## NATIONAL FRAMEWORK FOR ENVIRONMENTAL ACTIONS

# National Strategy for Operational Programmes of Producer Organisations in the United Kingdom

## **National Framework for Environmental Actions**

#### INTRODUCTION

- EF1. Council Regulation (EC) No 1234/2007 provides for EC financial assistance to be given to registered Producer Organisations (POs) which have approved operational programmes. Article 103c(3) of that Regulation requires subject to certain conditions POs to include in such programmes two or more environmental actions, or alternatively at least 10% of the expenditure under operational programmes covering environmental actions. This National Framework draws up the general conditions relating to such environmental actions, explaining in more detail what the legislative background is, what the links with the Rural Development Regulation (Regulation (EC) NO 1698/2005) are, and intended to give guidance to POs on the broad categories of environmental actions that comprise the framework so far as the United Kingdom are concerned, as well as a non-exhaustive list of detailed actions that might be included in operational programmes.
- *EF2.* The National Framework applies to the United Kingdom as a whole, but reference is made in paragraphs 4 and 5 to differing considerations which apply in England, Scotland, Wales and Northern Ireland respectively as a result of differences in relevant legislative provisions, notably as regards rural development programmes.

## Duration of the environmental framework

EF3. The period of application of the United Kingdom's environmental framework will be six years, from 2008 to 2013. The framework may be amended (if circumstances make it appropriate to do so) at annual intervals during that five year period, with any amendment to the framework being submitted to the Commission. The timetable applying to any such proposed amendment will be such as to allow any further modification that the Commission might require to be incorporated into the framework in advance of the deadline for the submission each year of applications for new operational programmes or amendments to existing programmes.

# Linkage with rural development

*EF4.* Actions under this framework shall be complementary, consistent and in conformity with the following programmes approved under Regulation (EC) No 1698/2005:

Rural Development Programme for England 2007-2013 (approved by the European Commission on 7 December 2007)

Rural Development Plan for Wales 2007-2013 (approved by the European Commission on 20 February 2008)

**Scotland Rural Development Programme 2007-2013** (approved by the European Commission on 23 January 2008)

**Northern Ireland Rural Development Programme 2007-2013** (approved by the European Commission on 24 July 2007)

EF5. So far as the interpretation of the second sub-paragraph of Article 103c (3) of Regulation (EC) No 1234/2007 is concerned, "requirements for agri-environment payments" shall have the following meaning:

## In England:

The requirements set out in Appendix VIII of Annex 2 to Chapter 5 of the RDPE Programme Document ("The Agri-Environment Baseline").

#### In Scotland:

The requirements set out in Annex 8 of the Scotland Rural Development Programme.

#### In Wales:

The requirements set out in Appendix 1 to the Rural Development Plan for Wales 2007-2013.

#### In Northern Ireland:

The requirements set out in Annex 4 Measure 2.2 ("Agri-Environment Programme") and Annex 4 Appendix A of the Northern Ireland Rural Development Programme 2007-2013 ("Management Prescriptions and Capital Works eligible for support under Measure 2.2: The Agri-Environment Programme (Northern Ireland Countryside Management Scheme").

EF6. So far as the interpretation of the penultimate sub-paragraph of Article 103c (3) of Regulation (EC) No 1234/2007 is concerned, "agrienvironment commitments" shall have the following meaning:

#### In England:

Membership of the Entry Level Stewardship scheme or Organic Entry Level Stewardship scheme (but not the Higher Level Stewardship) under Axis 2 of the RDPE, together with membership of two equivalent schemes that are no longer open to new applicants (the Countryside Stewardship and Environmentally Sensitive Areas schemes). However, in the case of applications for in-year amendments to operational programmes in 2008 only, "agri-environmental commitment" may additionally be interpreted as referring to commitments to carry out individual options within Entry Level Stewardship, or individual options within the corresponding agri-environment schemes which operate in Scotland, Wales and Northern Ireland.

#### In Scotland:

Membership of the Land Management Contract Menu Scheme, Organic Aid Scheme, Countryside Premium Scheme, Environmentally Sensitive Area Schemes, Habitats Scheme and the Rural Stewardship Scheme, which are no longer open to new applicants; and Rural Development Contracts Land Managers' Options and Rural Development Contracts Rural Priorities under Axis 2 of the Scotland RDP.

#### In Wales:

Membership of the Tir Cynnal, Tir Gofal or Organic Farming and Maintenance Schemes under Axis 2 of the RDP Wales.

#### In Northern Ireland:

Membership of the Northern Ireland Countryside Management Scheme or the Organic Farming Scheme in Measure 2.2 of the Northern Ireland Rural Development Programme.

## Relevant legislation and other provisions (non-exhaustive list)

*EF7.* Cross compliance conditions, comprising

- Statutory Management Requirements in the areas of environmental, public and plant health legislation, as set out in Articles 3 and 4 of Regulation (EC) No 1782/2003
- Requirements under domestic (E,W,S,NI,UK) legislation requiring land to be held in Good Agricultural and Environmental Condition (GAEC)

*EF8.* **Codes of Good Agricultural Practice** in regard to Air, Water and Soil (currently under revision)

## **ENVIRONMENTAL NEEDS AND PRIORITIES**

EF9. As part of the initial analysis of the United Kingdom's fruit and vegetable industry carried out as part of the preparation of its National Strategy, as required by Article 103f (2) of Regulation (EC) No 1234/2007, a review was carried out of the environmental needs and priorities of each of the principal sectors of the industry. The following paragraphs accordingly give a sector-by-sector picture of the current environmental status of the fruit and vegetable industry and ways in which that status might be improved. The various separate headings under which it has been shown that the industry's status shows room for improvement are summarised in paragraph 36 ("broad categories of measure for environmental action"). Each of these categories features prominently in the United Kingdom government's list of overall national strategic environmental objectives, and contributes to the fulfilment of the United Kingdom's commitments under Article 174 of the Treaty and under the Sixth Community Environmental Action Programme.

# Vining peas: environmental needs and priorities

- EF10. Vining pea crops require little in the way of soil-applied fertiliser and research and development is enabling thresholds to be established for major pests, limiting the application of pesticides. Organic production is being used as an opportunity to learn about growing the crop without pesticides at all, particularly herbicides. Techniques such as increasing seed rate and sowing deeper in conjunction with finger weeders are proving successful in controlling weeds, though volunteer potatoes are a still a problem which needs to be tackled. Volunteer potatoes are a major contaminant in the harvested crop if no herbicides are available.
- EF11. Harvesting of the crop can lead to significant damage to soils if it has to proceed in unfavourable weather conditions, though efforts are being made through the latest designs of harvester aim reduce or minimise this. As the crop matures rapidly, delaying harvest until field conditions improve is not a practical option.
- EF12. There is an awareness of the need to promote the environmental credentials of the crop such as its carbon footprint and nitrogen-fixing ability. Carbon measurement is likely to feature in future plans as the crop has a lower-than-average carbon footprint and this should be further reduced by making pea harvesters more fuel efficient. One of the major processors has successfully engaged its contracted growers in initiatives to audit and put in place energy plans, minimisation of carbon footprints, encourage biodiversity and tackle soil management and diffuse pollution. Generally the vining peas sector have been in the vanguard on

environmental and sustainability issues, with individual members taking responsibility encouraged by both the PO and the customer. It is usual for crop sprays to be minimised, and efforts continue to persuade growers to leave fields margins uncultivated to encourage habitats and wildlife, notably providing the ideal habitat for ground nesting birds such as lapwings, yellow wagtails and skylarks.

## Field vegetables: environmental needs and priorities

- *EF13.* Research recently commissioned by Defra comparing the 'environmental footprint' of certain field vegetables with other horticultural crops, and with other forms of agricultural production (wheat, lamb and milk) has showed that in terms of:
  - ecological footprint
  - pesticide use
  - 'global warming potential'
  - eutrophication/acidification potential
  - water and labour use

that those studied (carrot, cauliflower and onion) rated quite low for impact. This in part due to the attributes of the production systems employed, but also reflects the part played by Good Agricultural Practice codes, accreditation schemes and the demands of the market. Nevertheless the demands to improve environmental performance continue to increase both as a result of legislation and consumer preferences.

- EF14. The majority of field vegetable businesses are accredited to at least one quality scheme, such as Assured Produce, and often several such schemes. In general these require the adoption of practices which go beyond compliance with legislation and require businesses to demonstrate that this has been done through self- and independent audits. Accredited businesses should have policies in place covering environmental aspects of production, which will be subject to regular review. Indeed many leading producer groups actively promote their environmental credentials and take an active part in schemes such as LEAF or 'Operation Bumble Bee'. The major environmental concerns for field vegetable producers are the use of water and energy, including transport.
- EF15. Water plays a crucial role in the sustainable cropping of many vegetable growing enterprises; often associated with this are enhanced natural habitat areas for example around reservoirs. The Water Framework Directive and climate change are major drivers likely to affect future investment. Water abstraction and its management in terms of efficacy of application represent a major challenge for the vegetable growers as the majority of water use in vegetable crops is during the summer, when there may potentially be a shortage in supply. If, as a result of climate change, summers are to be longer and drier, then water shortages and/or the increasing cost of water may start having a significant environmental impact.

- EF16. Longer and drier growing seasons could result in greater amounts of water being required (for example, irrigation is now sometimes required in March and October, which would have been unheard of even 5 years ago). Efforts are being made to encourage greater water resource efficiency by considering practical measures to reduce usage, adopting best practice and benchmarking irrigation systems, as well as investing in improved delivery systems. Where feasible, growers will be looking to ensure greater security of this resource. Greater attention may also need to be given to preventing soil erosion as irrigation or intense rainfall events increase.
- EF17. Likewise energy use, including its use in transport, can have a major environmental impact from primary production though to market preparation. Energy audits are becoming a more regular feature on farms, with energy consumption an important feature for product choice or investment decisions.
- EF18. The combined effect of EC legislation on pesticides and their commercial availability and efficacy, the influence of accreditation schemes and pressures from the multiples and consumers are leading to a much closer look at the use of agrochemicals. The supermarkets may have their own list of pesticides which, though officially approved, cannot be used on crops destined for them and major efforts are in place to further residue levels at point of sale. This may require different pest and disease control strategies to be adopted. On occasion, this can lead to trade-offs, for example reducing use of herbicides may mean more mechanical cultivations with increased energy use.
- EF19. Many vegetable growers have been keen to subscribe to environmental improvement schemes, not only with tree and hedge planting, but with other measures to increase bio-diversity. Moreover, an increasing number of businesses are looking for ways to reduce their overall impact on the environment, by auditing all parts of the supply chain. This will impact on primary producer's policies for energy use, water and waste. The industry is aware that carbon footprint labelling could become a standard requirement with products being labelled for consumers to see their environmental impact. Tesco has already introduced carbon footprint labelling on 30 of its products and this is expected to increase and spread to more retailers and agribusinesses.

# Soft fruit: environmental needs and priorities

EF20. As part of efforts to reduce the environmental impact of soft fruit production, more farms are moving away from production in the soil to reduce the need for soil sterilisation, particularly in the South-east. An increased proportion of the production of both strawberries and raspberries is being undertaken in substrate, using trickle irrigation and fertigation to provide the crops nutrient requirements. Modern systems are able to closely match the supply to the crop requirements, thereby reducing waste and excessive leaching of nutrients. Such systems can be undertaken on the same site year after year, helping to reduce environmental impact.

- EF21. The growing use of polythene tunnels has facilitated a reduction in the amount of sprays applied, particularly for disease control, and spraying for pests is only undertaken when a threshold in pest numbers is reached. An increasing number of sprays used are derived from natural products with very low toxicity levels and minimal residual effects.
- EF22. Adequate water supplies are an essential requirement for crops grown under temporary covers and although they may be drawn from a number of sources, volumes can be marginal at times of shortage e.g. when river, borehole or mains supplies can be restricted. The industry, at least in part, has taken steps to reduce its reliance on these sources and some reservoirs have been installed, relying on winter rainfall to charge. As well as reducing the need for abstraction from rivers, streams and other natural sources, installation of reservoirs can also provide scope for wildlife habitats and an increase in biodiversity.
- EF23. Increasingly, mulches used over beds to help suppress weeds and conserve moisture are of woven construction, allowing rain water to pass through and into the soil, helping to reduce erosion. Polythene mulches tend to direct rain water between the beds, increasing the risk of soil erosion. Straw applied between the beds during the summer does help prevent erosion and ultimately conserve the structure of the soil. Whilst polythene covers are in place over tunnel hoops, high rainfall can cause soil erosion as water is channelled between structures. Various guttering systems to collect water (and ideally recycle it) are available, but to date their cost has been high. Nuisance as a result of noise pollution has been a problem with a number of types of irrigation systems, and also with electrical generators, in the soft fruit sector and in other sectors of the industry.
- EF24. Increasingly fruit farms are planting up small areas around farms with native trees and encouraging hedges etc., all aimed at enhancing the biodiversity in the countryside. Such plantings are recognised as having the potential to encourage natural pest predators, helping to reduce the need for spraying and encouraging bees for crop pollination.
- EF25. Short-term storage facilities are essential for today's soft fruit unit, enabling harvesting to continue through the week whilst demand fluctuates and for fruit to be supplied to customers in quantity for the end of the week, when demand is greatest. Modern storage facilities have reduced energy requirements as a result of improved insulation specifications and many of the older stores are now being upgraded with improved insulation being specified to save energy.

# Top fruit: environmental needs and priorities

EF26. Much of the United Kingdom's tree fruit production is of relatively low environmental impact. Integrated pest and disease control, the use of grass in the orchards to reduce soil erosion, band application of fertilisers to meet crop needs and the encouragement of bio-diversity around orchards in

the windbreaks and hedges are all measures which take into account the needs of the environment.

- EF27. Much effort has been put into the modification of spray programmes to reduce crop residues. Increasingly, pesticides are only applied when problems reach a threshold and many of those now available are, to a great extent, much more specific for controlling their target. An increasing number of sprays used are derived from natural products, with having very low toxicity levels or residues. Post-harvest treatments are usually only applied on the basis of a risk-assessment.
- EF28. Whilst new orchards are now fitted with irrigation, much of the water is from "on farm sources", being stored in reservoirs from winter rain, utilising water which would otherwise be discharged through streams and rivers to the sea. Reservoirs provide an environment for wildlife and, in some cases, leisure facilities in the form of fishing giving additional farm income. Moreover, most orchards use mulches to help conserve moisture, particularly for young trees to aid establishment and also to help reduce the amount of irrigation required. The mulch which is often straw or increasingly composted green waste, both helping to reduce soil erosion.
- *EF29.* Increasingly fruit farms are planting native trees in small areas around farms, installing bird boxes and undertaking other measures, all aimed at enhancing biodiversity on the farm.
- EF30. The use of mow and spray orchard systems is helping to reduce fuel usage and the increasing average size of production units helps to improve efficiency of transportation of fruit to the various markets. Larger units are able to supply larger quantities of fruit to a single buyer requiring less transport movements. Moreover, fruit has in the past been stored in facilities of variable age and performance, whereas modern storage facilities have reduced energy requirements from improved insulation. Efforts have been proceeding to upgrade or replace many of the older stores and there is scope for this to continue.

## <u>Protected crops: environmental needs and priorities</u>

- EF31. The most evident environmental impact in the protected crops sector is the use of energy. In addition to its use for heating, energy consumption by lighting, pumps etc is also very important. To mitigate costs and to qualify for rebate from the Climate Change Levy / Climate Change Agreement, growers have been seeking to reduce their energy use by a variety of methods, and improve the effectiveness of that which is used. Measures to reduce heat and energy loss, such as thermal screens, will also reduce nuisance caused by light pollution in cases of extension of winter daylength by artificial lighting.
- *EF32.* Across all crops in the sector, growers are seeking to reduce the amount of pesticide use. Although the number of available pesticides is reducing, the main drivers have been the desire to adopt Integrated Pest

Management, to help differentiate United Kingdom producers from other suppliers to the market and to meet consumer's expressed preference. The introduction of accreditation schemes, such as Assured Produce, is also having an impact on use of pesticides. The degree of challenge posed in reducing agrochemical use varies between crops; it is likely that the future will also see new pest and disease threats arising which will need appropriate (biological or other) counter-measures.

EF33. The protected crops sector is a significant user of water. Most long-season crops are grown in systems such as rockwool, isolated from the soil. Water supply and irrigation systems are generally viewed as efficient, though there is a degree of over-watering to allow for imperfections in the circulation of the nutrient solutions. Recirculation of water and nutrients is practised by some and there may be a need for further investment by the industry in recycling and purification systems to limit water and fertilizer discharges from the nursery, with their potential for pollution. Water collection from, for example, glasshouse roofs is becoming more widespread and has the potential to contribute significantly to a nursery's water requirement. Additional water storage facilities may be necessary to facilitate this.

# Mushrooms: environmental need and priorities

EF34. As a protected crop, mushroom production is a significant user of energy, but a moderate user only compared with many glasshouse crops. Compost production, however, results in potentially serious liquid and gaseous emissions, and efforts are accordingly being made to limit the environmental impact of compost run off by recycling it on site. Similarly, gaseous emissions which may give rise to pollution by noxious odours are also being tackled by aeration of the compost at all stages of production.

EF35. Spent mushroom compost is generally considered to be a waste material, and a priority need of the mushroom industry is to recognise it as a potentially valuable resource, as with farmyard manure. Pesticide usage by mushroom growers is, for a number of reasons, very low, many farms being semi-organic, with efforts being directed towards specific hygiene and exclusion measures and biological control agents.

## **BROAD AREAS FOR ENVIRONMENTAL ACTION**

*EF36.* The following broad categories of measure will constitute the framework for the United Kingdom:

- (1) Measures aimed at reducing fuel and energy usage
- (2) Measures aimed at reducing the environmental impact of water usage
- (3) Measures aimed at preventing emissions into air, water or soil
- (4) Measures aimed at the re-use of crop remains and other organic residues, or at contributing to recovery of agricultural waste
- (5) The environmental management of packaging.
- (6) Measures aimed at protecting the landscape, natural habitats and biodiversity

(7) Measures aimed at preventing soil erosion and promoting conservation of soils

EF37. In the case of environmental actions falling within **Measures (1)**, (2) and (3) listed in paragraph 36 and which essentially entail making investments contributing to the general aim of the measure, a special provision will apply concerning the verification of the expected reductions in fuel/energy usage, water usage or emissions into air, water or soil. A PO opting to carry out environmental actions in these categories must provide, at the time of submitting its proposal for an operational programme or an amendment to such a programme, an independently attested statement of the reductions expected to be made in energy/fuel or water usage or in emissions into air, water or soil as a result of the investment(s) made in the course of the action concerned. An attestation may be made under either one of two different categories, depending on which of the two sets of circumstances referred to in paragraph 38 is applicable. When such an attestation falling under either category is provided, a PO will be exempt (in relation to such environmental actions) from administrative and on-the-spot checks by the competent authorities on the actual attainment of the expected reduction in fuel/energy usage, water usage or emissions into air, water and soil resulting from the investment(s) made.

*EF38.* The attestation referred to in paragraph 37 may be made under either one of two different categories:

- The first category of attestation is applicable, firstly, to the actions referred to in 2.4, 2.5 and 2.6 in the Tables following paragraph 40, and secondly in circumstances where the environmental benefits resulting from the investment(s) made in the course of the environmental action in question are confined solely to the reduction in either fuel/energy usage, or in water usage under the actions referred to in 2.2 and 2.3 in the Tables following paragraph 40, or in emissions into air, water or soil. In those cases the special provision referred to in paragraph 37 will only be applicable if the attestation shows that the expected reductions in the annual rate of fuel/energy usage, or in the annual rate of water usage, or in annual emissions into air, water or soil, will be at least 25% over the depreciation period of the investment. Alternatively:
- The second category of attestation is applicable in instances where the independent assessment indicates that the environmental action will lead to at least one additional environmental benefit under the categories of measures given in paragraph 36, as well as a reduction in fuel/energy usage, or in water usage under the actions referred to in 2.2 and 2.3 in the Tables following paragraph 40, or in emissions into air, water or soil. In those cases the special provision referred to in paragraph 37 may be applicable if the attestation shows that the expected reductions in the annual rate of fuel/energy usage, or in the annual rate of water usage, or in annual emissions into air, water or soil, will be at least 10% over the depreciation period of the investment.

EF39. The competent authorities in the different parts of the United Kingdom will determine the categories of suitably qualified individuals, or professional bodies, that are acceptable in connection with the provision of an independently attested statement as referred to in paragraph 37.

## **Detailed list of actions**

EF40. Under each of the measures referred to in paragraph 36, the following non-exhaustive list of environmental actions could be considered. Producer Organisations must include at least two of these actions in the operational programme or these actions must account for at least 10% of the operational funds of a Producer Organisation. These actions may be considered eligible for financing only if they go beyond the relevant baseline/reference level applicable (see paragraph 41, first indent). In connection with each proposed environmental action, a PO must indicate whether the expenditure under each detailed commitment that it undertakes to fulfil falls into the category of purchasing a fixed asset, renting/leasing a fixed asset, or other forms of expenditure. In cases where a PO makes commitments concerned with training, advice or technical assistance in support of environmental actions, it may choose to group these commitments together under a single heading when it draws up its operational programme.

1.	Measures aimed at reducing	fuel and energy usage			
	<u>Justification</u> : Reduce emissions of C	O2 and other greenhouse gases			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
1.1.	Review the logistics of product collection and distribution to minimise total carbon usage, where complementary to other environmental actions under the category of measures 1;	- Use of additional (internal or external) qualified personnel for an energy audit of the logistics of product collection and distribution, with the view to identifying possible areas for improvement and defining relevant environmental actions to be undertaken (*)  (*) For eligibility for support, the requirements indicated in paragraph 49 are applicable	Personnel costs related to additional (internal or external) qualified personnel used for the review	Energy usage	Change in Litres fuel/tonne produce
1.2.	Acquisition of equipment for the monitoring and control of energy consumption, where complementary to other environmental actions under the category of measures 1;	Purchase of the equipment for the monitoring and control of energy consumption      Use of the equipment as intended	Expenditure related to the investment made on the equipment		
1.3.	Replacement of existing heating installations	Purchase of a new heating installation in replacement of an existing one;      Use of the new heating installation as intended;	Expenditure related to the investment made on the new installation		
1.4.	Monitor and control energy consumption in intensive production areas (heated glass), where complementary to other	Purchase of equipment for the monitoring and control of energy consumption;	Expenditure related to the investment made on the equipment	Energy usage; installation of computer controls;	Kwh/tonne produce

1.	Measures aimed at reducing	fuel and energy usage			
	Justification: Reduce emissions of CO2 and other greenhouse gases				
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
	environmental actions under the category of measures 1	- Use of the equipment as intended.		installation of thermal screens	
1.5.	Improve thermal insulation in stores;	- Improvement of the thermal insulation in stores;	Expenditure related to the investment made on the improvement of thermal insulation	Fuel usage	Improvement in running costs per tonne produce harvested, stored
1.6.	Improve refrigeration plants;	- Undertaking the improvement of the existing refrigeration plants;	Expenditure related to the investment made on the improvement		or chilled
1.7.	Investments in more fuel-efficient harvesters and similar equipment;	<ul> <li>Purchase of a new harvester and/or similar equipment;</li> <li>Use of the new harvester and/or similar equipment as intended;</li> </ul>	Expenditure related to the investment made on the new harvester and/or similar equipment		
1.8.	Use of lighter packaging in transportation;	- Purchase and use of lighter packaging in transportation  Eligibility for support is limited to packaging compliant with the essential requirements defined by the Directive 94/62/EC	Additional costs of the lighter packaging compared with the cost of standard packaging compliant with the essential requirements defined by the Directive 94/62/EC		
1.9.	Purchase (but not leasing) of CHP unit	- Purchase of a CHP unit; - Use of the CHP unit as intended.	Expenditure related to the investment made on the CHP unit		

	Justification: Reduce emissions of C	O2 and other greenhouse gases			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
1.10.	Conversion of existing heating installations to run on renewable sources of energy	Conversion of an existing heating installation to run on bio fuels      Use of the heating installation converted as intended	Expenditure related to the investment made on the conversion of existing heating installation	Conversion of heating equipment and transport to run on bio fuels	Actual reduction in fossil fuel usage/ tonne
1.11.	Conversion of existing transport equipment to run on renewable sources of energy	Conversion of existing transport equipment to run on bio fuels      Use of the transport equipment converted as intended	Costs related to the conversion of existing transport equipment		
1.12.	Replacement of existing heating installations with new installations able to run on renewable sources of energy	<ul> <li>Purchase of a new heating installation able to run on bio fuels in replacement of an existing one</li> <li>Use of the new heating installation as intended.</li> </ul>	Expenditure related to the investment made on the new heating installation		
1.13.	Promoting the use of more sustainable transportation methods (rail, sea) rather than road transport for finished products and raw materials	Use of rail or sea transport in replacement of road transport	Additional specific costs for rail or sea transport	Volume of products and other goods transported more sustainably	Reduction in fuel usage

2.	Measures aimed at reduci	ng the environmental impact of water	usage		
		saving, or (in the case of 2.1) changing the an environmentally beneficial way			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
2.1.	High flow storage reservoirs	- Installation of a high flow storage reservoir;	Expenditure related to the investment made on the installation of a high flow	Volume of high flow water stored	Increase in high flow storage capacity
		<ul> <li>Use of the reservoir installed as intended;</li> </ul>	storage reservoir	Usage by	No of grower members utilising
		Eligibility for support is limited to storage		members	stored water
		reservoirs offering environmental			Licensed summer
		benefits in terms of winter abstraction, in particular where winter abstraction is		Reduction in	abstraction
		carried out under approval/licence by		licensed	
		such bodies as the Environment Agency		summer	
		and is encouraged in preference to		abstraction	
		summer abstraction (and where assessments are made, and			
		explanations are given, of what systems			
		will be put in place to avoid upsetting the			
		ecological balance of streams, rivers			
		and ponds, and to avoid adverse effects			
		on the wild flora and fauna associated			
		therewith). Sites impacting on SSSIs and Natura 2000 sites are excluded.			
		Major reservoir construction projects on			
		individual holdings are ineligible unless			
		they are of collective benefit to the PO			

2.	Measures aimed at reducing the environmental impact of water usage						
		<u>Justification</u> : contribute to water saving, or (in the case of 2.1) changing the seasonality of water abstraction in an environmentally beneficial way					
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement		
		and unless they are subject to appropriate depreciation and lease agreements being in place.					
2.2.	Rooftop water collection and recycling	<ul> <li>Purchase and installation of the equipment necessary for rooftop water collection and recycling;</li> <li>Use of the equipment installed as intended.</li> </ul>	Expenditure related to the investment made on the equipment necessary for rooftop water collection and recycling	Volume in cubic metres collected/reused	Increase in cubic metres collected/reused		
2.3.	Re-use of water at the level of product preparation installations	Purchase and installation of the equipment necessary for the re use of water at the level of product preparation installations;      Use of the equipment installed as intended.	Expenditure related to the investment made on the equipment necessary for the re use of water at the level of product preparation installations				
2.4.	Preparation and implementation of irrigation plans aimed at water savings or reductions in run-off;	<ul> <li>Preparation of an irrigation plan aimed at water savings or reductions in runoff;</li> <li>Implementation of the irrigation plan prepared for at least five years.</li> </ul>	- Costs related to the preparation of the irrigation plan. Eligible costs include, where appropriate, those related to soil analyses and the purchase/lease of the	No of members using, and area of crops covered	Reduction in water usage per tonne of produce		

2.	Measures aimed at reducing	the environmental impact of water	usage		
	<u>Justification</u> : contribute to water savi seasonality of water abstraction in an	ng, or (in the case of 2.1) changing the environmentally beneficial way			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
			equipment necessary to the preparation and implementation of the plan.		
2.5.	Transition from spray gun to drip irrigation;	Installation of a drip irrigation system in replacement of spray gun irrigation system;	Expenditure related to the investment made for the installation of the drip irrigation system in replacement of		
		Use of the new irrigation system as intended.	spray gun irrigation system		
2.6.	Improved irrigation systems, including purchase/lease of pumps, pipes and other equipment (irrigation installations resulting in net	<ul><li>Installation of the improvements to the existing irrigation system;</li><li>Use of the improved irrigation system</li></ul>	Expenditure related to the investment or to the lease of the improvements installed to the existing irrigation system.		
	increases of water consumption are excluded)	as intended;			

	Justification: Contributing to maintain air, water and soil quality				
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
3.1.	Conversion to integrated production	<ul> <li>Application of integrated production methods compliant with the requirements of the LEAF Marque, and the Gold Standard of Nature's Choice (Tesco's)</li> <li>Certification by a recognised certification body (obligatory requirement not eligible for support) (*).</li> <li>Requirements related to the duration of the action, as indicated in paragraphs 45 and 46, are applicable.</li> <li>(*) Integrated production certification could be eligible for support under actions aimed at improving or maintaining product quality.</li> </ul>	Additional costs and income foregone related to the conversion from the conventional production methods (compliant with the baseline/reference level requirements) to integrated production methods (compliant with the requirements of the LEAF scheme and/or other schemes to be specified) determined on a real cost basis.  The calculation of the additional costs will take account of possible cost savings resulting from the action (e.g. reduced use of plant protection products, fertilisers and water) and, possible higher prices for products.	Reduction in liquid or gaseous emissions or in spray drift	Reduction in volume or environmental impact of liquid or gaseous emissions

3.	Measures aimed at preventi	ng emissions into air, water or soil			
	<u>Justification</u> : Contributing to maintain air, water and soil quality				
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
3.2.	Conversion to organic production	<ul> <li>Application of organic production methods compliant with the provisions of Council Regulation (EC) 2092/91 (of Council Regulation (EC) 834/2007 from 01/01/2009);</li> <li>Inscription to the national organic production system, in accordance to Reg.(EC) 2092/91 and, from 01/01/08 2009, with of Reg. (EC) 834/2007 (obligatory requirement not eligible for support);</li> <li>Certification by a recognised organic certification body (obligatory requirement not eligible for support) (*).</li> <li>Requirements related to the duration of the action, as indicated in paragraphs 45 and 46, are applicable.</li> <li>(*) Organic certification could be eligible for support under actions aimed at improving or maintaining product quality.</li> </ul>	Additional costs and income foregone related to the conversion from the conventional production methods (compliant with the baseline/reference level requirements) to organic production methods (compliant with the provisions of Council Regulation (EC) 2092/91 or, from 01/01/2009, the provisions of Council Regulation (EC) 834/2007) determined on a real cost basis.  The calculation of the additional costs will take account of possible cost savings resulting from the action (e.g. reduced use of plant protection products, fertilisers and water) and possible higher price for products.		

3.	Measures aimed at preventir	g emissions into air, water or soil			
	Justification: Contributing to mainta	in air, water and soil quality			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
3.3	Reduction in use of fertilisers	- Reduce the use of fertilisers so as to achieve the pre-defined minimum reduction target (*).	Additional costs and income foregone resulting from the action determined on a real cost basis.		
		(*) As for agro-environmental measures a minimum reduction target of 30% is applicable. National/regional authorities may define higher minimum target.	The calculation of the additional costs will take account of possible cost savings resulting from the action (e.g. reduced volume of		
		The reference level for the reduction is compliance with the minimum requirements for fertiliser use and other obligatory requirements concerning the use of fertilisers established by the national legislation, including the	fertilisers used, possible reduced costs for fertiliser distribution).		
		legislation transposing the Nitrate Directive (Dir. 91/676/EEC) and the Water Framework Directive (Directive 2000/60/EC).			
		Requirements related to the duration of the action, as indicated in paragraphs 45 and 46, are applicable.			
3.4.	Reduction in use of plant protection products, including reductions in the use of fungicides, late harvest sprays and dipping agents via the	The reference level for the reduction is compliance with the minimum requirements for plant protection product use and other relevant obligatory	Additional costs and income foregone resulting from the action, determined on a real cost basis.		

Justification: Contributing to m	aintain air, water and soil quality			
Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
use of storage processes and ripening regulators;	requirements concerning the use of plant protection products established by the national legislation, including the legislation transposing the Dir. 91/414/EEC).  Requirements related to the duration of the action, as indicated in paragraphs 44 and 45, are applicable.  Where a producer organisation wishes to use natural gases to control post harvest storage and shelf life of crops instead of recognised chemical treatments, the marginal extra costs of crop treatment can be claimed over and above drenching costs.  The PO should indicate the active ingredients it wishes to remove from its crops and the PO should subsequently demonstrate via baseline and future crop residue tests a reduction in crop residues at the point of sale.	The calculation of the additional costs will take account of possible cost savings (e.g. reduced volume of plant protection products used, possible reduced costs for their distribution).and possible additional income (sale of products complying with marketing standards) resulting from the action.		

3.	Measures aimed at preventin	g emissions into air, water or soil			
	Justification: Contributing to maintai	n air, water and soil quality			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
3.5.	Reduction in use of plant protection products via new biological control methods	<ul> <li>Purchase and use of organic plant protection materials, such as pheromones and predators</li> <li>Purchase and use of grafted-plants (on tolerant/resistant varieties), where it can be reasonably be expected to result in a reduction in the use of plant protection products or soil disinfectants (*)</li> <li>Planting and cultivation of biocidal crops, as well as companion planting, where it can be reasonably be expected to result in a reduction in the use of plant protection products (*)</li> <li>Requirements related to the duration of the action, as indicated in paragraphs 45 and 46, are applicable.</li> <li>(*) Eligible crops and, where appropriate, tolerant/resistant varieties concerned must be defined by reference to reputable, published scientific data. These data must also include clear indications of the types of plant protection products and soil disinfectant the use of which could be</li> </ul>	Additional costs and income foregone resulting from the action, determined on a real cost basis.  The calculation of the additional costs will take account of possible cost savings resulting from the action (e.g. reduced volume of plant protection products used, possible reduced costs for their distribution).		

3.	Measures aimed at preventing emissions into air, water or soil					
	Justification: Contributing to maintai	n air, water and soil quality				
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement	
		reduced.				
3.6.	Reduction in use of plant protection products via the installation of finemesh crop protection netting;	- Purchase and installation of fine-mesh crop protection netting.	Expenditure related to the purchase and installation of fine-mesh crop protection netting.			
3.7.	Installations of waste water treatment systems, beyond compliance with legal mandatory	- Installation of a waste water treatment system;  - Use of the installation as intended.	Expenditure related to the investment made on the waste water treatment system	_		
3.8.	requirements  Purchase/lease of equipment for control of the quality of waste water produced, where complementary to action 3.7.	- Use of the installation as intended.  - Purchase/lease of equipment for control of the quality of waste water produced;  - Use of the equipment as intended.	Expenditure related to the investment made or to the lease of the equipment.	-		

4.	Measures aimed at the re-use agricultural waste	of crop remains and/or other org	anic residues or at contrik	outing to recove	ery of
	Justification: Reduce waste and land	Hill			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
4.1.	Composting	Putting in place of a composting installation proportionate to the volume of organic residues produced by the farmer or by the PO, and      use and/or sale of the compost produced	Expenditure related to the investment made on the composting installation	No of members benefiting;	Tonnes removed from landfill and, for anaerobic digestion, reduction in greenhouse gases (particularly
4.2.	Actions in support to use and sale of the compost produced, where complementary to composting	<ul> <li>Purchase, or renting/leasing, of mushroom compost bagging machines;</li> <li>Use of the machines as intended.</li> <li>Only eligible where it contributes to wider objectives of producing re-usable compost for sale or for other use</li> </ul>	Expenditure related to the investment made or to the renting/lease of the machines		methane) plus energy production
4.3.	Anaerobic digestion of PO crop residues which are not compostable	<ul> <li>Putting in place an anaerobic digestion installation;</li> <li>Use of the installation as intended.</li> <li>For eligibility for support, the installation must be linked to a PO facility and must be related to reduction and management of a PO's waste</li> </ul>	Expenditure related to the investment made on the anaerobic digestion installation  Eligible expenditure limited at 40% of costs		

4.	Measures aimed at the re-use agricultural waste	e of crop remains and/or other orga	anic residues or at contrib	outing to recove	ery of
	Justification: Reduce waste and lan	dfill			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
4.4.	Actions to help PO members to reuse spent growing mediums, and plant/crop remains	<ul><li>(a) Use of spent growing mediums as soil improvers.</li><li>(b) Use of plant/crop remains for mulching</li></ul>	Additional costs and income foregone resulting from the action determined on a real cost basis.  The calculation of the additional costs will take account of possible cost savings resulting from the action (e.g. reduced volume of fertilisers used, possible reduced costs for fertiliser distribution).	No of members benefiting	measurement
4.5.	Actions to help PO members to dispose of spent growing mediums and/or plant/crop remains more sustainably	Spent mushroom compost bagged and marketed as peat replacement  Separation of waste plastic material  Use of glasshouse waste as a soil conditioner, or as biomass  Eligibility is limited to commitments going beyond the mandatory requirements established by the national legislation waste.	Additional costs and income foregone resulting from the action determined on a real cost basis.		

4.	Measures aimed at the re-use agricultural waste	e of crop remains and/or other orga	anic residues or at contrib	uting to recove	ery of
	Justification: Reduce waste and lan	dfill			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
4.6.	Actions to contribute to recycling of agricultural plastics	<ul> <li>Plastic waste collection, sorting and transport to an authorised recycling institution</li> <li>Having a contract with an authorised recycling institution (requirement not eligible for support)</li> <li>Eligibility is limited to commitments going beyond the mandatory requirements established by the national legislation waste.</li> </ul>	Additional costs resulting from the action determined on a real cost basis.	No of members benefiting	
4.7.	Other actions to help PO and/or its members to return incidental waste to a reuse or recycling stream, where complementary to environmental actions 4.4., 4.5 or 4.6.	- Establishing of a suitable place for the disposal of incidental waste;  - Purchase and use of equipment and machinery for the storage and preliminary treatment of waste;  Eligibility is limited to commitments going beyond the mandatory requirements established by the national legislation waste.	Expenditure related to the investments made.		

5.	Environmental management	of packaging					
	Justification: Reduce waste and lan	dfill					
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement		
5.1.	Introduction and use of new, lower environmental impact, packing materials );	- Purchase and use of new, lower environmental impact, packing materials (e.g. biodegradable plastics; certified wooden crates) (*)  - Introducing the infrastructure/ machinery to facilitate such change  (*) Eligibility for support is limited to packaging compliant with the essential requirements defined by the Directive 94/62/EC	Additional costs of the new packing material (*)  Expenditure related to investments made on infrastructure/machinery  (*) compared with the cost of standard packaging compliant with the essential requirements defined by the Directive 94/62/EC	No of members using; times of use, no of journeys; cost savings in collection of packaging waste, and in costs of sorting and transportation to an authorised	Tonnes and type of packaging used, increase in lifespan, tonnes of waste saved		
5.2.	Actions to contribute to recycling of recyclable packaging	<ul> <li>Use of recyclable packaging compliant with the essential requirements defined by the Directive 94/62/EC (requirement non eligible for support);</li> <li>Taking directly or indirectly charge of activities contributing to recycling of recyclable packaging (such as collection, sorting and transport of the recyclable packaging waste to an authorised recycling installation).</li> </ul>	Costs related to the collection, sorting and transport of the packaging waste to an authorised recycling installation, determined on a real cost basis.	recycling institution			
5.3.	Actions to contribute to improved re use of reusable packaging	<ul> <li>Use of reusable packaging compliant with the essential requirements defined by the Directive 94/62/EC (requirement non eligible for support);</li> </ul>	Costs related to the collection, sorting, cleaning and transport of the reusable packaging for its further reuse determined				

5.	Environmental management of packaging					
	Justification: Reduce waste and lan	dfill				
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement	
		<ul> <li>Taking directly or indirectly charge of activities contributing to reuse of reusable packaging (such as collection, sorting, cleaning and transport of the reusable packaging for its further reuse).</li> </ul>	on a real cost basis.			
5.4.	Actions to reduce the volume of plastic packaging material used by means of heat-sealer machines	<ul><li>Purchase of heat-sealer machines;</li><li>Use of the machines as intended.</li></ul>	- Expenditure related to the investment made.			

6.	Measures aimed at protecting	g the landscape, natural habitats a	nd biodiversity		
	Justification: Maintenance and/or im	nprovement in biodiversity			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
6.1.	Maintenance of uncultivated field margins, uncultivated areas for the encouragement of bumble bees, or beetle banks	<ul> <li>Maintenance of the uncultivated field margins, uncultivated areas for the encouragement of bumble bees, or beetle banks.</li> <li>Requirements related to the duration of the action, as indicated in paragraphs 45 and 46, are applicable.</li> <li>Eligibility is limited to commitments going beyond the GAEC standards and other relevant mandatory requirements established by the national legislation.</li> </ul>	Additional costs and income foregone resulting from the action determined on a real cost basis.	Species benefiting	Maintenance or increase of numbers of plant and animal species
6.2.	Conversion of arable land into permanent pasture	- Converting arable land into permanent pasture.  Requirements related to the duration of the action, as indicated in paragraphs 44 and 45, are applicable.  Eligibility is limited to commitments going beyond the GAEC standards and other relevant mandatory requirements established by the Community or national legislation.	Additional costs and income foregone resulting from the action determined on a real cost basis.		

7.	Measures aimed at preventing	g soil erosion and promoting cons	servation of soils		
	Justification: Prevent soil blows and	erosion			
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement
7.1.	Actions to prevent soil erosion and promote conservation of soils	<ul> <li>Undertaking activities that contribute to preventing soil erosion and to soil conservation (e.g. mulching; maintenance of permanently vegetated areas, uncultivated contour belts; terrace building; adoption of specific conservation tillage practices; use of renewable products such as coir as an alternative to peat, as a measure to reduce pressure on endangered peatlands).</li> <li>Requirements related to the duration of the action, as indicated in paragraphs 44 and 45, are applicable.</li> <li>Eligibility is limited to commitments going beyond the GAEC standards and other relevant mandatory requirements established by the national legislation.</li> <li>(Note: the eligibility of any of the actions selected under Measures No 6 and 7 may be affected by modifications to cross-compliance requirements resulting</li> </ul>	Additional costs and income foregone resulting from the action, a "real costs" approach being applicable.	Areas and members benefiting	measurement

	Justification: Prevent soil blows and	erosion				
	Environmental actions	Commitments	Eligible expenditure	Indicator	Definition and measurement	
7.2.	Acquisition of special equipment/machinery, where complementary and necessary to actions to prevent soil erosion and promote conservation of soils (8.1.)	Purchase/lease of special equipment necessary to implementing actions aimed at preventing soil erosion and contributing to soil conservation (e.g. ridge tying equipment, bedforming and clod separation equipment to manage land on an annual basis, and equipment to flood fields pre-cropping)      Use of that equipment as intended.	Expenditure related to the investments made or to the renting/lease of the equipment/machinery concerned			

# <u>General requirements for an environmental action selected under an operational programme</u>

- *EF41.* The environmental actions selected under an operational programme must:
- respect the requirements for agri-environmental payments set out in the first subparagraph of Article 39(3) of Regulation (EC) No 1698/2005, i.e. entail commitments going beyond the relevant baseline/reference level applicable, which includes:
  - (a) the relevant mandatory standards established pursuant to Articles 4 and 5 of and Annexes III and IV to Regulation (EC) No 1782/2003,
  - (b) the minimum requirements for fertiliser and plant protection product use established by national legislation, and
  - (c) other relevant mandatory requirements established by national legislation;
- conform to this National Framework;
- be compatible and complementary with the other environmental actions implemented under the operational programme and, where appropriate, with the agri-environmental commitments, supported under the relevant Rural Development programme, implemented by the members of the Producer Organisation.
- EF42. 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(s) or Plan for the part(s) of the United Kingdom concerned, the level of support must take account of the specific income foregone and additional costs resulting from the combination.
- EF43. Support for the environmental actions selected under an operational programme, being intended to cover additional costs and income foregone resulting from the actions, will be subject to modification in cases where amendments are made to the relevant reference level (i.e., the set of standards beyond which an environmental commitment must go).

## Duration of environmental actions

- EF44. Normally the duration of an environmental action will be the same as the duration of the operational programme of which it forms part. However, in cases where an environmental action (other than involving investments) is similar to an agri-environmental measure included under the Rural Development Programmes in the different parts of the United Kingdom (e.g. landscape and habitat protection or soil protection) and where the duration is critical for the attainment of the expected environmental benefits, the duration which should apply will be the same as it applies to the similar agri-environmental measure concerned.
- EF45. Where the duration of the operational programme is shorter (2 or 3 years) than the duration referred to above, the PO will be required 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 Programmes, except for duly justified reasons, and in particular based on the results of the mid-term evaluation of the operational programme provided for in Article 127(3) of Commission Regulation (EC) No 1580/2007.

EF46. Where appropriate, this requirement will also apply to other environmental actions included in the texts of the United Kingdom's framework for years subsequent to 2008.

# Several options for the same type of action

*EF47.* For each of the measures indicated in paragraph 36, the Table following paragraph 40 indicates several possible options for environmental actions. In most cases any of these options may be combined under the same operational programme and jointly implemented by a PO's members. However, in some instances, two of the alternative options given for the same measure are likely to be sufficiently closely related to one another that they are regarded as incompatible, and hence would not both be eligible to be included in the same operational programme.

EF48. Whether that situation will arise in practice will depend on the precise combination of specific commitments chosen by a PO to implement the actions in question in its proposal for an operational programme. The competent authority will indicate to the PO whether it has chosen mutually incompatible environmental actions.

## Complementary commitments in support to environmental actions

EF49. Training, advice and/or technical assistance, if implemented alone, cannot generate direct environmental benefits. However, they can be essential for feasibility and effectiveness of certain environmental actions. The same may be said for other types of measures, such as energy/fuel review or audit, which can contribute to identification of needs, definition of priorities and design of relevant environmental actions to be implemented at the level of a PO or its members. A basic requirement for eligibility for support of these types of actions is, therefore, that they are implemented in connection with environmental actions that can be expected to generate direct environmental benefits. For eligibility for support, the following set of requirements must be met:

a) The action is intended to complement (i.e. accompany and be associated with) other environmental actions included in the National Framework, which must therefore be included in the operational programme of the PO, and is specifically targeted to reinforce the effects of these actions. The actions concerned must be specified in the operational programme of the PO.

- b) The (technical assistance, advice, training, audit) activities must be entrusted to additional (internal or external) qualified personnel.
- c) The operational programme must indicate the specific tasks that the additional qualified personnel are required to perform.

# Avoidance of double funding

EF51. As regards the possible overlapping of environmental actions covered by this Framework with certain measures included in the United Kingdom's Rural Development Programmes, the criteria and administrative rules applied in the United Kingdom's Rural Development Programmes, aimed at ensuring that a beneficiary may receive support for a given operation only under one scheme, are covered in detail in other parts of the United Kingdom's National Strategy for sustainable operational programmes. (Section 3 refers).