 1: Condition applicable to any investment which results in the generation of energy

Investments which result in the generation of energy are eligible for support if the amount of energy generated does not exceed the amount used ex-ante on a yearly basis for actions related to fruit and vegetables by the producer organisation, its subsidiary or member(s) benefiting from the investment.

For each investment that results in the generation of energy the producer organisation must retain evidence that the quantity of electricity which the investment will generate will be related to the farm or the producer organisation's needs and, in principle, should not exceed the total average consumption of the farm or the producer organisation's premises on which it has been placed.



Appendix 2; List of ineligible Biological Control agents

Products listed below and other products that contain the same active agents are ineligible for aid.

Yellow Roller Trap
Roller Trap Blue
En-strip
Entofood
Horiver yellow trap
Spidex
Thriphor L
Mircal/ Macrolophus
Spical
Swirski



Notes





An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

