National Framework for environmental actions - ANNEX of the 2017-2020 National Strategy of The Netherlands for sustainable operational programmes in the fruit and vegetables sector -

Horticulture and the environment

As indicated in paragraph 4.2 of the National Strategy (in particular the SWOT analysis) the Dutch fruit and vegetables sector has achieved a great deal in the field of sustainability. Thanks to the programme *Kas als energiebron* (Greenhouse as a Source of Energy')¹, for example, major steps have been taken in terms of reducing the consumption of fossil energy sources and improving energy efficiency. Furthermore, the environmental impact of nutrients and plant protection products leaching into groundwater and surface water has been reduced considerably. Nonetheless, further efforts in respect of sustainability are required. Consumers, retail industry and civil society organisations in the Netherlands and abroad are making increasingly higher demands on products. International environmental and climate objectives also call for more extensive efforts.

Therefore, cultivation under glass continues to require significant investments to further reduce the use of fossil energy sources and to replace them with alternative energy sources. Open field cultivation needs to continue its focus on reducing the emission of minerals and chemical plant protection agents in addition to developing closed water cycles that do no emit nutrients and crop production agents into the environment. An increase in organic fruit and vegetables production will also contribute to enhance the sustainability of horticulture. The challenge for the fruit and vegetables sector is to get its efforts to improve sustainability rewarded by presenting these as an extra quality feature in distinctive market segments.

Facing these challenges producer organisations in the fruit and vegetables sector have an important role to play. With this environmental framework the Netherlands intend to stimulate producer organisations to make further efforts towards increasing sustainability.

Further sustainability

To achieve further sustainability, the following four clusters of activities are identified, with each cluster being further elaborated in a list of activities (enclosed in the Appendix):

- *Energy*: the transition to considerably more extensive energy savings and more use of renewable energy sources is essential in maintaining the competitiveness of the Dutch horticultural sector. This transition requires more radical system changes with the final objective to develop and utilise an entirely renewable energy supply by 2050.
- *Integrated pest management*: another environmental challenge is to further reduce the use of pesticides and to reduce their emissions into groundwater and surface water.
- *Nutrients and waste*: reducing the emissions of nutrients into groundwater and surface water is a major challenge for the cultivation of field crops in particular. A more efficient use of nutrients and the development of alternative cultivation methods involving fewer

¹ More information about this program can be found on <u>https://www.kasalsenergiebron.nl/en/</u>

emissions are ways to reduce the current emissions levels. Waste reduction, saving of resources and the use of renewable raw materials are other key challenges for the sector in achieving a more sustainable horticulture. In addition, more efforts should be made to contribute to the transition to circular agriculture.

• Organic production: increasing organic fruit and vegetables production will also contribute to reduce the sector's use of pesticides and help to further limit horticultural production's environmental burden.

Goals

For the clusters energy, integrated pest management and organic production national goals with measurable targets for the horticultural sector as a whole have been set. These national goals provide guidance for producer organisations to set their own specific objectives.

Energy: The greenhouse horticultural sector aims to achieve a fully sustainable and economically viable energy supply by 2050, as indicated in *the Meerjarenafspraak energie transitie glastuinbouw* (multi-annual agreement on energy transition in the greenhouse horticultural sector 2014-2020)². The ambitions for 2020 are twofold:

- production in *new* greenhouses will be climate-neutral, in other words net production without the use of fossil energy;
- for *existing* greenhouses cultivation concepts and techniques are developed which allow for production with half of the fossil fuel as compared to 2011.

The goals for 2020 include an emission limit of 6.2 megatons of CO_2 , including CO_2 emissions from electricity, and energy savings of 11 petajoules, as set out in the *Energie akkoord* (Agreement on Energy for Sustainable Growth)³. These goals aim for a CO_2 reduction of over 15% in 2020 as compared to 2014 (2.5% per year from 2014). This can be achieved by:

- Increasing the share of renewable energy in greenhouses to 7% in 2020. The share of renewable energy in greenhouses was 3% in 2013. The development and acceleration of the use of geothermal energy as a renewable energy source in greenhouses is a priority.
- Reduction of the total consumption of fossil energy sources in greenhouses by 15% in 2020 as compared to 2011.
 Energy efficiency, energy consumption per unit of product between 1990 and 2013 has improved by 50%, but the total energy consumption has barely fallen. Increase of the share of renewable energy sources and new cultivation techniques with even higher energy efficiency can contribute to a significant reduction in the consumption of fossil energy sources in greenhouses.

Collaboration between horticultural holdings in the fruit and vegetables sector can facilitate the use of sustainable energy sources and energy savings, and is in line with the CMO objectives.

² More information on this agreement can be found on <u>https://zoek.officielebekendmakingen.nl/stcrt-2014-</u> <u>19352.html?zoekcriteria=%3fzkt%3dUitgebreid%26pst%3dStaatscourant%26dpr%3dAlle%26spd%3d20170928%26epd%3d20170928%26jgp%3d2014%26nrp%</u> <u>3d19352%26sdt%3dDatumPublicatie%26planId%3d%26pnr%3d1%26rpp%3d10&resultIndex=0&sorttype=1&sortorder=4</u>

³ More information on this agreement can be found on http://www.energieakkoordser.nl/doen/engels.aspx.

Regional cooperation among non-horticultural enterprises and producer organisations and their members can also lead to energy savings and the use of renewable energy sources. Where eligible actions are carried out by producer organisations in cooperation with other entities, the Dutch authorities will only fund such actions if it is ensured that EU funding only benefits producer organisations and their members in the fruit and vegetable sector.

Integrated pestmanagement: Promotion of Integrated Pest Management (IPM) is an obligation for all EU Member States, as laid down in Directive 2009/128/EC on the sustainable use of pesticides (SUD). Since 1 January 2014 all professional users of plant protection products are obliged to implement the IPM general principles in Annex-II of that Directive. This obligation has been implemented by the Netherlands in due time. In the Dutch National Action Plan⁴ on the sustainable use of pesticides and the broader policy note on sustainable plant protection *Gezonde Groei, Duurzame Oogst* ('Healthy Growth, Sustainable Harvest)⁵ actions and measures are taken up to achieve sustainable plant protection in the period between 2013-2023. Both include specific actions and measures to improve IPM implementation. In this area, the Netherlands prefers a positive approach wherein professional users are being challenged, rather than punished, to step up their efforts to implement IPM. This approach includes, for example:

- Development of new integrated approaches;
- Training of farmers on alternative plant protection methods and measures;
- Further encouraging of IPM implementation with help of financial and fiscal incentives and (private) certification. Our ambition is to have all fruit and vegetable production covered by private certification schemes by 2023.
- Obligating professional users to keep record of chemical and non-chemical Integrated Pest Management (IPM) measures as well as the outcome of the measures taken, in the so-called "plant protection monitors". This instrument was introduced in national legislation in 2015 (the Plants Protection Products and Biocides Decree) to implementation the IPM provisions under Article 14 of the Directive. Its purpose is to stimulate professional users to reflect retrospectively on the effectiveness of their IPM strategy and to create a learning effect for the following growing season.

⁴ This action plan can be found on <u>https://zoek.officielebekendmakingen.nl/kst-27858-</u>

^{2013%26}dosnr%3d27858%26nro%3d119%26kmr%3dEersteKamerderStatenGeneraal%257cTweedeKamerderStatenGeneraal%257cVerenigdeVergaderingderS tatenGeneraal%26sdt%3dKenmerkendeDatum%26par%3dAgenda%257cHandeling%257cKamerstuk%257cAanhangsel%2bvan%2bde%2bHandelingen%257cKa mervragen%2bzonder%2bantwoord%257cNiet-

dossierstuk%257cBijlage%26dst%3dOnopgemaakt%257cOpgemaakt%257cOpgemaakt%2bna%2bonopgemaakt%26isp%3dtrue%26pnr%3d1%26rpp%3d10&re sultIndex=7&sorttype=1&sortorder=4

⁵ More information about this memorandum can be found on <u>https://www.rijksoverheid.nl/documenten/rapporten/2013/05/14/gezonde-groei-duurzame-gewasbescherming</u>

Both the NAP and the policy note GGDO will be carefully evaluated in 2018 by an independent contractor, the Netherlands Environmental Assessment Agency. Following this evaluation, the Netherlands might appoint additional actions and measures to achieve the national targets, quantitative and qualitative objectives by 2023.

Linked to SUD and the implementation of the Water Framework Directive, 2000/60/EC is the objective to reduce emissions of plant protection products to surface and ground water. Water quality must be improved by 2023, including surface and ground water for drinking water production. The goal is a reduction by 2023 of emissions of plant protection products to surface water with at least 95% as compared to 2013. All individual greenhouses are required to install water purification systems that meet the 95%-requirement as of 1 January 2018.⁶ However, in duly justified cases, in order to take specific needs into account, the competent authorities (CA) may allow for a derogation of the obligation. The CA may in particular allow local cooperations of growers more time to adapt to the 95%-requirement until 2021. Where such derogations are provided, the aim of the CA is to stimulate transition as soon as possible.

Organic fruit and vegetable production: The goal is to achieve an annual growth of 5% in sales of organic certified fruit and vegetables. There are clear market opportunities for Dutch organic production as demand for organic fruit and vegetables is still considerably increasing both within the Netherlands and abroad. The growth in sales can be achieved by creating added-value to existing organic produce and by further extending the area under organic cultivation.

For nutrients used for field crops standards are established to fulfill the obligations required by the Nitrates Directive (1991) which is now integrated in the Framework Directive on Water (2000/60/EC). Therefore, in this environmental framework no additional national goals have been set. It is up to the producer organisations to set their own additional goals.

In September 2018 the Minister for Agriculture in the Netherlands unfolded her vision for a circular agriculture in the policy note *Landbouw*, *natuur en voedsel: waardevol en verbonden - Nederland als koploper in kringlooplandbouw* ("Agriculture, nature and food: valuable and connected. The Netherlands as a leader in circular agriculture")⁷. Although the vision does not set national goals with measurable targets for the horticultural sector as a whole, as a first step, innovative initiatives to re-use waste material originating from the cultivation of fruit and vegetables are to be stimulated in all production systems (organic, integrated and conventional). This approach is also in line with the EU Action Plan for the Circular Economy and the central role accorded in this action plan to waste management and recycling of waste materials.⁸

⁶ See for the amendments to the Activiteitenbesluit milieubeheer <u>https://zoek.officielebekendmakingen.nl/stb-2017-305.html</u>

⁷ See for the Policy note <u>https://www.government.nl/ministries/ministry-of-agriculture-nature-and-food-quality/documents/policy-notes/2018/11/19/vision-ministry-of-agriculture-nature-and-food-quality---english</u>

⁸ See for the Communication form the Commission on the actionplan https://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC_1&format=PDF

Operational programmes and conditions

To stimulate further sustainable development in the areas described above, producer organisations will be required to include the strategic goal sustainability (paragraph 5.1.3. of the Dutch National Strategy) in their operational programmes, with preferably a focus on the broadest possible application of new techniques at the level of the producer organisation itself and on the level of individual holdings of its members. In the operational programme, the producer organisations will have to formulate measurable and auditable objectives, and list activities that can make a verifiable contribution to these objectives. The activities that a producer organisation may include in the environmental part of the operational programme are listed in the list in the appendix to this framework. This list is, in accordance with Article 3(1) of Implementing Regulation (EU) 892/2017, a non-exhaustive list. However, for practical implementation purposes the list is set up as an exhaustive list for a given year. New activities may be included in the list at any time, after consulting relevant parties (e.g. the producer organisations), but they will only be applicable for the years following their adoption in the list.

Conditions

In accordance with Article 3(1) of Implementing Regulation (EU) 892/2017 and Article 36(1) of Regulation (EU) No 1308/2013, the requirements for environmental actions selected under an operational programme are listed below. These requirements consist of:

- a) the requirements laid down in Article 28, paragraph 3 and Article 29, paragraphs 2 and 3, of Regulation (EU) No. 1305/2013 (in accordance with Article 33(5) of Regulation (EU) No. 1308/2013)
- b) the requirements of Article 3 of Regulation (EU) No. 1305/2013 (in accordance with to Article 36(1) of Regulation (EU) No. 1308/2013)
- c) other requirements.

A. Requirements laid down in Articles 28 and 29 of Regulation (EU) No. 1305/2013

If applicable, environmental actions included in this environmental framework and in the operational programmes of producer organisations shall:

- Cover only those commitments going beyond the relevant mandatory standards established pursuant to Chapter I of Title VI of Regulation (EU) No 1306/2013.
- Cover only the relevant criteria and minimum activities as established pursuant to points (c)(ii) and (c)(iii) of Article 4(1) of Regulation (EU) No 1307/2013.
- Cover only the relevant minimum requirements for fertiliser and plant protection products use as well as other relevant mandatory requirements established by national law. Ensure that persons undertaking to carry out environmental actions are provided with the knowledge and information required to implement such operations.
- Ensure that support shall be limited to the maximum amounts laid down in Annex II of Regulation (EU) No 1305/2013. See also the requirement of Article 31(4) Regulation (EU) 2017/891 further on.

B. Requirements laid down in Article 3 of Regulation (EU) No. 1305/2013

The environmental actions included in this environmental framework and in the operational programmes of the producer organisations shall:

- Contribute to the Europe 2020 Strategy by promoting sustainable rural development in a manner that complements to the other instruments of the CAP and the cohesion policy.
- Contribute to the development of a Union agricultural sector that is more territorially and environmentally balanced, climate-friendly and resilient and competitive and innovative.
- Contribute to the development of rural territories.

C. Other requirements

- Environmental actions must respect the general requirements set out in Regulations (EU) 1308/2013, 2017/891, 2017/892, the Dutch national strategy and the national regulation for the implementation of the CMO Fruit and Vegetables.
- Environmental actions must comply with this national framework for environmental actions.
- In accordance with Article 3(7)(a) of Regulation (EU) 2017/892 various environmental actions may be combined provided that they are complementary and compatible. Where environmental actions other than investments in physical assets are combined, the level of support shall take account of the specific income foregone and additional costs resulting from the combination.
- In accordance with Article 3(7)b of Regulation 2017/892 commitments to limit the use of fertilisers, plant protection products or other inputs shall be accepted only if such limitation can be assessed in a way that provides assurance about compliance with those commitments.
- In accordance with Article 3(7)(c) of Regulation (EU) 2017/892 investments beneficial for the environment referred to in paragraph 3 are fully eligible for support.
- In accordance with Article 33(5) of Regulation (EU) 1308/2013 the operational programmes must either include two or more environmental actions, *or* at least 10% of the expenditure in the framework of an operational programme must relate to environmental actions.
- In accordance with Article 3(4) Regulation (EU) 2017/892 investments included in the operational programme which allow for a reduction in the current use of production inputs, emission of pollutants or waste from the production process shall allow for reduction of at least 15% over the fiscal depreciation period of the investment compared to the pre-existing situation of:
 - 1. The use of production inputs that are non-renewable natural resources, such as water or fossil fuel, of possible sources of environmental pollution, such as fertilisers, plant protection products or certain types of energy sources;
 - 2. The emission of air, soil or water pollutants from the production process; or
 - 3. The production of waste, including waste-water, from the production process.

A lower threshold (but not lower than 7%) applies for actions that, in addition to water saving, energy saving or reduction in emission of pollutants, also contribute to other environmental benefits. The competent authority will judge this on a case by case basis. The expected reduction and, where applicable, the expected additional environmental benefit, shall be demonstrated ex-ante through project specifications or other technical documents to be presented by the producer organisation or association of producer organisations at the moment of the submission of the proposed operational programme or of the amendment of such a programme for approval, showing the results that could be obtained through the implementation of the investment, as attested by the technical documents or by

an independent qualified body or expert agreed by the Dutch authorities. For first time investments in the fruit and vegetables sector the Dutch authorities will require an assessment of the expected reduction or additional benefit by an independent external expert (engineer), for follow up investments written documentation provided by the supplier may suffice.

- Investments which may allow for a reduction in the use of production inputs or emission of pollutants are, when applied in the framework of organic production, considered as investments that lead to improvement of the environment as referred to in Article 3(3)(d) of Regulation (EU) 2017/892. Organic production by its very nature contributes to the reduction in the use of production inputs and emission of pollutants. Investments supporting organic production in that objective are therefore eligible for support in accordance with Article 3(3)(d) of Regulation (EU) 2017/892 (i.e. the requirement that the investment provides for a reduction of at least 15% (7%) does not apply).
- In accordance with Article 3(5) of Regulation (EU) 2017/892 to be eligible for support, investments which allow for replacing the use of fossil energy sources with renewable energy sources consisting in systems which generate energy shall not exceed the amount that can be used ex-ante on a yearly basis for the actions related to fruit and vegetables by the producer organisation, association, subsidiary or the producer organisation's members that benefit from the investment. However, an incidental over capacity can be delivered to third parties if the revenues are deducted from the eligible investment. Therefore these investments should be financed through the operational fund in identical instalments for at least five years and the yearly revenues have to deducted from those instalments.
- In accordance with Article 3(6) of Regulation (EU) 2017/891 investments which allow for reducing the environmental risks linked to the use of certain production inputs, including plant protection products or fertilisers or investments which lead to an indirect improvement for the environment shall only be eligible for support where they contribute to soil protection, water or energy saving, improvement of maintenance of water quality, habitats or biodiversity protection, climate change mitigation, and reduction or improved management of waste, although their contribution is not quantifiable. The producer organisation or their associations shall provide evidence of the expected positive contribution to one or more environmental objectives at the moment of the submission for approval of the proposed operational programme or amendment of such a programme. In the case of first time investments in the fruit and vegetable sector the Dutch authorities require that evidence be provided in the form of project specifications attested by an external engineer; for follow up investments written documentation of the supplier may suffice.
- Only activities that go beyond the statutory minimum requirements can be included in operational programmes.
- Activities in the framework of the operational programmes may not be pooled with other requests for support. Actions contained in the
 operational programme of a producer organisation may not be included either by the producer organisation or by its member(s) in any
 other request for support, irrespective of whether this support is provided by a national or EU source (see also paragraph 6.5. of the
 Dutch National Strategy).
- Environmental actions included in the operational programme must be in accordance with the national regulations in which the following Directives are implemented:
 - a) the Bird Directive (74/409/EC)
 - b) the Habitat Directive (72/43/EC)
 - c) the Framework Directive on Water (2000/60/EC)

d) the Directive establishing a framework for Community action to achieve the sustainable use of pesticides (2009/128/EC)

- Article 30(4) of Regulation (EU) 2017/891 provides that support for environmental actions that are identical to agri-environment-climate or organic farming commitments as referred to respectively in Articles 28 and 29 of Regulation (EU) No 1305/2013 shall be limited to the maximum amounts laid down in the Annex II to that Regulation for agri-environment-climate payments or for organic farming payments. Those amounts may be increased in duly substantiated cases taking account of specific circumstances to be justified in the national strategy and in the operational programmes of the producer organisations. Since in the Dutch Rural Development Programme 2017 2020 only the management of waders, the management of field fauna, botanical management and the management of landscapes are designated as agri-environment-climate commitments and these actions are not included in the list of activities in the annex to this framework, the maximum amounts of Annex II of Regulation 1308/2013 are not applicable. Therefore there is no need to derogate from these amounts in the annex of this framework.
- For the actions 'organic production', 'integrated production' and 'actions to conserve the soil' producer organisations are obligated to maintain the action in the operational programme for the entire running time of that programme and they shall continue that action in a subsequent operational programme if this is necessary for attaining the duration applicable to organic production under the Rural Development programme, 6 years, except for duly justified reasons, and in particular based on the results of the evaluation of the operational program provided for in Article 57 van Delegated Regulation (EU) 2017/891.

Communication

The national policy in The Netherlands is determined and communicated to producer organisations by means of a regulation of the Ministry of Agriculture, Nature and Food Quality: Regeling uitvoering GMO groenten en fruit 2018.

APPENDIX to The Netherlands National Framework for environmental actions

	I.ENERGY								
Specific objectives	Type of action	Activities	Motivation	Conditions & obligations		Indicators			
1. Use of sustainable energy	Purchase of fixed assets (and other forms of fixed asset acquisition, such as renting and leasing)	Investments in renewable energy, such as solar panels, solar collectors, windmills, geothermal energy.	This contributes to the self- generation of energy from sustainable and renewable energy sources and leads to direct savings in fossil fuels and a reduction of CO ₂ emissions and other greenhouse gases, with the goal of finding a solution to climate change problems.	 1.Substantiation of submission: Ex ante assessment of the investments based on: project plan, budget and proposals technical specification describing fossil fuel savings, or energy purchase on the market, of at least 15% based on the product features and an energy balance sheet drafted by an expert, including a calculation of the expected energy flows and savings in exceptional cases, when the activity also secures other environmental benefits, technical specification describing fossil fuel savings, or energy purchase on the market, of at least 7% based on the product features and an energy balance sheet drafted by an expert, including a calculation of the expected energy balance sheet drafted by an expert, including a calculation of the expected energy flows and savings technical specification of the energy production capacity of at most the own maximum annual energy needs Proposal submission that includes a ministerial application form and an energy balance sheet 	1. 2. 3. 4. 5.	Baseline measurement by the PO of the initial situation associated with the selected actions Number of companies participating in the actions Total investment value Total acreage covered by the actions Estimated change in total annual energy consumption and fossil/non foscil			
				 list of participating members detailed invoice substantiation of additional returns substantiation and report to supplement the 	6.	breakdown Estimated change in the total annual			

	application	CO ₂ emissions
		(derived)
	3. Support is available for:	
	installations for selected activities using renewable	
	energy, such as:	
	 solar panels 	
	 solar collectors 	
	o windmills	
	 geothermal energy 	
	consultancy fees and preliminary research if	
	included in the detailed invoice (this is not a	
	research measure or training measure which are	
	part of measures 4 and 5)	
	expenses for installing and assembling sustainable	
	means of production and the associated installation	
	and assembly costs, which are generally activated	
	for fiscal and economics purposes ¹ , as part of the	
	sustainable means of production	
	Particulars:	
	- The costs associated with connecting the producer	
	to a geothermal source are eligible for support.	
	- In the case of solar energy, the costs associated	
	with modifying the building of the producer	
	organisation, the producer or a subsidiary and the	
	support material are eligible for support.	
	- The costs associated with the grower's	
	transformer station, with connecting to an	
	external transformer station of the energy	
	suppliers and with reinforcing the connection for	
	renewable energy are also eligible for support.	
	- If the total amount of energy delivered to third	
	parties exceeds the amount of energy which is	
	used by the grower or the producer organisation,	
	the earnings have to be deducted from the	
	financial aid.	

¹ In accordance with general accepted accounting principles, the expenses related to an investment are activated together with the expenses of the investment. E.g. the expenses for the architect in case of an new building or the expenses for installing a sunscreen on the roof.

				 4. The following are not eligible for support: heat and power plants on-site biofuel burners 		
				 5. Evaluation of operational programme: annual submission of energy balance sheets and acreage of participating members submission of indicators, including energy consumption and acreage, of all members (PO level) 		
				 6. General terms and conditions: The general terms and conditions for the expenditure on sustainable means of production apply. The investment must meet the CMO objectives. 		
2. Reusing energy and CO ₂ from third-party residual flows	Purchase of fixed assets (and other forms of fixed asset acquisition, such as renting and leasing)	Purchase of equipment for the connection to residual waste flow networks, such as residual heat, CO ₂ and biogas	This action contributes to the reuse of waste materials and leads to direct savings in fossil fuels and a reduction of CO ₂ emissions and other greenhouse gases, with the goal of finding a solution to climate change problems.	 Substantiation of submission: Ex ante assessment of the investments based on: 	1. 2. 3. 4. 5.	Baseline measurement by the PO of the initial situation associated with the selected actions Number of companies participating in the actions Total investment value Total acreage covered by the actions Estimated change in total

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	 3. Support is available for: installations (i.e. the physical connection via interconnectors and transport pipelines to the supplier's source), for selected activities that use energy and CO₂ from third-party residual flows consultancy fees and preliminary research if included in the detailed invoice (this is not a research measure or training measure which are part of measures 4 and 5). expenses for installing and assembling sustainable means of production and the associated installation and assembly costs, which are generally activated for fiscal and economics purposes, as part of the sustainable means of production Particulars: The action involves using third-party residual flows as opposed to the internal production of energy from third-party residual flows. Costs associated with connecting the grower to the suppliers source are eligible for support. In the case of a CO₂ network, the costs associated with facilities for the storage of CO₂ are also eligible for support. 4. The following costs are not eligible for support: expenses incurred by the producers' organisation for facilities for the distribution and regulation of heat and CO₂ in the greenhouse expenses associated with on-site biofermenters and biofuel burners for the production of neat and CO₂ in the greenhouse 	annual energy consumption and grey/green ² breakdown 6. Estimated change in the total annual CO ₂ emissions
	 are also eligible for support. 4. The following costs are not eligible for support: expenses incurred by the producers' organisation for facilities for the distribution and regulation of heat and CO₂ in the greenhouse expenses associated with on-site biofermenters and biofuel burners for the production of residual heat and biofuels 	
	 5. Evaluation of operational programme: annual submission of energy balance sheets and acreage of participating member submission of indicators, including energy 	

 $^{\rm 2}$ The terms grey energy and green energy are explained in the Glossary to this list of activities .

				 consumption and acreage, of all members (PO level) 6. General terms and conditions: The general terms and conditions for the expenditure on sustainable means of production apply. The investment must meet the CMO objectives. 		
3. Increasing energy efficiency through the application of energy- saving techniques	Purchase of fixed assets (and other forms of fixed asset acquisition, such as renting and leasing)	Purchase of equipment for energy storage and exchange systems, such as energy- saving heat pumps, heat exchangers and aquifers for heat and cold buffering Purchase of equipment for closed and semi-closed greenhouse systems, such as energy- saving ventilation, air conditioning and high- pressure atomisation systems, energy-saving	This action contributes to direct savings in fossil fuels and a reduction of CO ₂ emissions and other greenhouse gases, with the goal of finding a solution to climate change problems.	 Substantiation of submission: Ex ante assessment of the investments based on: 	 1. 2. 3. 4. 5. 6. 	Baseline measurement by the PO of the initial situation associated with the selected actions Number of companies participating in the actions Total investment value Total acreage covered by the actions Estimated change in total annual energy consumption and grey/green breakdown Estimated change in the total annual CO ₂ emissions
		second screens		equipment for energy storage and exchange		

and innovative	systems, such as energy-saving heat pumps, heat
energy-saving	exchangers and aquifers for heat and cold
and insulating	buffering.
roof and façade	 equipment for closed and semi-closed greenhouse
systems	systems, such as energy-saving ventilation, air
	conditioning and high-pressure atomisation
Purchase of	systems, energy saving second screens and
equipment for	innovative energy-saving and insulating roof and
the energy-	façade systems.
efficient drying	 equipment for the energy-efficient drying and
and storage of	storage of products such as CO2 propane cooling.
products, such	 other energy-efficient equipment, such as energy-
as CO ₂	saving engines.
propane ³	consultancy fees and preliminary research if
cooling	included in the detailed invoice (this is not a
	research measure or training measure which are
Purchase of	part of measures 4 and 5).
other energy-	expenses for installing and assembling sustainable
efficient	means of production and the associated installation
equipment,	and assembly costs, which are generally activated
such as energy-	for fiscal and economics purposes, as part of the
saving engines	sustainable means of production
	Particulars:
	 In the case of closed and semi-closed
	greenhouse systems, the following
	combinations apply in the context of a
	total concept:
	 fresh air intake combined with a
	second movable energy screen
	 energy-saving ventilation system
	with heat recovery or preheating
	capabilities
	 air treatment systems for
	dehumidification
	 high-pressure atomisation
	systems with adiabatic cooling

³ Propane cooling is explained in the Glossary to this list of activities.

	with a droplet size of 5 to 15
	microns
	 façade screen that generates
	energy savings of at least 40%
	when the screen is closed
	 heat exchange systems
	 heat pump
	 aquifers for heat and cold
	buffering
	 second energy screen that
	generates energy savings of at
	least 45% when the screen is
	closed
	 The following conditions apply to energy-
	saving and insulating roof and façade
	systems for new greenhouses:
	 the material is double-glazed and
	translucent (diffuse, coated)
	 the material is double-layered
	with a combination of glass and
	high-quality film and translucent
	(diffuse, coated)
	 as an exception on the basic rule
	that environmental investments
	are fully eligible, in the case of
	double glazing, only the additional
	expenditure associated with
	double glazing versus single
	alazing is eligible for subsidy
	• In order to avoid funding normal
	(conventional) practice, the following
	conditions apply to energy-saving and
	insulating roof and facade systems for
	existing greenhouses:
	the material has better insulating
	nroperties than single glazing
	and is translucent
	and is translutent
	Consists of plastic pariets, double-

	glazed panels, or double	
	fluoropolymer (ETFE) film, with	
	an optional overpressure	
	ventilation fan to separate the	
	foils and improve insulation	
	 consists of insulation material 	
	whereby the sum of the layers'	
	heat resistance (R = Σ (Rm) =	
	$\Sigma(d/\lambda)$ increases by at least 1.50	
	m2K/W compared to the old	
	situation	
	 in derogation of Article 3(7)(c) of 	
	Regulation 2017/892 only the	
	additional expenditure for the	
	insulated surface is eligible for	
	subsidy	
	• In the case of energy-efficient drying and	
	storage methods:	
	 the equipment is intended for the 	
	short and long-term storage of	
	products	
	 the costs for the initial acquisition 	
	of measurement and control	
	equipment are also eligible for	
	subsidy	
	4. The following are not eligible for support: ⁴	
	heat buffer boiler tank (WOK)	
	heat buffer tank	
	first energy screens	
	darkening screens	
	sun protection material	
	flue gas scrubbers and associated measurement	
	equipment	
	 load-bearing structure for roof and facade systems 	
	for assembly purposes	

⁴ The investments listed here are considered as common practice in The Netherlands and therefore are not eligible for support.

	 expenses for installing and assembling roof and facade systems and the associated installation and assembly costs, which are generally activated for fiscal and economics purposes, as part of the sustainable means of production the replacement of a second screen
	 5. Evaluation of operational programme: annual submission of energy balance sheets and acreage of participating members submission of indicators, including energy consumption and acreage, of all members (PO level)
	 6. General terms and conditions: The general terms and conditions for the expenditure on sustainable means of production apply. The investment must meet the CMO objectives.

II Integrated pest management								
Specific objectives	Type of action	Activities	Motivation	Conditions & obligations		Indicators (starting situation)		
1. Application of non- chemical methods	Purchase of fixed assets (and other forms of acquisition, such as renting and leasing) Personal cost Other actions	The acquisition of innovative equipment based on non- chemical methods of plant protection, such as UV light as a form of mold prevention (light trucks) ⁵ , precision mechanical weed control (finger and torsion weeders) and associated control systems (mechanical, driver pattern recognition, GPS), organic weed control covering materials (foil),	This action contributes directly to a reduction in the use of chemical plant protection products, with the aim of safeguarding the quality of the water, the soil and the landscape and maintaining or improving biodiversity.	 Substantiation of submission: Ex ante assessment of the investments based on: 	1. 2. 3. 4. 5.	Baseline measurement by the PO of the initial situation associated with the selected actions Number of companies participating in the actions Total investment value Total acreage under IPM and organic production Estimated change in total annual consumption of active substances in kg/ha		

 $^{\rm 5}$ UV light as a form of mold prevention is explained in the Glossary to the list of activities.

electrochemical	research measure or training measure which are	
disinfection	 expenses for installing and assembling sustainable 	
anainst	means of production and the associated installation	
microorganisms	and assembly costs, which are generally activated	
(aquanox)	for fiscal and economics nurnoses as part of the	
insect petting	sustainable means of production	
insect ficturing	Particulars:	
	 In the case of organic foil for use as weed 	
	control, specific costs for biodegradable	
	plastic foil as compared to conventional	
	plastic foil are eligible for support.	
	 In the case of precision mechanical weed 	
	control, only the weed system (extra	
	function) of self-driving agricultural	
	machinery is eligible for support.	
	 In the case of electrochemical water 	
	protection, the associated sprayer is also	
	eligible for support.	
	4. The following are not eligible for support:	
	spraying pipes	
	 transport systems for moving UV light trucks to the 	
	next row or department	
	 parts of agricultural machinery, such as tractor, 	
	tool carrier, engine and cabin including all	
	accessories (only additional functions are eligible	
	for subsidy)	
	thermal equipment (burners) due to high energy	
	consumption and negative environmental effects	
	boiling water techniques (e.g. for disinfecting	
	foliage removal fabrics, materials and greenhouses)	
	due to high energy consumption and negative	
	environmental effects	
	 soil and material sterilisation in the greenhouse due to high operate consumption and positive 	
	environmental effects	
	environmental effects	
	Inemprane cover	

						
				standard drain water purification (UV		
				sterilisation/neating etc.) for recirculating water in		
				the pre-harvest phase		
				nygiene locks and nygiene stations, as well as		
				automatic soap/disinfectant units with integrated		
				turnstile to prevent the introduction of diseases in		
				the greenhouse by employees and visitors		
				 5. Evaluation of operational programme: annual submission of the total consumption of active substances in kg/hectare broken down by (groups of) crops (plus a multi-year spraying registration if necessary), including the starting situation (this is the average use of active substances in the preceding three years) (this requirement does not apply in case of organic production) annual submission of integrated pest management acreage broken down by crop for each participating member submission of indicators, including substance consumption and acreage, of all members (PO level) 		
				6 General terms and conditions:		
				The general terms and conditions for the		
				expenditure on sustainable means of production		
				apply.		
				• The investment must meet the CMO objectives.		
2. Application	Other actions:	Purchase of	This action	1. Substantiation of submission:	1.	Baseline
of non-	Integrated Pest	biological plant	contributes	 Ex ante assessment of the expenses based on: 		measurement
chemical	Management	protection	directly to a	$_{\circ}$ project plan, budget and proposals		by the PO of
methods	production	products, plant	reduction in the	$_{\circ}$ cost specification for new activities (new plant		the initial
and		protection	use of chemical	protection materials) based on written		situation
approved		products	plant protection	documentation or additional documents at the		associated with
low-risk		containing low-	products, with	request of the Minister		the selected
substances		risk active	the aim of	 Proposal submission that includes a ministerial 		actions

and basic	substances,	safeguarding	application form	2.	Number of
substances	basic	the quality of			companies
	substances and	the water, the	2. Requirements of application for aid:		participating in
	associated	soil and the	list of participating members		the actions
	equipment	landscape and	detailed invoice.	3.	Total cost
		maintaining or	 substantiation of specific costs for biological plant 		value
	Purchase of	improving	protection products, plant protection products	4.	Total acreage
	other	biodiversity.	containing low-risk active substances or basic		under IPM and
	equipment		substances via a ministerial declaration form and		organic
	associated with		written documentation (if no fixed standard flat		production
	the application		rates). A comparison will be made between the	5.	Estimated
	of non-chemical		costs of biological products or low-risk products and		change in total
	methods		comparable conventional products.		annual
			 substantiation and report to supplement the 		consumption of
			application		active
					substances in
			3. Support is available for:		kg/ha
			The costs of activities associated with the		
			application of non-chemical methods.		
			Particulars:		
			 The following costs are eligible for support in 		
			the case of biological products or other		
			integrated pest management products and		
			associated equipment:		
			a) macrobiological beneficials (natural		
			predators) and nematodes in accordance		
			with Dutch law		
			b) microbiological beneficials (molds, bacteria		
			and viruses) in accordance with Dutch law		
			c) biological control agents in accordance with		
			Dutch law		
			d) pheromone disruption techniques in		
			accordance with Dutch law		
			e) pheromones as a form of bait in traps		
			T) Time water in truit farming		
			g) organisms, food and products for dosing		
			purposes to support biological control agents		
			n) natural enemies (insects and mites) subject		

to a dispensation from the Minister
i) natural enemies (moulds, bacteria and
viruses) for which the Dutch Board for the
Authorisation of Plant Protection Products
and Biocides has issued an 'urgently
required' authorisation
j) plant protection products containing low-risk
active substances or basic substances that
have been approved by the European
Commission in accordance with Regulation
(EC) No 1107/2009
- The following costs are eligible for support in
the case of organic plant protection products:
a) dispersal equipment for effectively dosing
natural enemies
b) scoutbox for the automatic detection and
diagnosis of pests
c) the scoutbox software licence is only once
eligible for subsidy.
d) fly lamps and mould filters for mushroom
farming
e) sticky traps and roller traps
4. The following are not eligible for support:
 plant protection products of conventional origin
 surcharge for (tray) treatment costs (especially
labour) incurred by suppliers and/or plant growers
 supporting materials like sealants for sealing
mushroom cells
5. Evaluation of operational programme:
annual submission of the total consumption of
active substances in kg/hectare broken down by
(groups of) crops (plus a multi-year spraying
registration if necessary), including the starting
situation (this is the average use of active
substances in the preceding three years) (this
requirement does not apply in case of organic

				nue du etien)	1	
				 production) annual submission of integrated pest management acreage broken down by crop for each participating member submission of indicators, including substance consumption and acreage, of all members (PO level) 6. General terms and conditions: The general terms and conditions for expenditure for miscellaneous costs apply. The expenditure must meet the CMO objectives. 		
2. Doduction in	Durchass of	Durchage of	This patient	1. Substantiation of submission:	1	Pagaling
3. Reduction in	Furchase or	Purchase of		1. Substantiation of submission:	1.	Baseline
che use of	fixed assets	iow-emission	directly to a	Ex drite assessment of the investments based on: project plan, budget and procession		heasurement
chemical	(and other forme	equipment,	directly to a	 project plan, budget and proposals technical specification describing chemical 		by the PO of
plant	(and other forms	such as low-	reduction in the	 technical specification describing chemical activities of at least 15% based on the 		
protection	or acquisition,	emission	use or chemical	savings of at least 15% based on the		situation
products	such as renting	spraying	plant protection	product features and/or a research report		associated with
through the	and leasing)	systems (low-	products, with	drafted by an expert		the selected
application of		drift nozzies)	the aim of	(where the fixed asset is used in the	2	actions
precision		and associated	sareguarding	tramework of organic production this	2.	Number of
administratio		GPS systems	the quality of	requirement does not apply)		companies
n tecnniques			the water, the	Proposal submission that includes a ministerial		participating in
(efficiency)			soil and the	application form	2	the actions
			landscape and		3.	
			maintaining or	2. Requirements of application for aid:		investment
			improving	Ist of participating members		value
			biodiversity.	detailed invoice	4.	Total acreage
				substantiation and report to supplement the		under IPM and
				application		organic
					_	production
				3. Support is available for:	5.	Estimated
				 equipment and associated control systems for 		change in total
				selected activities through the application of		annual
				precision application techniques		consumption of
				consultancy fees and preliminary research if		active
				included in the detailed invoice (this is not a		substances in

· · · · ·	
 research measure or training measure which are part of measures 4 and 5). expenses for installing and assembling sustainable means of production and the associated installation and assembly costs, which are generally activated for fiscal and economics purposes, as part of the sustainable means of production Particulars: In the case of low-emission spraying equipment, only the spraying system (extra function) of self-driving agricultural machinery is eligible for support. In the case of GPS systems used for precision agricultural techniques, the following combinations are eligible for support: precision sowing or planting precision administration of fertilisers and plant protection products precision mechanical weed control 	kg/ha
 4. The following are not eligible for support: transport systems for moving spraying robots to the next row or department investments in spraying pipes parts of agricultural machinery, such as tractor, tool carrier, engine and cabin including all accessories (only additional functions are eligible for subsidy) 	
 5. Evaluation of operational programme: annual submission of the total consumption of active substances in kg/hectare broken down by (groups of) crops (plus a multi-year spraying registration if necessary), including the starting situation (this is the average use of active substances in the preceding three years) 	

				 annual submission of integrated pest management acreage broken down by crop for each participating member submission of indicators, including substance consumption and acreage, of all members (PO level) General terms and conditions: The general terms and conditions for the expenditure on sustainable means of production apply. The expenditure must meet the CMO objectives. 		
4. Reduction in the use of chemical plant protection products through the application of precision administratio n techniques (efficiency)	Other actions: integrated pest management production	Expenditure related to outsourcing and personal cost of detection and diagnostic services, such as monitoring and warning systems; crop, water and soil analyses; and decision support systems (DSS) ⁶	This action contributes directly to a reduction in the use of chemical plant protection products, with the aim of safeguarding the quality of the water, the soil and the landscape and maintaining or improving biodiversity.	 Substantiation of submission: Ex ante assessment of the expenses based on: project plan, budget and proposals cost specification for new activities (new diagnosis or DSS) based on written documentation or additional documents at the request of the Minister Proposal submission that includes a ministerial application form Requirements of application for aid: list of participating members detailed invoice substantiation and report to supplement the application Support is available for: the costs of activities associated with the application of precision administration methods The following are not eligible for support: costs of crop, water and soil analyses to determine the application of put tripates (NL D) 	 1. 2. 3. 4. 5. 	Baseline measurement by the PO of the initial situation associated with the selected actions Number of companies participating in the actions Total cost value Total acreage under IPM and organic production Estimated change in total annual consumption of partice

⁶ Decision support systems are explained in the Glossary to this list of activities.

						substances in
				 5. Evaluation of operational programme: annual submission of the total consumption of active substances in kg/hectare broken down by (groups of) crops (plus a multi-year spraying registration if necessary), including the starting situation (this is the average use of active substances in the preceding three years) annual submission of integrated pest management acreage broken down by crop for each participating member submission of indicators, including substance consumption and acreage, of all members (PO level) 6. General terms and conditions: The general terms and conditions for the expenditure for miscellaneous costs apply. The expenditure must meet the CMO objectives. 		kg/ha
5. Ensuring	Purchase of	Purchase of	This action	1. Substantiation of submission:	1.	Baseline
sufficient	fixed assets	equipment with	contributes	Ex ante assessment of the expenses based on:		measurement
supply and		innovative	directly to	 project plan, budget and proposals 		by the PO of
quality of	(and other forms	technologies	reducing	 technical specification describing emission 		, the initial
water	of acquisition,	and systems for	emissions from	reductions of at least 15% on		situation
through	such as renting	reducing the	contaminants	contaminants, based on the product		associated with
application	and leasing)	flow of plant	into the water,	features and/or a research report drafted		the selected
of water		protection	with the aim of	by an expert		actions
purifi-		products and	retaining	Proposal submission that includes a ministerial	2.	Number of
cation		nutrients to the	sufficient high-	application form		companies
techniques		soil and surface	quality and			participating in
		water, such as	useable water.	2. Requirements of application for aid:		the actions
		water		list of participating members	3.	Total
		purification		detailed invoice		investment
		equipment,		substantiation and report to supplement the		value
		helophyte		application	4.	Total acreage
		filters, biofilters				under IPM and
		and measures		4. Support is available for:		organic

to prevent farm emissions (point loading)	 equipment and associated control systems for selected activities through the application of water purification techniques consultancy fees and preliminary research if included in the detailed invoice (this is not a research measure or training measure which are part of measures 4 and 5). expenses for installing and assembling sustainable means of production and the associated installation and assembly costs, which are generally activated for fiscal and economics purposes, as part of the sustainable means of production Particulars: In principle all greenhouses are required to install water purification systems that meet the 95%-requirement as of 1 January 2018. However, in duly justified cases, in order to take specific needs into account, the authorities may allow for a derogation of the obligation. The authorities may in particular allow collective water purification systems time to adapt to the 95%-requirement until 2021 with a view to the need to reduce purification costs for greenhouses. Where such derogations are provided, the investment is eligible. The following are not eligible for support: investments in standard water purification (as these are required by law) Evaluation of operational programme: annual submission of integrated pest management acreage broken down by crop for each participating member submission of indicators, including substance 	5. Estimated change in total annual consumption of active substances in kg/ha
	consumption and acreage, of all members (PO	

				level)		
				 6. General terms and conditions: The general terms and conditions for the expenditure on sustainable means of production apply. The expenditure must meet the CMO objectives. 		
6. Participa-	Other actions	Participation in	This action	1. Substantiation of submission:	1.	Baseline
tion in		certification	contributes	 Ex ante assessment of the expenses based on: 		measurement
certification	Personal costs	systems.	directly to a	 project plan, budget and proposals 		by the PO of
systems			reduction in the	 Proposal submission that includes a ministerial 		the initial
			use of chemical	application form		situation
			plant protection			associated with
			products, with	2. Requirements of application for aid:		the selected
			the aim of	 list of participating members 		actions
			safeguarding	detailed invoice	2.	Number of
			the quality of	 substantiation and report to supplement the 		companies
			the water, the	application		participating in
			soil and the			the actions
			landscape and	3. Support is available for:	3.	Total cost
			maintaining or	 certification systems which issue binding conditions 		value
			improving	concerning the production methods which are	4.	Total acreage
			biodiversity.	subject to independent controls by qualified		under IPM and
				agencies or persons; it concerns expenditure		organic
				related to:		production
				 a) advise, audit, certification, and membership fees 		
				b) personal cost related to the certification		
				systems		
				c) the development of materials for the		
				certification systems		
				d) the initial cost of development and		
				improvement of ICT systems and		
				registration modules related to the		
				certification systems.		
				Particulars:		
				 certification systems such as (On the way to) 		

		 Planet Proof, ISO 14001 Milieu, MPS Fruit and Vegetables, Duurzame Glastuinbouw Producten, CO2 Footprint are eligible for support. certifications systems from retail companies such as Albert Heijn Protocol, Field to Fork, LEAF and SEDEX are eligible for support. 	
		 4. The following are not eligible for support: Expenditure for the certification of groenlabelkassen⁷ The purchase of materials 	
		5. Evaluation of operational programme:Submission of all participating members.	
		6. General terms and conditions:The expenditure must meet the CMO objectives.	

⁷ Groenlabelkassen is explained in the Glossary to this list of activities.

			III. O	rganic production		
Specific objectives	Type of action	Activities	Motivation	Conditions & obligations	In sit	dicators (starting uation)
1. Organic production	Other actions: organic production	Purchase of organic propagating material for horticultural crops in the National Annex of Naktuinbouw ⁸ Purchase of Skal ⁹ membership for affiliation and certification	This action contributes directly to reducing the use of chemical plant protection products, with the aim of safeguarding the quality of the water, the soil and the landscape and maintaining or improving biodiversity.	 Substantiation of submission: Ex ante assessment of the expenses based on: 	1. 2. 3. 4. 5.	Baseline measurement by the PO of the initial situation associated with the selected actions Number of companies participating in the actions Total cost value Total acreage under IPM and organic production Estimated change in total annual consumption of active substances in kg/ha

 ⁸ Naktuinbouw is explained in the Glossary to the list of activities.
 ⁹ Skal is explained in the Glossary to this list of activities.

				 Horticulture (Naktuinbouw) b) the Dutch variety list from the Board for Plant Varieties (NRR)¹⁰, or c) registered with an inspection body in another EU member state The varieties are Skal-certified, as evidenced at the request of the Minister through: a) an invoice and delivery receipt or a plant passport stating the Skal number and EKO or BIO quality marks, or b) the supplier's Skal certificate or a list of Skal-certified suppliers and Skal numbers. 4. The following are not eligible for support: non-organic propagating material, including any and all exemptions provided and approved by Skal for common propagating material in the National Anney 		
				 National Annex 5. Evaluation of operational programme: annual submission of organic acreage broken down by crop for each participating member submission of indicators, including acreage, of all members (PO level) 		
				 6. General terms and conditions: The general terms and conditions for the expenditure for miscellaneous costs apply. The expenditures must meet the CMO objectives. 		
2. Organic	Other actions:	Purchase of	This action	1. Substantiation of submission:	1.	Baseline
production	production	compost from	directly to	 project plan, budget and proposals 		the PO of the initial

¹⁰ Board for Plant Varieties is explained in the Glossary of this list of activities.

rganic	reducing the	 Proposal submission that includes a ministerial 		situation associated
roduction	use of fertilizers	application form		with the selected
loudetion	and non-			actions
	renewahle	2 Requirements of application for aid	2	Number of
	resources with	list of participating members	2.	companies
	the aim of	detailed invoice		participating in the
	safequarding	 substantiation of the additional costs 		actions
	the quality of	 substantiation of the additional costs substantiation and report to supplement the 	З	
	the water the	application	J.	
	soil and the	application	т.	organic production
	landscape and	3 Support is available for:	5	Estimated change
	maintaining or	• expenditure (additional costs) for the purchase	5.	in total annual
	improving	of manure and compost from organic farms		consumption of
	hiodiversity	certified by the Skal Foundation		active substances
	bloarrenbicy	Particulars:		in ka/ha
		- The producer organization shall demonstrate		
		the organic origin of manure and compost		
		when submitting the aid application by		
		means of:		
		a) an invoice and a delivery note stating		
		Skal number and 'eko' or 'bio';		
		b) the Skal certificate from the supplier or a		
		list of Skal-certified suppliers and Skal		
		numbers,		
		c) and a report per participating producer		
		of:		
		1. The area of CMO worthy crops;		
		2. the quantity and the type of manure		
		or compost;		
		3. The stated costs.		
		4. The following is not eligible for support:		
		• Expenditures for concentrated (trade) fertilizers		
		5. Evaluation of operational programme:		
		 annual submission of organic acreage broken 		
		down by crop for each participating member		
		 submission of indicators, including acreage, of 		

	6. 0	 all members (PO level) General terms and conditions: The general terms and conditions for the expenditure for miscellaneous costs apply. The expenditures must meet the CMO ship there. 	
		objectives.	

	IV NUTRIENTS & WASTE						
Specific objectives	Type of action	Activities	Motivation	Conditions & obligations	Indicators (starting situation)		
1. Precision fertilisation (precision techniques)	Purchase of fixed assets (and other forms of acquisition, such as renting and leasing)	Purchasing low-emission equipment for precision fertilisation (GPS, NIRS ¹¹ , row fertilisation, drip system fertilisation, a GPS fertiliser system for liquid fertilisers and accompanying control systems, such as management system Meteo and groundwater fertilisation.	This action contributes directly to reducing the use of fertilizers and non- renewable resources, with the aim of safeguarding the quality of the water, the soil, and the landscape and maintaining or improving biodiversity.	 Substantiation of submission: Ex ante assessment of the investments based on: project plan, budget and proposals technical specification describing chemical savings of at least 15% based on the product features and/or a research report drafted by an expert (where the fixed asset is used in the framework of organic production for the application and reduction of the use of natural fertilizers this requirement does not apply) Proposal submission that includes a ministerial application form Requirements of application for aid:	 Baseline measurement by the PO of the initial situation associated with the selected actions Number of companies participating in the actions Total investment value Total acreage covered by the actions Estimated change in total annual consumption of mineral fertilisers and breakdown in N and P₂O₃ 		

¹¹ NRIS is explained in the Glossary of this list of activities.

	sustainable means of production and the
	associated installation and assembly costs,
	which are generally activated for fiscal and
	economics purposes, as part of the sustainable
	means of production
	Particulars:
	 In the case of precision fertilisation
	techniques (fertigation), the following
	conditions apply:
	a water delivery system on the
	land including a water pump
	manifolds and drip systems
	that are not exclusively used
	for water a control unit
	moisture measuring
	aquipment aquipment for
	determining mineral content
	and pH, or facilities for dosing
	and mixing fertilisers
	 the investment cannot lead to
	an increase in water
	consumption
	 drip systems as intended
	under point (a) above are only
	eligible for subsidy with initial
	investments
	 In the case of precision mechanical
	fertilisation, only the fertilisation
	system (extra function) of self-driving
	agricultural machinery is eligible for
	support.
	 GPS costs for mapping different forms
	of arable land, soil analyses and
	fertilization plan.
	4. The following are not eligible for support:
	Investments in a soliless water delivery system (fortigation), the construction of a water delivery system
	(fertigation), the construction of a water source,

				and pipes to the fertigated land		
				 parts of agricultural machinery, such as tractor. 	ĺ	
				tool carrier, engine and cabin including all	ĺ	
				accessories (only additional functions are	ĺ	
				eligible for support	ĺ	
					1	
				 5. Evaluation of operational programme: annual submission of the usage of agents, water and acreage broken down by crop for each participating member submission of indicators, including acreage, of all members (PO level) 6. General terms and conditions: The general terms and conditions for the expenditure on sustainable means of production 		
				apply.	ĺ	
				• The expenditure must meet the CMO objectives.		
					<u> </u>	D
2. Soil-less	Purchase of	Purchasing	This action	1. Substantiation of submission:	1.	Baseline
cultivation of	fixed assets	equipment	contributes	• Ex ante assessment of the investments based	ĺ	measurement by the
fruit &		based on	directly to	on:	ĺ	PO of the initial
vegetables ¹²	(and other	cultivation	reducing the	 project plan, budget and proposals 	ĺ	situation associated
	forms of	techniques in	use of	 technical specification describing 		with the selected
	acquisition,	which no	chemicals and	chemical savings of at least 15% based	ĺ	actions
	such as renting	contact is	non-	on the product features and/or a	2.	Number of
	and leasing)	made between	renewable	research report drafted by an expert	ĺ	companies
		the water and	resources,	 Proposal submission that includes a ministerial 		participating in the
		nutrients used	with the aim	application form	ĺ	actions
		by the crop	of		3.	Total investment
		and the soil,	safeguarding	2. Requirements of application for aid:		value
		such as a	the quality of	 list of participating members 	4.	Total acreage
		leak-proof	the water,	detailed invoice	ĺ	covered by the
		bottom plate	the soil, and	 substantiation and report to supplement the 	ĺ	actions
		and bins,	the landscape	application	5.	Estimated change in
		basins,	and			total annual

¹² 'Soil-less cultivation' is explained in the Glossary of this list of activities.

		filtering and nutrient recycling	maintaining or improving biodiversity.	 Support is available for: the costs of activities associated with the soilless cultivation of fruit and vegetables consultancy fees and preliminary research if included in the detailed invoice (this is not a research measure or training measure which are part of measures 4 and 5). investments for installing and assembling sustainable means of production and the associated installation and assembly costs. Particulars: The investment cannot lead to an increase in water consumption The following are not eligible for support: investments in a soilless water delivery system (fertigation), the construction of a water source, and pipes to the fertigated land Evaluation of operational programme: annual submission of the usage of agents, water and acreage broken down by crop for each participating member submission of indicators, including acreage, of all members (PO level) General terms and conditions: The general terms and conditions for the expenditure on sustainable means of production apply. The expenditure must meet the CMO objectives. 	consumption of mineral fertilisers and breakdown in N and P ₂ O ₃
3. Increasing share of	Other actions: actions to	Purchasing and	This action	 Substantiation of submission: Ex ante assessment of the expenses based on: 	1. Baseline measurement by the
sustainable	reduce waste	developina	directly to	 project plan, budget and proposals 	PO of the initial
and organic	and improve	bio-based	reducing the	 Proposal submission that includes a ministerial 	situation associated
and organic	and improve	Dio-Dased	reducing the	 Proposal submission that includes a ministerial 	situation associated

applications	waste	biodegradable	use of	application form		with the selected
approactions	management	nlastics ¹³	chemicals and			actions
	management	nurchasing	non-	2 Requirements of application for aid:	2	Number of
		hiodegradable	renewable	list of participating members	2.	companies
		clins and plant	resources	detailed invoice		narticinating in the
			with the aim	 substantiation of additional costs for 		actions
		support topes	of	 Substantiation of additional costs for hiodogradable plastics, clips and repositional 	3	Total cost value
			cafoguarding	ministerial declaration form and written	J. ⊿	Total acroado
			the quality of	documentation (if no fixed standard flat rates)	4.	rotar acreage
			the quality of	A comparison will be made between the costs of		actions
			the soil and	hiedegradable plastics and similar plastics of a	F	Estimated change in
			the landscape	conventional origin, between biodegradable clips	5.	the total appual
			and	and repose and cline and repose of a conventional		
			maintaining	and topes and clips and topes of a conventional		produced
			or improving	origin.	6	Estimated change in
			biodiversity	substantiation and report to supplement the application	0.	the total appual use
			biourversity.	application		of packaging
				2. Current is available for		or packaging
				5. Support is available for:		materials
				additional expenses for purchasing		
				biologi duable plastics for use as packaging		
				support ropes		
				expenses for the development of new		
				biologiauable plastics for use as packaging		
				material		
				4 The following are not clicible for supports		
				expenses for tasks associated with packing and		
				marketing products		
				 reusable barrels and conventional packaging 		
				materials for packing and marketing products		
				5. Evaluation of operational programme:		
				 annual submission of the amount of packaging 		
				material used and waste volume produced, and		
				acreage broken by crop for each participating		

¹³ More information about the use bioplastics can be found in the Glossary to this list of activities.

				member		
				 submission of indicators including acreage of 		
				• Submission of maleators, melduling acleage, of		
				all members (PO level)		
				6 Conoral torms and conditions:		
				The general terms and conditions for the		
				The general terms and conditions for the		
				expenditure for miscellaneous costs apply.		
				The expenditure must meet the CMO objectives.		
4. Recycling	Purchase of	Purchasing	This action	1. Substantiation of submission:	1.	Baseline
waste	fixed asset	equipment to	contributes	Ex ante assessment of the		measurement by the
material		transform	directly to	investments/expenses based on:		PO of the initial
(circular	(and other	waste material	reducina	 project plan budget and proposals 		situation associated
concultur	(and other	from fruit %	wasto with	 Project plan, budget and proposals Proposal submission that includes a ministorial 		with the selected
agricultur			the size of	Froposal submission that includes a ministerial		with the selected
	acquisition,	vegetables	the aim or	application form	-	actions
	such as renting	cultivation into	safeguarding		2.	Number of
	and leasing)	raw materials,	the quality of	2. Requirements of application for aid:		companies
		equipment to	the water,	 list of participating members 		participating in the
	Other actions:	produce (from	the soil, and	detailed invoice		actions
	actions to	the raw	the landscape	 substantiation and report to supplement the 	3.	Total
	reduce waste	materials)	and	application		investment/cost
	and improve	cultivation	maintaining			value
	waste	aide such as	or improving	3. Support is available for:	1	
	management	alas such as	biodivorsity	the costs of activities associated with	ч.	covered by the
	management		biouiversity.	the costs of activities associated with		covered by the
		ropes,		transforming waste material from fruit &	-	actions
		packaging or		vegetables cultivation into raw materials for the	5.	Estimated change in
		products for		production of, and the costs of activities		the total annual
		human or		associated with the actual production of		volume of waste
		animal		 cultivation aids (e.g. plant support 		produced
		consumption		rope),		
				 packaging or 		
				 products for human or animal 		
				consumption		
				 consultancy fees and preliminary research if 		
				included in the detailed invoice (this is not a		
				research measure or training measure which are		
				part of measures 4 and 5).		
				 investments for installing and assembling 		

				sustainable means of production and the	
				associated installation and assembly costs.	
				4. The following are not eligible for support:	
				the costs of activities associated with the direct	
				and simple re-use of waste e.g. as fodder for	
				livestock, compost or as cover.	
				5. Evaluation of operational programme:	
				 annual submission of the amount of packaging 	
				material used and waste volume produced, and	
				acreage broken by crop for each participating	
				member	
				submission of indicators, including acreage, of	
				all members (PO level)	
				C. Consultance and an difference	
				6. General terms and conditions:	
				Ine general terms and conditions for the	
				expenditure on sustainable means of production	
				apply.	
5 Watersavings	Purchaso of	Purchaso of	This action	The expenditure must meet the CMO objectives.	Bacolino
5. Water Savings	fixed assets	innovative	results	Ex ante accessment of the investments based on:	Dasellile
	likeu assets	investments	directly in an	• Ex drice assessment of the investments based on.	PO of the initial
	(and other	aiming the	decrease of	 technical specification describing the 	situation associated
	forms of	reduce of use	the use of	reduction of the use of water of at least	with the selected
	acquisition.	of water	water.	15% based on the product features and an	actions
	such as renting			analyses drafted by an expert, including a 2.	Number of
	and leasing)			calculation of the expected water savings	companies
				 in exceptional cases, when the activity also 	participating in the
				secures other environmental benefits,	actions
				technical specification describing water 3.	Total investment
				savings of at least 7% based on the product	value
				features and an analyses by an expert, 4.	Total acreage
				including a calculation of the expected	covered by the
				water savings	actions
				• Proposal submission that includes a ministerial 5.	Estimated change in
				application form and an water balance sheet	annual water

			uso/boctaro (m3/ba)
		2 Requirements of application for aid:	
		list of participating members	Area with water-saving
		detailed invoice	measures
		cubstantiation of additional returns	measures
		substantiation of additional returns	
		• Substantiation and report to supplement the	
		application	
		3 Support is available for:	
		• investments aiming at replacing or modernising	
		evisting systems resulting in the reduction in the use	
		of water and	
		which are investments concerning:	
		 soil moisture sensors for open air crops 	
		 installations reusing rinse water at the 	
		stage of sorting and packing the products	
		stage of sorting and packing the products.	
		4 The following are not eligible for support:	
		 New investments 	
		5. Evaluation of the operational program:	
		A comparison has to be made between the	
		consumption of water over a period of 12 months	
		before and a period of 12 months after the	
		investment has been put into use.	
		6. General terms and conditions:	
		 The general terms and conditions for the 	
		expenditure on sustainable means of production	
		apply.	
		 The expenditure must meet the CMO objectives. 	

Glossary to the list of activities:

Explanation of terms and names of organisations mentioned in the National Environmental Framework

(The terms and names are listed according to the footnotes)

2. Grey energy vs. green energy

Grey energy is energy generated by the use of fosil fuels and nuclear installations which cause harmful greenhouse gases damaging the environment. Green energy is energy generated by the use of sustainable energy sources like solar, wind, water and geothermal energy and o by the re-use of residues and waste (e.g. CO2, biomass).

3. Propane cooling

Propane refrigeration is a type of a compression refrigerator which uses combustion of propane to directly control the compressor, in contrast to conventional electric refrigerators which use an electrical compressor.

5. Using UV lights as a form of mold prevention

Artificial Ultraviolet C (UV-C) lamps have been shown to be very effective in laboratories for destroying bacteria, molds, viruses and some plant pests (e.g. spider mites) as well as other biological contaminants in air, liquids or on solid surfaces.. UV-C rays are able to penetrate the outer membrane of microbes and damage their DNA, essentially killing them. The same appears to be true for plant pests and their eggs (the smaller the pest the more susceptible they appear to be to UV-C). The specific wavelength of 253.7 nm has been demonstrated to denature the DNA of pathogens so they can no longer reproduce.

6. Decision support systems (DSS)

DDS indicates that by spraying at the optimum time the spraying is more effective and can often achieve the same result with fewer agents. There are many different factors which determine the optimum injection time, i.e. the point at which the agent works most effectively. One factor is the weather. Therefore, there are decision support systems (DSS), which help to make a good estimate of the optimum injection time. Use of these systems often brings benefits to the environment, better protected crop with less growth inhibition and reduced emissions to the environment. (For example, when the number of reports of a certain fungus from a specific area of Netherlands gets a reasonable size, goes for that area an alert to the growers to check their parcel on these fungi and fight.)

7. Groenlabelkassen

A "Green Label Greenhouse" (Groene label kas) is a certification scheme for sustainable greenhouses. Participation in this scheme is supported with specific national funding and therefore not eligible for support under the CMO. See for more information:

http://www.groenlabelkas.nl/29/home.html.

8. Naktuinbouw

Naktuinbouw is an independent agency carrying out official inspection and certification tasks in horticultural seeds and plants under accreditation and responsibility of the Dutch government. Naktuinbouw is an Autonomous Public Authority (APA) regulated by the Ministry of Economic Affairs. In the obligatory inspection system, Naktuinbouw applies the prescribed European directives and legislation for propagating material for floricultural, arboricultural and vegetable crops. These directives are anchored in Dutch legislation in the form of the Netherlands Seeds and Planting Materials Act. Naktuinbouw is an independent and unbiased party. Public duties relating to basic inspections that are the responsibility of other quality and/or inspection services (national and international) are not performed or only performed on a cooperative basis. Naktuinbouw is the organisation in the Netherlands authorised to assess varieties of agricultural, floricultural, arboricultural and vegetable crops for distinctness, uniformity and stability (DUS testing) for registration purposes and/or granting Plant Breeders' Rights, both on Dutch an EU level.

More information (in English) can be found on the following link: <u>http://www.naktuinbouw.nl/en</u>. The list referred to in the Annex can be found on <u>www.biodatabase.nl/annex</u>)

9. Skal

Skal is the control authority for organic production in the Netherlands, assigned by the Ministry of Economic Affairs. Skal is the designated Control Authority responsible for the inspection and certification of organic companies in the Netherlands, within the context of Regulations: (EC) Nr. 834/2007, (EC) Nr. 889/2008 and (EC) Nr. 1235/2008. As a Control Authority Skal is responsible for the implementation and administration of the European organic rules in the primary sector, as well as for the organic controls on processed food producers, importers and trading companies. Skal inspects and awards organic certification to farms and businesses that meet the organic standards. The object of Skal is to offer consumers certainty that a product with an organic label/logo really was produced organically. Skal inspects each of the certified farms and businesses at least once a year. Skal also carries out random spot inspections, which can be unannounced. More information (in English) can be found on the following link: http://www.skal.nl/home-en-gb/about-skal/

10. Raad voor de plantenrassen (Board for Plant Varieties)

Raad voor de plantenrassen is the authority in the Netherlands responsible for Plant Breeders' Rights and registration of plant varieties and forest stands in the National Plant Variety Register. The board is an Autonomous Public Authority (APA) and is supported by the Plant Variety Office, which is part of Naktuinbouw.

More information (in English) can be found on the following link: <u>https://www.raadvoorplantenrassen.nl/en/about-the-board</u>

11. NIRS

NIRS is the abbreviation of Near Infrared Spectrography sensor.

12. Soil-less cultivation

Since 2009 in the Netherlands efforts are being made by researchers, producers and other participants from the horticultural sector to

develop closed cultivation systems for open field horticulture that meet the EU standards for water quality. These efforts are part of the programme "Teelt de grond uit" which literally translates as "cultivation out of the soil". These efforts have been instrumental in developing new cultivation techniques such as floating cultivation systems: in large outdoor cultivation basins open-field crops such as lettuce float in the water in trays with their roots exposed to the water from which they absorb nutrients. The plants are thus not in contact with the soil. More information and illustrations can be found on the following link: https://www.teeltdegronduit.nl/nl/teeltdegronduit.htm Similar soil-less cultivation techniques may also be applied to indoor horticulture.

13. Bio-based biodegradable plastics

Bio-based plastics (or bioplastics) differ from conventional plastics because the raw materials have a bio-based origin. Bioplastics are either compostable or not-compostable. Bioplastics are made of renewable raw materials, such as starch, glucose, cellulose, lactic acid, proteins of through microorganism. These raw materials are extracted from corn, beet, sugar cane, wood, potato, tapioca root or nuts. In the future also residual materials and waste could be used as raw material for bioplastics.

In recent years the characteristics of bioplastics are significantly improved allowing bioplastics to be competitive with conventional plastics in the fields of flexibility, printability, transparency, heat resistance and gloss. The benefits of the use of bioplastics are:

- the production of the materials is not or less harmful to the environment,
- better breathability thereby improving the shelf life of products
- as they are often biodegradable, they can be treated as green waste.

Support will be given only to biodegradable plastics. The specific cost will be calculated as the additional cost in relation to conventional plastics or packaging materials. Because the retailers and the consumers are not willing to pay an extra price for biodegradable plastics, there is no additional income to be deducted from the specific cost. More information can be found on the following websites: https://www.kidv.nl/kennis/253/instrumenten-en-factsheets.html/

https://www.wageningenur.nl/nl/nieuws/Wageningen-UR-presenteert-Catalogus-Biobased-Verpakkingen.html/

http://www.biobasedpackaging.nl/materialen