



# Farmer's perspectives on Water, Land and Cattail Crops

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In conversation with farmers

The report is written as part of the project 'Veenpower' that is hosted by Wetlands International.  
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Front picture: cattail farming  
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## Preface

This is the brief summary of the research I did to the perceptions of Dutch farmers on peat soils concerning wet cultures. Cattail farming is one example of the long list of potential crops suitable for wet culture, or paludiculture. The eight recommendations that I do, focus on the cultivation of cattail. However, the recommendations are broader applicable; I believe that most of them will help in many cases and that cattail farming is one example of application.

This summary is for everyone who aims to get a quick insight in the recommendations. If deeper insight in the background and results is requested, I invite you to open the report itself.

The report can be downloaded at: <https://www.wetlands.org/publications/farmers-perspectives-water-land-cattail-crops/>

# Summary

## Background and research

The soil of extensive Dutch peatlands in the western and northern parts of the country is subsiding because of drainage. In other words, large parts of the soil surface are descending. The typical Dutch landscapes that are strongly linked to these peaty areas are well known for their cultural value, abundance of cattle, mills and wide, open character. Also, they are home to the much valued Lapwings, Godwits and other meadow birds.

This landscape is constructed to facilitate mostly dairy farming and intensive dairy farming requires drained soils. Due to this drainage however the soil subsides, mostly due to oxidation. The land subsidence averages 8 mm per year, but reaches 2 cm per year at the deepest drained locations. Carbon that was stocked in the peat oxides, transforms into CO<sub>2</sub> and escapes, water is withdrawn from wet nature areas and the costs related to land subsidence rise due to increased drainage and the maintenance of infrastructure and buildings. Born et al. estimates these latter costs at 17,1 to 21,5 billion Euro for urban areas and 1,2 million for rural until 2050. Furthermore, the risk of flooding increases due to subsidence in combination with the rising sea level and more water entering the area via Germany. Many other indirect and invisible costs stay hidden.

Paludiculture, or 'wet farming' is an alternative land use that cultivates crop species that are naturally adapted to wet circumstances. The groundwater table therefore varies between 0 and 20 cm below soil surface, which reduces considerably harmful oxidation and soil subsidence. Wetlands International hosts the project 'Veenpower' that aims to promote and facilitate the realization of paludiculture in the Dutch peatlands in order to reduce soil subsidence.

Dairy farmers form the largest group of landowners in the area and are therefore the most important stakeholders. They decide on the introduction of paludiculture on their terrain. Questions arise about their attitudes, positions and perspectives regarding paludiculture and about their motivations or reservations. To get an indication, an inventory was undertaken among ten different farmers in the two main peat regions of the Netherlands. The interview covered the related, broad themes 'change', 'soil subsidence and groundwater tables', 'nature and landscape' and 'responsibility within the society'. This research only regards the cultivation of cattail and does not take into account the other possible paludiculture crops.

Based on the results 8 recommendations were developed.

### Recommendation 1. Listen

Communication between people from different backgrounds can be challenging and difficult. Both parties use a different language and base their statements on different beliefs of the truth. For example, in the farmer's eyes his land is not subsiding, whilst it is according to Veenpower. The farmer's belief is based on his daily experience in the field, Veenpower's on scientific information. Additionally, both might express the same phenomenon in different terms. The only way to deal with this is in conversation with farmers while listening well to them. Languages will be more comparable, the relation and trust will be encouraged, and the underlying beliefs of the farmer will become clear.

Most farmers are open to advise. But when they feel overlooked because their knowledge is not valued and others claim to know more about the land, they will not feel engaged.

- Listen to the farmers and search for common grounds that form the starting point of further conversation about cattail farming. Avoid discussions on what is truth or not but focus instead on putting in perspective the different beliefs (see 3.).
- Veenpower should prioritise listening, not informing.
- Use the term ‘wet farming’ (‘natte teelten’) or ‘cattail farming’ (lisdoddeteelten) and avoid ‘paludiculture’.

## **Recommendation 2. Cattail as new opportunity and for sustainable soil management**

Motivation for cattail farming and problems of soil subsidence were not correlated. Thus the motivation for cattail farming was often different than the soil subsidence issue. The few farmers that encountered problems with soil subsidence and felt involved however were open to and interested in cattail farming. Yet some farmers encountered problems with soil subsidence but nevertheless felt not involved. For example because the land was not theirs and rented. Also, some cattail-oriented farmers were very unconcerned about soil subsidence. The conclusion is that constraints due to soil subsidence are a motivation for a small and select group, whilst a much larger group is interested. These interests are mainly born from a financial motivation.

Although finances might be the leading motivation for the farmer, it is wise for Veenpower to be open and transparent about its soil-related motivations. Subsidence prevention can be a positive side-effect of cattail farming for the farmer. Above that, it is important to know for the farmer where the motivation of Veenpower comes from. Transparency was often brought forward as important, though it is important not to talk in terms of problems (see 3.)

- Communicate about cattail farming as an opportunity for financial broadening or new chance for plots where soil subsidence is an urgent problem.
- Be open and transparent about the soil related motivations of Veenpower.

## **Recommendation 3. Do not talk in terms of problems**

Farmers often have the impression that they get blamed for problems that are of a broader origin. Loss of biodiversity and deterioration of air and water quality are often mentioned. The farmers do not consider themselves to be the main cause of the problem or the problem might be broader and they are forced into a position, for example by low prices for their products. Nevertheless, they get the blame and they feel falsely accused.

Not all farmers believe in the use of paludiculture to prevent soil subsidence. Sometimes they bring causes for soil subsidence forward that are different than low groundwater tables. Some simply do not believe in the positive effects of cattail farming. In such cases it is advised to provide accessible information about the causes of soil subsidence without denying the truth of the farmer. The causes that they mention are often part of the problem, but need to be put in perspective.

- Do not talk in terms of problems. Farmers will react defensively or stop talking. Point out instead the new chances that cattail farmer can offer on wet plots or the opportunities for financial broadening when the farmer has no subsidence issues.
- Be open about the soil related motivations of Veenpower. Make knowledge about the different causes of soil subsidence easily accessible, for example via a website. Avoid overly scientific language, involve preferably farmers themselves.
- Use the term ‘sustainable soil management’
- For some farmers, the financial motivation will be the only motivation.

#### **Recommendation 4. No banks or subsidies, instead: real purchasers**

Farmers were not very positive about banks and the government, the involvement of these institutions does not automatically lead to better trust from the farmers. The government can be capricious and farmers are hesitant to count on it on the long term. They avoid long term subsidies. Only temporal subsidies to overcome the initial period are an option. Also, most farmers avoid additional debts at the bank. It however did not become clear whether farmers did or did not see a role for banks as investors in funds.

- Search companies that are willing to enter a purchase guarantee of raw cattail products.
- Focus on temporal subsidies only covering the initial period, but encouraging the farmer to be quickly independent.

#### **Recommendation 5. Stimulate broad support**

Many farmers are aware of their role within the larger society. They try to listen to what modern society expects from them. Animal friendly, local products and sustainability are examples. If soil subsidence is increasingly perceived by the ‘normal citizen’ or the society as problematic, it will be a motivation for farmers to cope with it. This will also have a positive effect on the image of the (individual) farmer.

- Search for channels that stay behind Veenpower, but also appeal to the ‘normal citizen’. Think about Natuurmonumenten, Staatsbosbeheer or others.
- Encourage broad communication and bring people in contact with the idea and the cattail fields. Organize excursions, make information panels and walking trails through the fields.
- Indicate the sustainable soil management and the new opportunities that farmers get by it.

#### **Recommendation 6. Think about meadow birds**

The wettest fields are potentially suitable for both wet agriculture and meadow birds. Wetlands International supports both. Therefore, a well-grounded opinion about this potential conflict is needed. Think for example about a mosaic perspective. Not all wet fields are suitable for meadow birds, for example if there are high trees adjacent.

Much remains to be done on the management level. Many farmers witness the mismatch between meadow bird management and the real meadow birds. In the process of meadow bird management and the spatial planning of the region, a space for paludiculture might be found. Lobbying is required.

- Decide internally on a cattail perspective that includes considerations for meadow birds
- Speak with policy makers and region planners.

#### **Recommendation 7. The farmers’ concern**

Cattail farming as an agricultural activity affects predominantly farmers and for farmers their farming business is part of their identity. This includes their animals. Farmers showed a strong emotional connection to the farm, the animals and the land. This was in many cases much stronger than the financial concerns. The cattle and all linked emotions are the main concern of the farmer. Their choices are based on that, finances are inferior to it. Although Veenpower envisions a combination of both cattle and wet farming, the policy needs to give space to these emotional and feelings-based concerns, otherwise farmers will feel overlooked. Veenpower should be their ally, not their enemy.

- Include part of the farmer's concern in the policy strategy.

### **Recommendation 8. Focus on cattail in a broad sense**

Before alternative, sustainable land use practices – of which cattail farming is one option – cover large areas, they need to enter the local culture. Most the farmers awaits the results of the pioneers before adapting. People need to get used to it, both farmers and local inhabitants and that takes time.

Paludicultural practices that are located on other places than Veenpower had initially planned, have their own value: via them cattail farming enters the culture and accustomates people to the idea. This includes cattail farming locations that do not reduce soil subsidence, for example along ditches. Also, with the first raw products, the market for it is developed.

- Encourage all cattail initiatives, also the ones that are less effective against soil subsidence.
- Be patient.

### **Expectations**

Cattail farming as part of the broader set of 'wet crop cultures' is possible in the Netherlands. It however requires good communication and time before wet farming will become a large-scale practice. Nevertheless, every hectare of cattail or other 'wet farming' is a step in the direction of sustainable land use that reduces soil subsidence and greenhouse gas emission, and enhances biodiversity, and soil and water quality.

Although for some it might be less the case, still a large amount of the farmers will always perceive their cattle as part of their identity and their main task. They have chosen for this and identify themselves with it. That drives them more than the financial motives behind cattail or cattle. Cattail farming will for most farmers be no more than a secondary income.

Both Veenpower and the farmers envision a mosaic landscape where cattail farming can find a place. This will significantly change the landscapes and also the nature that finds its place in these landscapes. For example, at cattail fields, the meadow birds are excluded but other wildlife might find a place. Per location a choice needs to be made: cattail or meadow birds.