

# House of Representatives of the States General

2016–2017 session

kst-33576-114

ISSN 0921-7371 The Hague 2017

**33 576**

## **Nature Policy**

**No. 114**

### **LETTER FROM THE MINISTER FOR AGRICULTURE**

To the President of the House of Representatives of the States General

The Hague, 10 July 2017

During the debate on the budget for 2017 (Proceedings II 2016/17, No. 25, item 22 and Proceedings II 2016/17, No. 27, item 9) I gave your House an assurance that an overall picture would be produced of the development of nature-based agriculture in the Netherlands. I am putting that assurance into effect with this letter. I shall start by setting out my interpretation of the term 'nature-based agriculture' and then outline the levels of ambition to which the central government can aspire and what they mean for the role and commitment of the government.

I would like to stress that I am not settling for a particular level of ambition in this letter. It is the next government, not this outgoing one, which should formulate the specific ambitions and the role and commitment of the central government. In the letter on the progress in nature policy to your House of 21 November 2016 (Parliamentary Paper 33 576, No. 93) I indicated the present central government's contribution to accelerating the development of nature-based agriculture.

#### **Nature-based agriculture**

Nature-based agriculture is an ecologically sustainable type of food production. It fully utilises what nature has to offer on, around and beneath the farm (the 'natural capital'), strengthens biodiversity on and around farmland and ensures that the minimum possible burden is placed on nature. The challenge is to integrate nature and biodiversity into farming practice in a profitable manner and to identify and utilise the interaction between ecological and economic preconditions for nature-based agriculture.

Nature-based agriculture can be embedded in farming practice in a variety of ways depending on the type of farm, the characteristics of the farm's location, the soil, the surrounding landscape and the areas on which the farmer wishes to focus. This makes it impossible to provide a blueprint for 'the nature-based farm'. Every farmer will include nature on the farm in his or her own way because the structure on which it is based - the natural system - is unique for each location.

The starting point for greater inclusion of nature's interests and contributions in relation to farming practice is a commitment to avoiding damage to the natural environment on, around and beneath the farm. The broad government policy and legislation pertaining to making the agricultural sector sustainable, such as the policy on ammonia, particulate matter, nitrates, plant protection and the use of veterinary medicinal products and manures, as well as fertilisers, form the basis for this. Innovative developments such as high-precision agriculture and the use of technologies such as

GPS, drones and light equipment also contribute to a reduction of pressure on the environment and help to minimise damage to the natural environment.

Nature-based farming is shaped through measures with which farmers utilise the qualities of nature on, around and beneath farms, measures which are aimed at specific species, and measures which strengthen the natural system. I asked Wageningen University and Research Centre (WUR) and the Louis Bolk Institute to identify the qualitative effects of a number of such measures on, among other things, soil quality, pest control, pollination, climate effects, emissions, landscape structures and biodiversity. I also requested WUR and the Louis Bolk Institute to estimate the effects as regards business economics aspects in the short and long term. The report resulting from the study is appended as an annex to this letter<sup>1</sup>.

WUR and the Louis Bolk Institute differentiate between three related dimensions of nature-based agriculture:

1. A nature-based system is based on biodiversity, which makes essential contributions to farming practice, including natural prevention of diseases and pests, pollination, the supply and treatment of water, natural soil fertility and a good soil structure. This is known as functional agro-biodiversity. Nature-based agriculture starts with the maintenance, improvement and utilisation of biodiversity and the services it offers the farm.
2. By closing nutrient cycles based on those services provided by nature, more efficient use can be made of natural resources and the negative impact of farming practices on the natural environment - water, soil and air - can be reduced further and further. This creates opportunities for specific species on the farm and in the surrounding countryside.
3. Finally, there is the matter of maintaining landscape elements and measures for specific species on the farm. The construction and conservation of landscape features make it possible to maintain a green infrastructure at agricultural establishments. This is important for the flora and fauna in agricultural areas. Landscape elements, in turn, also play a part in improving the functional agro-biodiversity on the farm.

The report produced by WUR and the Louis Bolk Institute shows that many of the measures have a positive impact on one or more of the aspects for biodiversity, environment and climate. However, they will require a variety of investments in machinery and farm design, especially in the short term. The long-term picture will be quite different and the financial benefits for the farmer are set to increase. The researchers indicate that there are also measures of a 'no regret' character, which are always cost-effective, such as measures for the purpose of soil management and the optimisation of cycles.

In the study, WUR and the Louis Bolk Institute examine the effects of measures when considered in isolation. As the link between the dimensions referred to above shows, completing a list of individual measures without considering their interconnections will not suffice. Instead, several measures will have to be taken together if nature is to be included to a greater extent. This holds true at a farm level, in order to bring about coherence and optimum impact in the production system, and at a regional level, in order to achieve optimum effects in the ecological system. Coordinated measures - an integrated approach - will result in reduced pressure on the environment, improvement of biodiversity, positive effects on climate change adaptation and mitigation, and a more resilient production system. The measures considered in the study are set out below.

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<sup>1</sup> Measures for Nature-based agriculture, Louis Bolk Institute (2017-035 LbD) and Wageningen University & Research (Wageningen Environmental Research Report 2821), December 2017

<i>Measures</i>	<i>Purpose or function</i>
To modify manure quality and diversity (fresh manure, limit fertiliser, manure quality)	Structure of organic matter, to limit emissions, stimulate soil life, food and nesting opportunities for specific species
Conservation tillage	To keep remains of crops in topsoil, reduced breakdown of organic matter and less disruption of soil life
Extend the cultivation plan for fields	Organic matter structure, improvement of soil structure and increased pest resistance
Green manures, buffer crops, keeping fields green all year round	To fix nutrients, stimulate soil life, improve soil structure and organic matter production
Choice of or reduction in the use of plant protection products	Less disruption of the food web for specific species; product quality
Farm with fully grass-fed livestock	Grassland having a positive impact on: <ul style="list-style-type: none"> <li>- soil quality (organic matter and soil life),</li> <li>- limiting nutrient and pesticide leaching into surface water, and</li> <li>- biodiversity in topsoil</li> </ul>
Herb-rich grassland	To improve soil, roughage, animal health and meadow birds
Outdoor grazing	Animal welfare and health, closing cycles and limit ammonia
Build a marshland system	To improve conditions for meadow birds
Wet agriculture and other cattle breeds in saturated peat meadow areas	To limit CO <sub>2</sub> emissions in peat meadow areas, cleaner water, greater water conservation, higher level of diversity in species and landscapes
Construction and maintenance of landscape elements	Creating food web of functional agro-biodiversity, natural values (species) and landscape

### **Levels of nature-based agriculture**

At farm level, WUR and the Louis Bolk Institute make a distinction between different levels of nature-based agriculture, in line with the aforementioned measures and depending on the coherence between the measures and the connection between the farm and its environment.

- Level 0: There is compliance with regulations only. The inclusion of nature does not feature in the farming practice.
- Level 1: Biodiversity is advanced by taking measures for specific species on part of the land, for example, measures connected with the collective approach of agri-environmental schemes, but also by putting up nest boxes or through farmyard vegetation. Organic pest control in greenhouses is also included at this level.
- Level 2: In order to improve functional biodiversity nutrient cycles on the farm are optimised, scope is given for animals' natural behaviour, and landscape elements are constructed and maintained as a means of supporting functional agro-biodiversity. In addition, measures in respect of specific species are taken.
- Level 3: An adaptive system where cycles are optimised and where the crops grown and livestock breeds kept reflect the characteristics of the environment, as well as the options it offers and precludes. Creating and preserving landscape elements and measures for specific species are an integral part of farming practice. The farm is part of an integrated system with the surrounding landscape and neighbouring farms.

These levels enable farmers to set to work on nature-based agriculture, each starting from his own particular situation. By integrating the aforementioned measures gradually into the farming methods used, a farmer can advance through the levels, in line with his own ambitions in this area.

## **Scenarios and the corresponding input on the part of the central government**

Classifying the inclusion of nature into levels can also be used as a means to formulate the central government's ambitions for the development of nature-based agriculture. The level of input depends on the extent of the ambition formulated and the deadline within which it is to be realised. Regardless of the ambition, the development of nature-based agriculture will involve collaboration with the provinces and water authorities because it is specifically at a regional level that development will be translated into concrete measures. Without being overly specific about the possible ambitions at this point, I broadly envisage three potential scenarios:

### Scenario: Civil society impetus determines the pace and the national government provides support

The current development initiated by societal stakeholders continues at its own pace. The national government does not set specific ambitions nor the deadlines within which they are to be realised.

The central government facilitates the development by concentrating on:

- Developing and disseminating knowledge about nature-based agriculture, e.g. by encouraging the inclusion of nature in farming practice to be addressed as a subject in education and in research, for example as part of the National Science Agenda.
- Collaborating with the provinces and the water authorities, as well as stakeholders from the food chain, guided largely by the ambitions of the other parties.
- Encouraging the formation of networks between frontrunners in the area of nature-based agriculture and stakeholders wishing to join in, with the aim of enabling parties to learn from each other within the network.
- Engaging with promising initiatives introduced by societal stakeholders and, where appropriate, supporting them, for example by concluding Green Deals, providing knowledge capacity or one-off subsidies.

### Scenario: Nature-based agriculture gains a foothold and the national government actively provides guidance

In time, there will be greater inclusion of nature throughout the agricultural sector, for example through the integration of a number of measures resulting from the study conducted by WUR and the Louis Bolk Institute into farming practice. The number of farms in level 2 of the abovementioned classification is growing steadily and is set to represent a significant part of the sector within the next 10 to 15 years. The central government encourages the development of nature-based agriculture and actively provides scope for it in its policy by:

- Encouraging farms to make the transition to nature-based farming practices through financial tools such as demonstration or promotional schemes, tax instruments and/or security or guarantee facilities.
- Collaborating with the provinces, water authorities and stakeholders from the food chain on the basis of a common programme or framework.
- Stimulating innovation through farms and farm partnerships based on the knowledge developed, for example through pilots and experiments involving nature-based business models or through knowledge and innovation vouchers; implementing and embedding the knowledge acquired in agricultural education.
- Providing scope in regulations for nature-based forms of farming, for example by actively investigating where current regulations hamper nature-based farming practices.
- In consultation with, among others, parties in the chain, financial institutions and regional authorities, identifying the financial, economic, policy-related and legal barriers which are impeding the faster development of nature-based agriculture and working on their elimination.

### Scenario: Transition - the nature-based approach becomes the standard farming model with the national government taking the lead

In this scenario, the majority of agricultural establishments in the Netherlands will be using the nature-based approach within a single generation, with level 2 of the abovementioned classification being the standard. Among other things, this will mean tackling problems which feature at a regional level. Naturally, collaboration with the provinces and water authorities will be a necessary precondition for this. A discussion will also be needed about the ratio between production for export and production for the domestic market, and domestic demand for nature-based products produced in the Netherlands will need to rise. A level playing field at European level will be a key area requiring attention. Alongside a facilitating and encouraging role, as in the case of the above scenarios, the central government will also play an active regulatory and steering role in this scenario.

- An active role for the national government, the provinces and the water authorities in an area-based approach where other stakeholders (farms, cities, citizens and NGOs) join to deal with societal challenges. Examples include an action plan to deal with subsidence in peat grazing areas, which also includes the prospects for wet cultivation and regional product sales.
- Setting frameworks through regulations and policy, making the inclusion of nature in farming practice compulsory.

These scenarios are some first ideas. What form the development of nature-based agriculture will take and the corresponding specific efforts required on the part of the government depend on the ambitions to be formulated and will require close collaboration with other parties: with the provinces, of course, but also with the water authorities, parties in the food chain, parties involved in education and research, financial institutions and NGOs.

### **Current developments**

The scenarios outlined above are based on the current developments in nature-based agriculture. In recent years, active steps have been taken in the Netherlands to give direction and substance to the course of nature-based agriculture, in part stemming from the central government's Nature Vision (*Rijksnatuurvisie*) and the government's food policy. Civil society organisations, businesses, educational establishments and citizens have launched initiatives. The provinces and the water authorities are working on the further implementation and development of nature-based agriculture. A nature-based agriculture network has been created, and it presented the Nature-Based Agriculture Manifesto during the Food Summit held in January of this year. The agricultural collectives, grouped together in BoerenNatuur.nl, have prepared their own position paper on nature-based agriculture. As is stated in the appended report, nature-based agriculture, focusing on soil quality and the quality of the landscape, will be able to make a specific contribution to climate-related tasks. This will be important for the implementation of the Paris climate agreement for agriculture and horticulture.

The central government too is working on the development of nature-based agriculture from its own specific perspective. Let me give you some examples:

- In my letter on the modernisation and simplification of the Common Agricultural Policy (CAP) (3 July 2017, Parliamentary paper 28 625, No. 247) I indicated that my efforts for the future CAP will be directed at converting direct payments into targeted support for services to society. Nature-based farming practices will also have to be involved. The recently adopted resolution put forward by Ouwehand (Parliamentary paper 33 576, No. 110) on subsidies to help farmers switch to nature-based and/or organic agriculture goes along those lines. I am also making efforts to encourage sustainable choices by consumers so as to generate demand and, consequently, create a market for sustainably produced food, even though it will cost more.
- The National Forest Service in the Netherlands (Staatsbosbeheer) is setting up experiments involving nature-based agriculture with a number of its tenant farmers.

- I have concluded the 'Nature-Based Land Use by Herenboeren' and 'Meadow Pigs' Green Deals which include, among other things, an investigation of where current regulations obstruct nature-based farming.
- I have launched a process with the aim of developing a bee strategy.
- I am supporting the Commonland Foundation in its approach to landscape restoration with a business case in the peat meadow areas surrounding Amsterdam.

I welcome current developments within society which promote nature-based agriculture. They show that the agricultural community is working hard on creating a sector where goods are produced within the limits of the ecological system's carrying capacity. It is also apparent that the public is highly engaged with the future of food production in the Netherlands. The developments in the area of urban agriculture and the fact that an increasing number of establishments, including in the food sector, wish to become ever more transparent regarding their impact on natural and social capital (natural capital accounting and integrated reporting) are further evidence of this.

Nature-based agriculture is still in an early phase of its development. At present, it is mainly the frontrunners who are taking steps and a great deal of additional reach is required. Moreover, the transition from production maximisation to an optimisation of production in relation to the environment will require a cultural shift and a change to the system. This will take time. That is why the most important thing in this phase is to provide farmers with a perspective of the steps that can be taken to enable them to adopt more nature-based farming practices: it must be possible for every farmer to take measures which involve greater consideration for the natural environment. In this development process every step counts, whether it is a large one or a small one.

The Minister for Agriculture  
M.H.P. van Dam