

Climate Hemp

– cultivating hemp and building regional value chains



Photo: W. Schäkel



Name	Climate Hemp « Klimahanf »
Country	Germany
Biogeographical Region	Continental
Region	Prignitz, Brandenburg and neighbouring regions North Rhine-Westphalia & Mecklenburg
Landscape/Ecosystem type/protected area	Dry, flat agricultural area, including marginalized sandy soils
Size/Scope	1,000 ha of hemp cultivation
Type of farm	Conventional and organic crop farms & mixed farms
Agricultural Use	Crop farming with industrial hemp
Best practice/main idea	The Landcare association supports the growing and marketing of industrial hemp as a crop suitable for the dry region, showing farmers how to improve their climate resilience and contribute to climate protection.
Involved Stakeholders/ Partners	Landcare association "LPV Prignitz Ruppiner Land" Farmers, industry (textile, building materials, food), North Rhine-Westphalia Chamber of Agriculture, local media, local artists (paper center "paho"), association for construction with hemp "Hanfbau-Kollektiv"
Duration	Since 2018: working group on hemp in the Landcare Association 2021-2024: funded project "climate hemp"

Goals	- Promote the cultivation of industrial hemp - Establish regional and sustainable economic cycles
Measures addressing water and soil management	- Hemp has a deep root system that can loosen the soil, promote earthworms and microbes, and build humus. - The early-growing, dense canopy reduces soil erosion and soil evaporation. - Hemp can withstand short heat and dry periods
Measures addressing biodiversity, climate	Climate: - Hemp binds CO₂ from the atmosphere and stores it long-term when processed for material use. Biodiversity: - Hemp pollen benefits insects and pollinators - Birds profit from the hemp seeds - Hemp requires little pesticide/fertilizer inputs
Funding/Financing	- Project "Climate Hemp" (03/21 - 03/22) financed by the Brandenburg Ministry of Agriculture and Climate Protection - Direct Payments for the cultivation of hemp via CAP
Transferability	- In case of industrial hemp, there is a need for cooperation with nearby manufacturing industries. - Hemp for food: processing machinery, (oil press) can be purchased for smaller amounts.
Tip/suggestion from the farmer	- Producing hemp for food is economically viable when the oil is sold directly. - Hemp in the crop rotation reduces pressure from pests.
Role of Landcare Associations	- Creating a competence and information network for hemp farming and processing - Consulting farmers on the cultivation of hemp - Providing specialized machinery for farmers to rent ("Maschinenring") - Collaboration with the industry for fibre, insulation, and building materials. - Public relations work, field days, conferences, and close collaboration with the local media.
Further information	Projekt information: https://www.lpv-prignitz-ruppin.de/projekte/hanf/ (German)
Contact information	Landschaftspflegeverband Prignitz - Ruppiner Land e.V. kontakt@LPV-Prignitz-Ruppin.de

"In some places, rapeseed or cruciferous crops can no longer be grown because pests are quick to appear. But with hemp, we can completely break this cycle," Andreas Bergmann

Hemp as an alternative crop for dry regions

Brandenburg and especially the region of Prignitz has a long tradition in cultivating and processing hemp, especially for textiles. However, due to the use of synthetic textiles, hemp has strongly lost significance as it was not profitable anymore.

"The initiative to work on the hemp topic came from our farmers," says Andreas Bergmann, chairman of the regional Landcare Association Landschaftspflegeverband "Prignitz - Ruppiner Land e.V." and active farmer himself. Hemp has several advantages from a farming point of view: ideal conditions are medium-heavy, deep, humus-rich soils with good drainage and a pH value above 6.0. However, the relatively undemanding plant thrives in almost all types of soil, including marginal sites with low soil fertility. Moreover, it requires very little pest control. Its deep root system can loosen the soil, promote earthworms and microbes, and thus build humus and improve water retention and availability. The dense canopy reduces soil erosion and soil evaporation. While water availability is important in the first 4 weeks after seeding (from mid-April onwards), the plant can then withstand long droughts. Hemp can also be used as a catch crop in early July for fibre or whole plant use with a growing season of around 90 days, e.g., following winter barley, early potatoes or field vegetables. No cultivation work is required between sowing and harvest. When harvested in autumn, the plant can use the full vegetation period for biomass production compared to maize, grain, or rape. "Harvesting in the summer is like removing solar panels in the summer month," states Andreas Bergmann. These characteristics make hemp an alternative to the widespread cultivation of silage maize or using land for solar panels, which is popular in the dry region of Brandenburg.



© Andreas Bergmann

As every part of the plant can be processed, a great variety of products can be made from hemp: the stems, along with their fibres and shivs, provide a wide range of material uses, such as insulation, building blocks, textiles, or paper. The flowers, leaves, and seeds can be used to

make healthy foods such as hemp tea and oil. Hemp oil is very healthy as it contains vitamin E, and its omega-3 to omega-6 fatty acids have an optimal ratio of 1:3 in hemp oil.

Therefore, the Landcare association decided to promote the plant in their region in alliance with their main objectives: "to preserve a diverse, species-rich cultural landscape, to support local agriculture, and to strengthen regional economic cycles".

Competence and information network for hemp

In 2018, they started a working group on hemp in the association. They exchanged with the hemp processing company 'Hanffaser Uckermark' ("Hemp fibre Uckermark"), which has been producing natural, high-quality insulation and building materials since 1996. As a next step, they organized an information session at the Germany-wide fair for green agriculture, 'Green Week,' in Berlin. Further, the LCA had meetings with producers of the "Nettle Fibre Company GmbH" (NFC) in Wittstock and the North Rhine-Westphalia Chamber of Agriculture. All parties- farming, politics, and industry- were interested in the topic and open to new cooperation. After a failed attempt to launch a project, success came in March 2021: The Landcare Association "Prignitz - Ruppiner Land e.V." started the project "Climate Hemp" to establish the "Industrial Hemp Competence Network" with two small staff positions and funding from a regional funding programme on cooperation.



© Andreas Bergmann

The network consults farmers on the hemp cultivation and provides specialized machinery for farmers to rent ("Maschinenring"). Moreover, they organised workshops and field days to raise awareness of hemp building materials. A key question was how the positive aspects of hemp cultivation could be turned into an economically viable business. In spring 2021, the LCA supported the artists at the "Centre for Paper" in Großderschau by providing them with hemp materials for their work. During that event, they noticed that hemp is also interesting for the construction industry. Today there is a demonstration site with building material made from hemp near the town of Neuruppin where people can experience the various materials for themselves.

Outlook

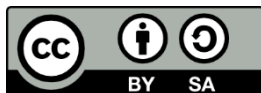
Hemp cultivation in the catchment area of the Landcare association's territory, including the neighbouring Mecklenburg Lake District, is approx. 1,000 ha of industrial hemp for food, textile and building materials. They have close links between industrial hemp cultivation and the processing and utilisation of raw materials. New efforts aim to create revenue from hemp's CO₂ sequestration capacity through CO₂ certificates.

However, there is a need to improve the regulatory framework. Restrictions concern strict regulations for farmers regarding growing industrial hemp, including restrictions on varieties regarding the THC limit (certified seed) and presentation of official seed labels, inspections and sample taking (for max. THC level 0.3%) and harvest authorisation.

Concerning food marketing, the recommendations of the "Federal Institute for Risk Assessment" (BfR) significantly hinder the sale of products such as hemp leaf tea. Industrial hemp should therefore be removed from the scope of the Narcotics Act (BtMG).

"The potential for industrial hemp cultivation in the region is at least 5,000 ha," concludes Andreas Bergmann.

Authors: Dr. Henrik Stamer & Andreas Bergmann, LPV Prignitz - Ruppiner Land e.V.,
Corinna Friedrich, DVL, 16.03.26



This work is licensed under CC BY SA 4.0. Photographs containing identifiable persons are excluded from this license and may not be used without additional permission.

Water~Farmers



Co-funded by
the European Union

'Funded by the European Union. However, the views and opinions expressed are solely those of the author(s) and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor the EACEA can be held responsible for them.'