MILIEUKADER VOOR MILIEUACTIES

Framework for environmental actions

///////	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	//////
CONT	TENTS	11
1 2	Objectives and priorities in Flanders Conditions for the national environmental framework	
	Operational programmes and general conditions Control Actions within the environmental framework	4 8 8
Action Action Action Action	er 1 –integrated pest management practices 1 - Functional agro-biodiversity (Uniform principle IPM No. 1f) 1 - Resistant seeds, coated seeds, grafted plants and related (Uniform principle IPM No. 1c,4,5 6) 1 3 - Sustainable products/techniques to prevent and control diseases and pests (Uniform principle IPM I 1f,4,5,6,7) 1 4 - Management and improvement of the water quality (Uniform principle IPM No. 1d,5,6) 1 5 – Observation and warning systems and tools to support (Uniform principle IPM No. 2,3,5 and 8)	9 11 NO. 13 15 17
<i>Cluste</i> Action	er 2 – Energy and water management n 6 - Energy saving (energy efficiency)/ renewable sources n 7 – Sustainable water management	<i>20</i> 20 22
Action	er 3 – Waste and nutrient management n 8 - Sustainable soil management n 9 – Sustainable waste management	<i>24</i> 24 28
Cluste	er <i>4 – Clustering of companies</i> n 10 – Collective investments pertaining to environmentally friendly actions in the context of company clustering	<i>30</i> 30
Appe	ndices	33



DEPARTEMENT LANDBOUW & VISSERIJ

Composition Department of Agriculture and Fisheries

Author(s) Market Unit GMO-Beleid-Advies@lv.vlaanderen.be

Date 28 May 2018

Version 2019



1 OBICTVS ANDRORTIS INFLANDIS

In common with other sectors, the agricultural sector must produce in a sustainable and socially responsible way. Important efforts have been made until now (for example Flemish Climate Policy Plan, integrated pest management, etc.) which are partly thanks to the cooperative character of the sector (for example, Responsibly Fresh). Further efforts for making the fruit and vegetables sector more sustainable are, and remain, necessary. It is thus important to continue to undertake actions which allow the fruit and vegetable sector to work in a more sustainable way.

Flanders wants to focus on various action points within this environmental framework in order to facilitate maximum sustainability within the horticultural sector and to pay attention to the various sub-sectors within the fruit and vegetable sector. First, the focus will be on stimulating the biodiversity and on avoiding and the more efficient deployment of the use of plant protection products. Maximum attention will be given hereby to the general principles of integrated pest management (IPM) as described in appendix III of Directive 2009/128/EC and of the ecological production in the fruit and vegetable sector.

Another important action point is sustainable water management. Customised efficient use of water must be stimulated further. In addition, the water quality must be protected/monitored, adjusted to the needs and improved in order in this way to take sustainability further. A good water housekeeping is, after all, important to maintain the natural ecosystems and biotopes and to keep biodiversity at the right level.

In addition to this, focus will be placed on sustainable soil management since good, fertile agricultural land is a non-renewable natural resource for sustainable and profitable agriculture. There is still a long road ahead in this domain. Flanders also has ambitious objectives with regard to the energy policy, whereby we are pursuing a higher share of energy from renewable energy sources and a decline in energy consumption. Ideally, all energy should be derived from renewables. A sustainable society also demands attention be paid to the circular economy whereby closing material cycles takes a central position. The focus is therefore on the reuse and efficient recycling systems. Further encouragement for environmentally friendly measures to prevent waste is also necessary. In order to be able to achieve these high ambitions, investments fitting within the above mentioned actions are also possible whereby companies cluster themselves to make expensive but environmentally friendly investments attainable.

The actions described above will allow to achieve a more sustainable fruit and vegetables sector in Flanders which both territorially and ecologically are more balanced, climate friendly and stable, competitive and innovative. Furthermore, this contributes to a fruit and vegetable sector that exudes a positive image to the consumer and to society. The expectations of the consumer, retail and society in the area of environmental demands are high. This stimulates the growers to serve society by the introduction or further application of production methods or techniques that are consistent with the protection and improvement of the environment, the landscape and its characteristics, natural resources, soil and genetic diversity.

To satisfy all these objectives, an important role is set aside for organisations of producers within the fruit and vegetable sector. Below we describe first the general conditions for the national environmental framework; in the second part, the various actions are explained.

2 CONFIONS FOR THE NATIONAL ENLIPONMENTAL FRAME BOOK

This chapter contains the national or regional guidelines for environmental measures as intended in article 36 of the Directive (EG) no. 1308/2013 and must be read in conjunction with the appendices in part 4 of this national strategy as stated below and the information that can be found on the websites http://lv.vlaanderen.be/nl/landbouwbeleid/plattelandsontwikkeling (Programming Document for Rural Development - PDRDIII)

These environmental guidelines form an integral part of the national strategy for sustainable operational programmes.

2.1 OPERATIONAL PROGRAMMES AND GENERAL CONDITIONS

Each operational programmes must contain at least two environmental actions or at least 10% of the approved expenditure must involve environmental measures.

In Flanders, at least two environmental actions means:

- ► two environmental actions at producer organisation (PO) level or;
- two environmental actions at producer level where at least 30% of the growers participate in each action (or growers who represent at least 30% of the WAP) or:
- several environmental actions at producer level: of which two have the participation of at least 20% of the growers (or growers who represent at least 20% of the WAP) and in total there must be an accumulated participation percentage of at least 60% (or at least 60% of the WAP) or;
- one environmental action of the level of PO + one environmental action at producer level where at least 30% of the growers participate (or growers who represent at least 30% of the WAP) or:
- one environmental action at the level of PO + several environmental actions at producer level: of which at least 20% of the growers participate (or growers who represent 20% of the WAP) and in total there must be an accumulated participation percentage of at least 30% (or at least 30% of the WAP).

An action at PO level (or in the case of a cluster of holdings) is only considered fully-fledged if they fall within action 4 (management and improvement of the water quality), action 5 (observations and warning systems and assistive technologies for support), action 6 lenergy saving (energy efficiency)/ renewable sources], action 7 (sustainable water management), action 8 (sustainable soil management), action 9 (sustainable waste management) or action 10 (Collective investments pertaining to environmentally friendly actions in the context of clustering holdings) and if they have a sufficient scale. Other environmental actions may be performed at PO level but do not count in the calculation of the number of environmental actions. Environmental actions that are only permitted at PO level within the national strategy are indicated in the description of the actions.

When at least 80% of the producers affiliated to a producer organisation have entered into one or more identical agro-environmental and climate commitments intended in article 28, paragraph 3 of Regulation (EU) no. 1305/2013, each of the commitments also count as an environmental action.

When the long term objectives and expected benefits for multiannual commitments of environmental actions cannot be realised because of the interruption of the measure, the Union financial assistance shall be recovered and reimbursed to the EAGF.

When at the end of the operational programme, the conditions of the minimum environmental measures are not met, the total assistance amount for the last year of the operational programme will be reduced according to the proportion of the amount in expenditure that has not enough been spent on environmental actions.

Example: During 5 years, the PO gets a yearly support of 100.000 €. In total, the support is 500.000 euro which corresponds with 1.000.000 euro expenses for the five-year program. The PO has just done one environmental action with the following expenses: 20.000 euro in year 1, 19.500 euro in year 2, 20.000 euro in year 3, 19.000 euro in year 4 and 20.000 euro in year 5. In total, the PO spent 98.500 euro at environmental actions. This is 9.85% of the total expenses which is 0.15% less than 10%. The penalty is 0.15% of 500.000 euro, which is 750 euro. The support of the last year (100.000 euro) will be diminished with 750 euro and is thus 99.250 euro.

The environmental actions that are developed by the producer organisations of association of producer organisations must also satisfy the general conditions of the actions of the regulations and national strategy for sustainable operational programmes which may be subsidised (these refer to i.e. administration and staff costs (i.e. qualification), investments at the level of the producer organisations and/or individual holdings, transnational actions, actions in the context of an interbranch basis, outsourcing contracts, etc.).

Furthermore, the following general conditions concerning environmental measures apply:

- Measures in the context of the operational programmes must be supralegislative measures; this is also applicable to the environmental measures.
- Environmental actions satisfy the conditions as described in article 33 of regulation (EU) no. 1308/2013 and article 3 of the implementation regulation 2017/892.
- The costs of environmental measures in an operational programme are exclusively the additional costs, calculated as the difference between the conventional costs and the costs actually incurred, and income foregone resulting from an action excluding additional income and costs savings.
- Fixed-rate standard fees or scales of unit costs, as stated in article 31, par. 2 of Regulation (EU) no. 2017/891 can be determined for specific costs for environmental actions. These fees shall be assessed at least once every five years. If the framework for the legal obligations were to be amended during the course of the programme, this can have consequences for the eligibility for a subsidy of certain actions and types of costs.
- Different environmental actions may be combined with each other on the condition that they supplement each other and are mutually compatible. In the event of a combination of environmental actions other than investments in material assets, the specific lost income and the specific additional costs which are a result of the combination are taken into account when determining the level of support.
- Environmental actions with commitments to reduce the use of fertilisers, plant protection products or other production products shall only be accepted if the application of the restrictions can be assessed in a way that gives certainty that the commitments are being satisfied.
- ► The actions must meet the conditions of Regulation (EU) no. 1305/2013 together with the conditions regarding complementarity, consistency and conformity as intended in article 3 of the regulation. In other words, environmental actions in rural development and in the

operational programmes must, in that particular case, supplement and be mutually compatible with each other and contribute to an agricultural sector that both territorially and ecologically is more balanced, climate friendly and sustainable, and is competitive and innovative. Some measures can strengthen the objectives of pillar 2.

- When in the context of a rural development programme or rural development programmes assistance is given to specific actions that are identical to actions that are eligible for assistance in the context of the operational programmes, the beneficiary may only receive assistance pursuant to one regulation for a particular action.
- Environmental actions that are identical to agro-environmental commitments or commitments in the area of organic farming and for which assistance is given in the context of a rural development programme, have the same duration as those commitments. When the action has a longer duration than the original operational programme, the action is continued in a following operational programme. Assistance for these environmental actions remains limited to maximum amounts which are stated in appendix II of the Regulation 1305/2013 for agro-environmental payments or for payments for organic farming.
- The following investments, advantageous for the environment as intended in paragraph 3 of article 3 of regulation (EU) no. 892/2017, are eligible for assistance:
 - Investments that can result in a reduction of at least 15% (calculated over the fiscal depreciation period of the investment compared to the situation existing previously) in:
 - the use of production resources that are non-renewable natural resources, such as water or fossil fuel, or a possible source of environmental pollution, such as fertilisers, plant protection products or certain types of energy sources;
 - the emission of air, ground or water polluting substances in the production process;
 - the production of waste, including wastewater, in the production process.
 - Investments that can result in a reduction of at least 7% instead of the 15% stated above, on condition that those investments deliver at least one additional environmental benefit. This additional environmental benefit should be assessed from case to case.
 - \circ Investments aimed to achieve a reduction in water consumption:
 - that provide a reduction of at least 5% of the water consumption in drip irrigation or similar systems compared to the consumption before the investment, and
 - which do not result in a net expansion of the irrigation area, unless the total water consumption for irrigation of the entire farm, also after expansion of the area, is not higher than the average water consumption in the period of five years before the investment.

The expected reduction and, where appropriate, the expected additional environmental benefit are shown in advance with the project specifications or other technical documents which the producer organisation or union of producer organisations submits when submitting the operational programme or amending the programme. The results that can be achieved with the investment must be substantiated by the technical documents or by an independent qualified organisation (e.g. recognised practical centres) or other institution or experts, approved by the competent entity.

 Investments which contribute to soil protection, water or energy savings, the improvement of the management of the water quality, of habitats or of the biodiversity protection, the mitigation of climate change and the reduction or a better management of waste, even if the contribution to this cannot be quantified. The

producer organisation or association of producer organisations supplies, when they submit the proposed operational programme or the amendment of such a plan for approval, the proof of the expected positive contribution to one or more environmental objectives. The results that can be achieved with the investment must be substantiated by a report drawn up by an independent qualified organisation (e.g. recognised practical centres) or other institution or experts, approved by the competent entity.

- Investments in the form of energy generation capacity systems if the amount of energy generated does not exceed the amount that can be used ex ante on a yearly basis for the actions related to fruit and vegetables (unless there is an incidental over capacity).
- Any certification costs relating to organic or integrated production can be included in cluster 'quality' containing actions aimed at improving or maintaining product quality. Consultancy and monitoring costs should be included under cluster 'training and advisory services'. Additional conditions shall be included in the respective clusters.
- Permitted environmentally friendly actions can differ between the member states. If actions are carried out outside the Flemish territory, the approval for these actions depends on the legislation applicable in the member State/region concerned.
- Since 1 January 2014, all professional users of plant protection products must apply the IPM legislation. Based on the 8 IPM guidelines, directives are set up within Flanders for the various vegetable sectors to ensure compliance with the IPM demands. Environmental actions that are stated in the IPM guidelines checklist (https://lv.vlaanderen.be/sites/default/files/attachments/ipm_richtlijnen_-____checklist_2017_november_met_kaftdocx_2.pdf) will (in common with other actions) first be checked whether they are supralegistive measures.
- Organic farming is not stated as a separate action since the efforts for this fit in with various environmental actions in this environmental framework such as action 1 (agro-functional biodiversity), action 2 (resistant seeds, coated seeds, grafted plants and related), action 3 (sustainable resources/techniques for the prevention and combating of diseases and pests), action 4 (management and improvement of the water quality), action 5 (observations and warning systems and assistive technologies for support) and action 8 (sustainable soil management).

All actions at producer level are listed in appendix 1 of part 4 of the national strategy. To add actions to this list, the PO can submit an application to the competent agency. This application must be accompanied by a detailed explanation and sufficient substantiation. After studying the application and discussion at the technical consultation, the competent services will include or not include the action in the appendix.

When costs are contributed for environmental measures at the level of the producer, the application of these measures (and their introduction into the Operational Programme) must be framed within a specific action and the objectives must be properly described in the programme. A list with specific measures will also be added to the programme.

The reporting contains on the one hand the results of the introduction of these measures, the trends in the application thereof, the number of participants, and the opportunities still present. On the other, the cost structure is indicated, which guarantees the necessary transparency concerning the costs per crop and per participant (producer).

2.2 CONTROL

Cumulat	Cumulative funding conditions						
scenario	CMO objectives	National guidelines	Supralegislative measure	Agro-environmental measures + same compensation	Other environmental measure	Additional costs	Eligible for a grant?
1	Х	Х	Х	Х			yes
2	Х	Х	Х		Х	Х	yes
3	Х	Х	Х		Х		no
4							no

The assessment of the environmental measures shall take place as follows:

Scenario 1: The environmental measure complies with the CMO objectives, complies with the national guidelines, is supralegislative (national or regional), is an agro-environmental measures such as in PDRD, satisfies the additional commitments and conditions, the same compensation as in PDRD, reporting and invoicing are in order \rightarrow eligible for a grant.

Scenario 2: The environmental measure is not an agro-environmental measure as in the PDRD but is a different environmental measure, this complies with the additional commitments and conditions, there are specific additional costs, the reporting and invoicing are in order \rightarrow eligible for a grant.

Scenario 3: All conditions are met but there are no additional costs \rightarrow not eligible for a grant

Scenario 4: The environmental measure is not an agro-environmental measure nor is it any other environmental measure or if it is another environmental measure, it does not satisfy one of the other demands --> not eligible for a grant.

When checking the environmental measures, the competent services will cooperate with the services responsible for other agro-environmental measures and investment measures in the framework of rural development to guard over excluding possible double funding of these measures and those in the operational programmes. This also allows the avoidance of over compensation in the event of combination of measures.

2.3 ACTIONS WITHIN THE ENVIRONMENTAL FRAMEWORK

For all actions within this framework, the general conditions and commitments as well as the conditions and obligations per type costs (e.g. collective investments for individual businesses, consumables, ...) are applicable. Concerning the input and output indicators per action and outcome indicators for these environmental actions, reference is made to the relevant chapter in the national strategy.

Cluster 1 – integrated pest management practices

In this cluster, the objectives are to encourage a careful consideration of all available plant protection methods and subsequent integration of appropriate measures that discourage the development of populations of harmful organisms, to keep the use of plant protection products and other forms of intervention to levels that are economically and ecologically justified and to reduce or minimise risks to human health and the environment. 'Integrated pest management' emphasises the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.. The various actions in this cluster shall be done following the IPM principles, as described in appendix III of the European Directive 2009/128 establishing a framework for community action to achieve the sustainable use of pesticides.

Actio	on 1 - Functional agro-biodiversity (Uniform principle IPM No. 1f)
Objectives and motivation of the action	Agriculture and biodiversity are inextricably connected with each other and need each other. Biodiversity is largely dependent on agriculture and agricultural landscapes, think of meadow and farmland birds. Conversely, biodiversity can bring the farmer a lot of benefits: useful insects help combat pests so that less plant protection products have to be used, a healthy soil life contributes to a fertile soil, etc. This measure is deemed to mean the use of products for promoting the biodiversity in the fruit and vegetable farm, such as bee hotels, seed for flower borders, nesting boxes, etc.
	In addition to this action itself, attention is also given to biodiversity within actions 3, 4, 5, 7 and 8.
Commitment	Promotion of biodiversity contributes positively to
	1 Soil eco-system processes
	2. Pollination
	3. Natural pest control
	4. Interaction with (semi) natural vegetation
	5. Genetic biodiversity
	This action contributes to the implementation of point 1f of the general principles of IPM as described in appendix III of the European Directive 2009/128 establishing a framework for community action to achieve the sustainable use of pesticides.

Expenditure eligible for funding and conditions	The entire cost is eligible for funding since this is equal to the additional costs.
	Only measures which have been proven to contribute to the biodiversity are eligible for subsidies.
	Examples of actions eligible for funding:
	- Seed material for flower borders/flower beds
	 Plant material for hedges, hedgerows and other landscape elements
	- Investments in machinery for maintenance of these landscape elements and flower borders
	- Bee hotels, nesting boxes, perches and insect hotels
Obligations	The competent services request the following commitments or obligations from the producers and/or the producer organisation:
	- List of producers who participate/submit expenditure together with their agriculture number, invoice number and type of certificate (a certification of environmentally friendly production or of organic farming on the basis of externally monitored specifications;
	 The reporting contains the results and the trends per crop, the number of participants, the opportunities stil present, etc. in the use of these actions;
	- Possession of the detailed invoice (at least quantity and specification) and the registration of the used goods

Action 2 - Resistant	: seeds, coated seeds, grafted plants and related <mark>(Uniform principle IPM No. 1c,4,5</mark> 6)
Objectives and motivation of the action	The use of resistant varieties, coating of seeds or grafting of plants onto resistant rootstocks fits in a prevention strategy to minimise or avoid harm by pests and contributes to the IPM practices as part of an integrated approach. The cultivation of plants grafted onto resistant rootstocks reduces the risk of infection from mainly soil-borne root diseases and pests via the rootstock's resistance properties. Grafting is primarily applied to fruit vegetables. Resistant breeds are developed by breeding technics by closely screening the progeny for resistance properties. There are breeds on the market resistant to bacterial disease, fungal diseases, viruses and insects. Coated seed is seed encapsulated in a thin coating which contains a small amount of active substance of a plant protection product making much smaller amounts of active substance needed.
Commitment	Application of the techniques within this environmental action implies a considerable restriction in the use of chemical plant protection products. The consequence for the environment is that damage through residues of plant protection products in the plant, in the soil, in the air or in the surface water is limited or avoided. Seed coating, for example, can result in large savings in active ingredients, up to 99%. With resistant seed, a saving of 100% of the active substance has been achieved against disease or pests for which the resistance applies.
	This action contributes to the implementation of points <mark>1c,</mark> 4, 5 and 6 of the general principles of IPM as described in appendix III of the European Directive 2009/128 establishing a framework for Community action to achieve the sustainable use of pesticides.
Expenditure eligible for funding and conditions	The additional cost is eligible for funding and the amounts are shown in the table in appendix 3 in part 4 of the national strategy. Supplementary costs (additional costs) shall mean the specific costs which are calculated as the difference between the traditional and the costs actually made. Every five years, the additional cost is calculated and a maximum fixed cost is set per plant/seed by the competent services in consultation with recognised practical centres and possibly other research institutes. When calculating these costs, account is taken of possible savings when using the less sustainable alternative. This list will be evaluated at least annually. New resistances, coatings,which do not yet appear on the list can always be proposed for approval to the competent services.
	Examples of actions eligible for funding: - Resistant seeds

	 Coated seeds Grafted plants
Obligations	 The competent services request the following commitments or obligations from the producers and/or the producer organisation : List of producers who participate/submit expenditure together with their agriculture number, invoice number and type of certificate (a certification of environmentally friendly production or of organic farming on the basis of externally monitored specifications) and a statement of the cultivated surface area; The reporting contains the results and the trends per crop including the added value of this measure in an integrated pest management approach; the number of participants, the opportunities still present, etc. in the use of resistant seeds, coated seeds and grafted plants; Possession of the detailed invoice (at least quantity and specification) and the registration of the used substance.

Action 3 - Sustai	nable products/techniques to prevent and control diseases and pests (Uniform principle IPM No. 1f,4,5,6,7)
Objectives and motivation of the action	Environmentally friendly and organic products and techniques are products and techniques to prevent and control diseases and pests without using synthetic plant protection products (products/active substances). These are deemed to mean, among others: mechanical measures of cultivation, natural enemies, predators, pheromone confusion techniques, baits, thermal weed control, organic plant protection products, measures for catching pests, etc. The application of this action should be framed within a specific action and the objectives for their use must be described fully in the programme.
	The permitted organic products are in accordance with the Council regulation (EC) No. 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91, and the Commission regulations, especially Commission Regulation (EC) No 889/2008 of 5 september 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling products with regard to organic production, labelling and control and the national regulation concerning the use of PPP RC of 28 february 1994 concerning the conservation, commercialisation and use of PPP.
Commitment	The use of environmentally friendly and organic plant protection products and techniques implies that damage from residues of synthetic plant protection products in the crop, in the soil, in the air and in the surface water is avoided.
	This action contributes to the implementation of points <mark>1f,</mark> 4, 5 <mark>, 6</mark> and 7 of the general principles of integrated crop protection as described in appendix III of the European Directive 2009/128 establishing a framework for Community action to achieve the sustainable use of pesticides.
Expenditure eligible for funding and conditions	The additional cost is eligible for funding and the amounts are shown in the table in appendix 2 (products) and appendix 1 (mechanical measures of cultivation) in part 4 of the national strategy. These supplementary costs (additional costs) shall mean the specific costs which are calculated as the difference between the traditional and the costs actually made. Every five years, the additional cost will be calculated and for the calculation of the additional cost of this environmental action account will be taken of the possible saving of costs on the use of chemical plant protection product, the possible negative yield and the possible additional cost will be determined by the competent services in consultation with recognised practical research centres and possibly other research institutes. This list will be evaluated at least annually.

	 Examples of actions eligible for funding: Environmentally friendly and organic plant protection products and techniques (see list part 4): mechanical measures of cultivation natural enemies predators baits organic and environmentally friendly plant protection products measures for catching pests physical techniques feed for beneficials etc. Foils, nets and their rolling-up systems + enclosures against insects and damage by animals Nets for retaining the beneficials Seed material and analyses for organic nematodes control Sustainable animal repellent system and integrated rodent control Products and techniques which do not yet appear on the list can always be proposed for approval to the competent services.
Obligations	 The competent services request the following commitments or obligations from the producers and/or the producer organisation: List of producers who participate/submit expenditure together with their agriculture number, invoice number and type of certificate (a certification of environmentally friendly production or of organic farming on the basis of externally monitored specifications) and a statement of the cultivated surface area; The reporting contains the results and the trends per crop, the number of participants, the opportunities still present, etc. in the use of products and techniques; Possession of the detailed invoice (at least quantity and specification) and the registration of the used product/technique used.

Action 4 - Manage	ement and improvement of the water quality <mark>(Uniform principle IPM No. 1d,5,6)</mark>
Objectives and motivation of the action	 These are techniques which achieve a better water quality by: Avoiding point source pollution and environmentally friendly removal of spray residues Aids for sustainable application or avoidance of plant protection products Aids for sustainable fertilisation
	Specifically this includes drift reduction nozzles, precision fertilisation, section control techniques, specific equipment for the dosing of plant protection products, systems for the application of precision farming (e.g. GPS, analyses in the context of site-specific fertilisation), etc.
Commitment	This action implies a considerable reduction in the use of chemical plant protection products, the avoidance of point source pollution and the targeted application of fertilisers for the improvement of water quality. A good water quality is indispensable for the biodiversity, for the environment, for the soil, the air and to protect the water reserves.
	This action contributes to the implementation of points <mark>1d,</mark> 5 and 6 of the general principles of IPM as described in appendix III of the European Directive 2009/128 establishing a framework for Community action to achieve the sustainable use of pesticides.
Expenditure eligible for funding and conditions	The additional cost is eligible for funding. These supplementary costs (additional costs) shall mean the specific costs which are calculated as the difference between the traditional and the costs actually made. Every five years, the additional cost will be calculated. For the calculation of the additional cost associated with this environmental action, account is taken of the potential cost savings, the potential minus yield and the potential extra costs. This additional cost will be determined by the authorised services in consultation with recognised practical research centres and possibly other research institutes. This list will be evaluated at least annually.
	Investments in the context of this action are fully eligible for funding. For these investments a detailed justification with regard to the savings in the use of the fertilisers or plant protection products (at least 15%) must be supplied. The expected reduction and, where applicable, the expected additional environmental benefit, shall be

demonstrated ex ante through project specifications or other technical documents. A lower percentage is only possible if there are multiple environmental benefits, which must be assessed by the competent services in advance.

Examples of actions eligible for funding

- Avoiding point source pollution and environmentally friendly removal of spray residues
 - Closed transfer systems (type easy flow)
 - Bioremediation systems to remove spray residues on an environmentally friendly way (phytotank, biofilter, heliosec, sentinel, collective filling and rinsing place with a number of growers or at PO level)
 - Cleaning kit on the sprayer itself for cleaning the exterior
- Aids for sustainable application or avoidance of plant protection products
 - Drift reducing nozzles >50%
 - Steaming substrates/containers
 - Environmentally friendly algae killers
 - Machines for non-chemical weed control (e.g. mechanical weed control machines, vision based hoeing machines, etc.)
 - Mounting finger weeder or torsion weeder
 - Anti-root foil for woody soft fruits
 - Automatic section control systems on existing sprayer
 - Conversion of an existing spray boom in the context of drift reduction (e.g., allowing driving lower)
 - Windbreaks for drift reduction
 - Site-specific spraying with drones (within the legal framework)
 - GPS technology in the context of targeted sowing and application of plant protection products
- Aids for sustainable fertilisation
 - Section control techniques
 - Precision techniques such as fertilisation during sowing or planting, section spreading, site specific fertilisation during the hoeing and the site specific application of fertilisers.
 - Measuring devices and sensors to apply fertilisers site-specific: e.g. purchase of chlorophyll meters/nitrogen sensors.
 - GPS technology in the context of targeted sowing and application of fertilisers

Obligations	 The competent services request the following commitments or obligations from the producers and/or the producer organisation for the reporting: List of producers who participate/submit expenditure together with their agriculture number, invoice number and type of certificate (a certification of environmentally friendly production or of organic farming on the basis of externally monitored specifications); statement of the cultivated surface area; The reporting contains the results and the trends per crop, the number of participants, the opportunities still present, etc. in the use of products and techniques; Possession of the detailed invoice (at least quantity and specification) and the registration of the used product/technique used.
	product/technique used.

Action 5 – Observation and warning systems and tools to support Uniform principle IPM No. 2,3,5 and 8		
Objectives and motivation of the action	Observations and warnings are the sum of actions in which the development of diseases or pests in agricultural and horticultural crops is monitored and in which guidance pertaining to the appropriate time of control and crop protection strategy to be deployed is formulated.	
	Observation and warning systems help to facilitate targeted, sustainable pest control, avoid unnecessary treatments with chemical plant protection products (instead of traditional calendar spray treatments) and encourage sustainable alternatives. There are various observation methods for measuring disease or pest pressure according to the type of disease or pest, ranging from catching and counting insects to following the evolution of specific weather models. In some cases observations are made at a lot level, whilst for other diseases and pests the infection pressure is estimated based on several observation points within a larger area. These observations are conducted by independent, specialised services (qualified personnel). They also advise producers on the pest and/or disease pressure present (this prevents unnecessary spraying and inappropriate product use). Observation and warning systems for integrated crop protection have been developed for a variety of crops in the fruit and vegetable sector. A wide range of assistive technologies, which enable an extremely focused and sustainable application of disease and pest control, have also recently been made available in order to facilitate observations.	
	This action aims to encourage observation and warning systems and the tools that support them.	

Commitment	The use of this system implies a restriction on the use of chemical plant protection products and choosing for more sustainable plant protection products. The consequence for the environment is that damage caused by plant protection product residue in the crop, soil, air or surface water is reduced.
	This action contributes to the implementation of points 2, 3 and 8 of the general principles of IPM as described in Annex III of the 2009/128 European Directive establishing a framework for Community action in achieving the sustainable use of pesticides.
Expenditure eligible for funding and conditions	Expenditure is incurred at the service provision by independent specialist level (specialised personnel and consumer goods/investments for the observation of pests, collection of other data, such as weather data, and costs associated with the communication of the observation results) and at the supporting tools level. The additional cost is the total cost as visually monitoring by the producer involves no cost.
	Costs relating to advice on the products or methods to be adopted do not qualify as environmental action but are included within the 'training and advisory' cluster.
	Only observations and warnings performed by an independent specialised service, comprising staff that are specifically qualified for this system, are eligible for subsidy.
	 Examples of eligible actions Aids and technologies for monitoring and supporting observations and warnings Lenses for monitoring Apps/software/models for detection Sensor technology and cameras (potentially in combination with drones within the legislative framework) for pest recognition Plant sensors and technology (potentially in combination with drones within the legislative framework) in the context of plant health Instruments for supporting observations such as weather stations, etc. Observation and warning systems Investments for observation and warning systems Digitisation tools for integrated production

|--|

Cluster 2 – Energy and water management

Actio	n 6 - Energy saving (energy efficiency)/ renewable sources
Objectives and motivation of the action	The aim of this action is dual. On the one hand it focusses on energy saving investments and, on the other, switching to renewable energy.
	Investing in energy-saving systems is possible provided that these lead to an increase in energy efficiency or energy savings of at least 15%. Residual heat recovery systems can additionally facilitate the meaningful utilisation of heat released from other processes. The capacity from these investments must be aligned to the producer organisation's anticipated energy consumption.
	To enable the switch to renewable energy, methods other than fossil fuels are being considered for the generation of energy, such as wind energy, solar energy, bio-methanisation, heat pumps, etc. There are two different systems that make use of solar energy. Solar thermal systems supply hot water and photovoltaic systems provide electricity. Wind turbines convert the kinetic energy from wind into mechanical power. A generator subsequently converts this mechanical power into electricity. Bio-methanisation or anaerobic digestion is actually the degradation - due to lack of oxygen - of various organic substances, which, amongst other things leads to the production of methane (CH ₄), which in turn may be converted into heat and/or electricity by means of cogeneration. A heat pump extracts heat from a heat source, such as soil, water or air, and subsequently delivers this to the heating system at a higher temperature by means of compression. Attention is also being paid to new and improved energy storage techniques, driven by the discontinuous energy supplies from intermittent renewables.
Commitment	The benefits for the environment include the associated savings on fossil fuels and reduced emissions of greenhouse gases (carbon dioxide,) and other air pollutants. These substances negatively influence air quality (risk of ozone, acid rain,), have a negative impact on public health and are the likely cause of global warming. As most producer organisations are major consumers of energy, it is important that they invest in energy-efficient systems and alternative energy sources. Not all renewable energy sources are of continuous production in nature, thus it is important to pay additional attention to energy storage and heat buffer systems.

Expenditure eligible for funding and conditions	Investments in the context of this action are fully eligible for assistance. For these investments - a detailed justification with regard to energy use or energy savings (at least 15%) (see also general terms a
	 conditions)like an energy-audit, feasibility study, must be supplied. A lower percentage is only possible there are multiple environmental benefits, which must be assessed by the competent services in advance; it must be demonstrated that the energy production capacity of the alternative sources (+ potential cogeneration) at the producer organisation (PO) relates exclusively to the producer organisation's own annual energy consumption; thus the energy production may at most cover the producer organisation's annual energy requirement; it must be demonstrated that the finest available technology (which does not incur excessive costs) is applied;
	 Examples of energy savings and renewable sources: Anti-condensation film and façade screening (no fixed energy screening) Relighting Cogeneration at PO level Wind turbines at PO level Photovoltaic systems at PO level Geothermal energy at PO level Energy storage and heat buffer systems at PO level Residual heat recovery systems at PO level
	 Installation of hoods to evaporators/ high-speed-roll-up-doors /flaps at the entrance of the cooling cells Conversion of cooling cells at PO level from chlorofluorocarbons to natural and environmentally friendly refrigerants such as CO₂ or NH₃
Obligations	The competent service requests the following reporting commitments or obligations from the producers and/or producer organisation: List of producers (if applicable) who participate/submit expenditure, together with their agricultural number, invoice number, statement of the cultivated surface area;

 etc. regarding energy use, savings and energy from renewable sources Possession of the detailed invoice (at least quantity and specification) and the registration of the used product/technique used.

	Action 7 – Sustainable water management
Objectives and motivation of the action	Water is indispensable in the agricultural and horticultural sector. Water is not only a natural resource and essential production agent; it is also a scarce good. As responding to all steps in the chain delivers optimal results, this action supports sustainable water management both during the crop growth process and the processes required for the harvested product. Water requires greater consideration in the 21st century. The European and Flemish environmental and agricultural policy therefore demands that additional attention be paid to this raw material. Against this background, water-saving measures are actively being encouraged on the one hand and the reuse of water and water treatment on the other.
	Investing in water-saving systems is possible, provided that these lead to water savings of at least 15%. Investments in drip irrigation or similar systems aimed at reducing water consumption are possible, provided that they lead to water consumption savings of at least 5% compared to consumption prior to investment, and do not result in a net expansion of irrigation acreage, unless the total water consumption for irrigation of the entire farm, including post acreage expansion, does not exceed the average water consumption in the five-year period preceding investment.
Commitment	This action results in a reduced water consumption and protects water, a non-renewable natural resource.
	Sustainable water consumption via improved water consumption and/or management in agriculture is essential for relieving pressure on scarce water reserves and protecting natural water supplies. The agricultural sector is a major water consumer, thus it is important that this natural resource and scarce commodity is protected. Furthermore, water purification leads to a restriction in the discharge of polluted residual water into the environment, and to a reduction in both water pollution and consumption.
Expenditure eligible for funding and conditions	Investments in the context of this action are fully eligible for subsidy. For such investments:

	 A detailed justification for the investment in relation to water savings (of at least 15% or at least 5% in the case water use in drip irrigation or similar systems) by a water audit, feasibility study, (see general terms and conditions) must be supplied; It must be demonstrated that the finest available technology (which does not incur excessive costs) is applied;
	 Examples of sustainable water management: Drip tape (e.g. T-tape) Soil moisture sensors Precision irrigation (e.g. gun corner) Water saving methods for irrigation, such as control systems, radiation sensors Water purification and reuse of water at PO level Sprinkler with reduced water usage for frost prevention
Obligations	 The competent services request the following reporting commitments or obligations from the producers and/or producer organisation: List of producers who participate/submit expenditure, together with their agricultural number, invoice number, statement of the cultivated surface area; The reporting contains the results and the trends, the number of participants, the opportunities still present, etc. regarding water use and savings Possession of the detailed invoice (at least quantity and specification) and the registration of the used product/technique used.

Cluster 3 – Waste and nutrient management

	Action 8 - Sustainable soil management
Objectives and motivation of the action	High quality, fertile agricultural land is an irreplaceable production resource for sustainable and profitable agriculture <mark>. Sustainable soil management is an interplay of different principles e.g. reducing mineral fertilisers (see also action 4 for aids for sustainable fertilisation), adding manure and compost for improving soil organic matter and soil biodiversity, reduction of pesticides (see cluster IPM) and crop rotation.</mark>
	Horticultural practices and techniques that improve soil structure, such as cover crops, erosion prevention measures and cultivation techniques that concentrate organic material in the top layer of the soil <mark>are encouraged</mark> in this action. A good, stable soil structure is achieved thanks to the effect of organic matter in the soil, the activity of soil life and a favourable soil pH. Organic matter acts as both a binding agent for the creation of stable aggregates and food for soil life.
	Thus farmers have a vested interest in applying best practices and cultivation techniques that result in good yields and simultaneously maintain fertile soil. Cover crops are one such best practice. After the main crop is harvested, cover crops are sown on lots that would otherwise remain fallow. Such cultivation improves the soil structure, contributes to fertile soil, reduces the compaction of agricultural land and valorises the harvesting residue from the preceding main crop. Another best practice is crop rotation which is stimulated indirectly by research, advisory services, certificates of environmentally friendly production,
	Non-inversion tillage is another means of contributing to sustainable soil management. only work the subsoil and not the top soil. These "anti-erosion ploughs" contribute to a strong reduction in erosion and, using suitable techniques, can be deployed on erosion-sensitive lots. We additionally focus on measures in the context of soil compaction, such as the mounting of subsoilers onto (existing) ploughs, in order to ensure that hard soil layers under the plough furrow are infiltrated. This improves the infiltration capacity of water and creates an improved root growth. This consequently enables the more efficient absorption of nutrients and results in healthy crops that do not require additional plant protection products. Which in turn ensures an environmentally friendly cultivation.

Commitment	This soil conservation action leads to improved soil quality and ensures the protection of the environment and the landscape. Furthermore, good soil quality contributes to soil biodiversity. It also protects the soil, ensuring that soil quality is maintained. Focussing on sustainable soil management thus has a positive impact on water quality, public health, climate change, nature protection, biodiversity and food safety.
Expenditure eligible for funding and conditions	Additional costs for cover crops and resources in the context of prevention of wind erosion are eligible for subsidy. The competent services supplies a list of crops eligible for cover crops subsidy (please refer to Annex 4 in Part 4 of the national strategy). The full amount of the investment in soil improvement techniques is eligible for subsidy. Investments must demonstrate that the finest available technology (which does not incur excessive costs) has been applied.
	 Examples of sustainable soil management: Cover crops Soil-improvement techniques such as anti-erosion ploughs/subsoilers/other types of deep-working non-inversion soil tillage machines Prevention of drift and wind erosion damage (preventive measures) Soil scans Compost spreader A flail mower (in order to flail organic waste products and in this way, using them as soil improvers)
Obligations (excluding ground cover plants)	 The competent service requests the following reporting commitments or obligations from the producers and/or producer organisation: List of producers who participate/submit expenditure, together with their agricultural number, invoice number, certificate type (a certification of environmentally friendly production or of organic farming on the basis of externally monitored specifications); statement of the cultivated surface area; The reporting contains the results and the trends, the number of participants, the opportunities still present, etc. regarding the utilisation of these measures and techniques; Possession of the detailed invoice (at least quantity and specification) and the registration of the used product/technique used.
Obligations for cover crops	The producer organisation supplies the following information by no later than 1st December of the year in which the sowing of the cover crop takes place: a list of producers (including agricultural numbers) that have submitted the 'sowing of a cover crop' action, including the anticipated area (ha per grower); in the case of parcels outside the

Flemish territory has to be permitted by the ther Member State/region and mutual assistance must be provided by the other Member State in order to be deemed admissible.

If this list is not submitted in good time (by no later than 1st December), the audit by the competent services cannot take place and the action will be cancelled.

The producer organisation must submit the following documents on 15th February of year n (upon submission of the aid application), following the year in which the sowing took place:

- A list of producers who sow a cover crop following a main CMO crop in year n-1, including the sown area per grower:
- A list of producers who sow a cover crop prior to a main CMO crop in year n, including the sown area per grower.

The producers and producer organisation must comply with the following obligations:

- Cover crops must be declared in the collecting application in the year of sowing with the mandatory specification of the sown cover crops next to "successive crop" and the mandatory specification of the "GNT" code next to "BB" (additional land-use).
- The parcels concerned must be registered, including surface area, type of cover crop and main crop at a minimum;
- The producers commit themselves to sow cover crop at the specified parcels at a minimum sowing density (as indicated in the table below), and to process and incorporate them;
- The producers commit themselves to maintain the sown cover crop until 1st February
- The producers commit themselves to retain all sowing certificates and submit these for control;
- The sowing of the cover crop must be completed prior to 31st October using certified sowing seeds as mentioned in the competent service's list of approved cover crops;
- Accumulation with other cover crops subsidies is precluded;
- The measure must be in accordance with the general provisions in the national strategy;
- The producer organisation must make use of the relevant performance indicators in the reporting.

Only the seed cost is eligible for subsidy.

Cover crop ('GNT' cover crop action in the single application) cannot be accumulated with the declaration of cover crop in the context of greening obligation the ecological focus area ('EAG-GB' in the single application).

The Manure Decree contains specific provisions in which the sowing of a catch crop following the main crop is mandatory and in which cover crop is therefore ineligible.

This system shall be evaluated by the competent services on an annual basis and, if necessary, the amount, list of permitted crops and conditions will be amended (please refer to Appendix 4 of Part 4). At least every five years, the additional cost will be calculated

	Action 9 – Sustainable waste management
Objectives and motivation of the action	Increasing consumption is placing greater pressure on available raw materials, making it increasingly important to recover materials and energy from waste and to minimise the amount of waste. This action focuses on limiting the quantities of waste and maximising the reuse of raw materials and products in a variety of ways: - use of biodegradable materials and bioplastics during cultivation - processing of crop residues - valorisation of waste flows - reuse of potting compost
	By reducing the amount of waste and encouraging reuse and recycling, an increasing number of steps can be taken towards a circular economy and, in time, the closing of the cycles.
	Biodegradable materials are an alternative for plastics, which exit exclusively via residual waste. These biodegradable materials (such as biodegradable plastic foil, rope, clips,) are of organic origin and degrade in the soil and/or are processable in a composting process.
	Investments for processing cultivation residue at the producer organisation level are eligible for support because they contribute to a significant waste reduction, a decrease in plant protection product emissions and/or energy savings. The recycling of substrates is also eligible, provided that they are recycled into new substrate products, bricks, soil improvers etc. by specialised processing companies. The processing of crop residue is also eligible, provided it is processed sustainably by specialised processing companies via composting, bio-fermentation and other processes.
	The valorisation and reuse of waste flows is also encouraged. Such as the processing of tomato fibre in the cardboard industry and the various reuse opportunities for potting compost, for example. Since it is of considerable importance to the circular economy, there are an increasing number of possibilities in this context.

Commitment	A circular economy focuses on maximum reusability of products and raw materials and minimum value destruction. Waste is minimised or, where it remains, harnessed as raw material for new products. Thus this action also helps to close the cycle. This action protects natural resources and protects the environment via fossil fuel savings and reduced emissions of greenhouse gases (carbon dioxide,) and other air pollutants.
Expenditure eligible for funding and conditions	The additional cost is eligible for funding. Supplementary costs (additional costs) imply the specific costs that are calculated as the difference between the traditional and actual costs incurred. For the calculation of the additional cost associated with this environmental action, account is taken of the potential cost savings, the potential minus yield and the potential extra costs. At least every five years, the additional cost will be calculated. For investments, the full cost is eligible for subsidy. It must be demonstrated that the finest available technology (which does not incur excessive costs) has been applied where appropriate;
	Costs for processing, recycling or composting are admissible upon the condition that they do not comprise obligatory expenditure and are clearly demonstrable additional efforts.
	 Examples of sustainable waste management Utilisation of biodegradable foil, ropes and clips Biodegradable foil for cultivation (e.g. around substrates) Recycling of horticultural plastic Processing of cultivation residue, substrates and crop residue Reuse and revaluation of potting soil Valorisation of waste flows (e.g. tomato fibre, spent mushroom compost etc.) Investments in the processing of crop residue (OP level), such as composting plants, biofermenters.
Obligations	 The competent services request the following reporting commitments or obligations from the producers and/or producer organisation: List of producers who participate/submit expenditure, together with their agricultural number, invoice number, certificate type (a certification of environmentally friendly production or of organic farming on the basis of externally monitored specifications); statement of the cultivated surface area; The reporting contains the results and the trends (per crop), the number of participants, the opportunities still present, etc. regarding the action;;

- Processor/collector certificate (approved by the Public Waste Agency of Flanders) for waste processing where applicable;
- Waste processing recycling proof where applicable;
- Registration of the means/technique utilised.
- Possession of the detailed invoice (at least quantity and specification, in the case of waste processing, the
 acreage, quantities, type of processing and crop must all be clearly specified) and the registration of the used
 technique used.

Cluster 4 - Clustering of companies

Action 10 – Collec	tive investments pertaining to environmentally friendly actions in the context of company clustering
Objectives and motivation of the action	Whilst this action does not introduce new actions in itself, it is a different action because it allows collective investments at the production holding clustering level via CMO subsidisation. Clustering means the pooling of production holdings within each other's immediate environment, with the intention of collaborating. Such a cluster, presents an opportunity for cooperation with respect to water, energy and waste.
	Such cluster structures make expensive yet environmentally friendly investments more feasible. Investments in solar energy (solar thermal or photovoltaic systems), wind energy (wind turbines), cogeneration, waste stream valorisation projects, waste management, water purification etc. are eligible for CMO subsidisation in this context.
Commitment	Environmental benefits include savings on fossil fuels and reduced emissions of greenhouse gases (carbon dioxide,) and other air pollutants. These substances negatively influence air quality (risk of ozone, acid rain,), have a negative impact on public health and are the likely cause of global warming.
Expenditure eligible for funding and conditions	The full cost of the investment is eligible for subsidy. For these investments

– a detailed justification for the investment with regard to energy consumption or energy savings (of at least 15%):
energy audit, feasibility study, etc. must be supplied (where applicable);
- it must be demonstrated that the energy production capacity relates exclusively to the cluster's energy consumption (where applicable);
- it must be demonstrated that sustainable water management and water quality management relate exclusively to the cluster's water management and water quality (where applicable);;
 it must be demonstrated that the waste valorisation projects relate exclusively to the cluster's waste management (where applicable);;
- it must be demonstrated that that the finest available technology (which does not incur excessive costs) has been applied;
For investments pertaining to water, energy or waste, the commitments or obligations listed under actions 4, 6, 7 and/or 9 must be complied with;
Examples:
- Cogeneration
- Wind turbines
- Photovoltaic systems
- Geothermics
 Energy storage and heat buffer systems
- Residual heat recovery systems
- Waste flow valorisation projects
- Waste management

Obligations	 The competent services request the following commitments or obligations from the producers and/or producer organisation: For investments pertaining to water, energy or waste, the commitments or obligations listed under actions 4, 6, 7 and/or 9 must be complied with; List of parties who participate/submit expenditure, together with their agricultural number, invoice number, statement of cultivated area; The reporting contains the results and the trends, the number of participants, the opportunities still present, etc. regarding the environmentally friendly clustering of holdings; Possession of the detailed invoice with detailed description and the registration of the used product/technique used.

APPRICES

Part 4 of the national strategy :

Appendix 1 - List of actions at producer level

Appendix 2 – List of environmentally friendly and organic products and techniques to prevent and control diseases and pests

Appendix 3 - Standard flat rates regarding the additonal costs of resistant seeds, coated seeds, grafted plants and related

Appendix 4 - List of crops eligible for cover crops