# Press article Agroforestry

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# Press article 500words

### Introducing woody vegetation into arable and livestock farming

### Agroforestry: a win-win for nature and the farmer

Wind erosion and water availability have been climate change challenges for decades in the German region of Brandenburg. Thomas Domin found a solution to this: agroforestry. In 2014 he started dividing his maize, oat and rye fields into smaller blocks surrounded by black locust, oak and poplar trees. Rows of trees were planted around the meadows which were home to cattle, chicken and geese. He now has in total 7 hectares of 9 different wood strips that represent 12% of his fields. They are helping reduce climatic problems as well as providing additional profits: both Thomas and nature have won.

Strong winds, sandy soil and low rainfall made Thomas' fields vulnerable to wind erosion. Because of this, field management was restricted by European regulations. After introducing tree strips on his fields, the wind speed reduced so significantly that the restrictions no longer applied. Thomas is happy: "My fields don't suffer from wind erosion any more, and water availability has improved significantly". The trees act as a buffer between the arable land and ditches. Their deep roots take up nutrients from deeper soil areas or from ground water reducing nitrate leaching. The lower wind speed and the increased shade lead to lower evaporation, leaving more water for the crops.

His free-ranging animals are happy too: the trees provide shade and milder microclimatic conditions. Thomas: "We also introduced chicken farming, however we had to stop because of problems with birds of prey. As soon as the trees are bigger, we will start a new trial."

Agroforestry systems not only provide climate and soil solutions, the trees can also provide additional profits. Thomas: "The poplar trees are harvested as 'energy crops' and soon we have high quality round wood for sale: two additional products for the farm."

In 2014, Thomas joined an innovation project on Agroforestry 'Aufwerten' ('Revalue' in English) together with two universities, a research centre, the local community and a local biomass association. One of the solutions they are working on is related to the harvesting and storage of wood. Ralf Pecenka, from Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB) explains: "Harvesting in an agroforestry environment is costly. Forage harvesters are heavy and expensive machines that can only harvest fine wood chips of 30mm. These fine chips result in up to 25% of dry matter losses during storage and drying."

ATB has developed a simple mower-chipper that every farmer with a standard tractor can use. Chip length with this machine can be adjusted up to 120mm and trees with trunk diameters of 20cm can be harvested. "Our storage tests have shown that 75mm chips are best, with a storage loss of 'only' 17%. However, 17% is still a lot. We are now testing other storage and drying techniques such as cold air-ventilation."

Thomas and his partners are investigating and promoting agroforestry as a more sustainable agricultural system in Germany. Thomas welcomes everyone on his farm: "Whether you are a student group or politician: I am happy to tell anybody about agroforestry and its many benefits".



# Press article 250words

Introducing woody vegetation into arable and livestock farming

#### **Agroforestry: a win-win for nature and the farmer**

Wind erosion and water availability have been climate change challenges for decades in the German region of Brandenburg. Thomas Domin found a solution to this: agroforestry. He now has in total 7 hectares of 9 different wood strips, helping reduce climatic problems and providing additional profits.

Strong winds, sandy soil and low rainfall made Thomas' fields vulnerable to wind erosion. After introducing tree strips on his fields, the wind speed reduced significantly. Thomas is happy: "The trees act as a buffer between the arable land and ditches. Their deep roots take up nutrients from deeper soil areas or from ground water reducing nitrate leaching. The lower wind speed and the increased shade lead to lower evaporation." His free animals are happy too: the trees provide shade and milder microclimatic conditions.

Agroforestry systems provide additional profits. Thomas: "The poplar trees are harvested as 'energy crops' and soon we have high quality round wood for sale."

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# **Background information**

## **More information on Domin Farm**

Domin Farm: www.landwirt-domin.de

Innovation project 'Aufwerten':

- <u>https://innovationsgruppen-landmanagement.de/en/innovation-groups/aufwerten/</u>
- Project website: <u>www.agroforst-info.de</u>
- Promotional video on agroforestry: <u>https://www.youtube.com/watch?v=GdkEtS2G0r0</u>



#### **Picture**



Poplar stripes on arable land (oat left, rye right)

## More information on agroforestry

- EIP-AGRI Focus Group Agroforestry, introducing woody vegetation
- EIP-AGRI Factsheet Agroforestry
- EIP-AGRI workshop New value chains from multifunctional forests

## **EIP-AGRI Inspiration from your country on agroforestry?**

Here below you find a list of topics that have been covered in one of the EIP-AGRI events and / or EIP-AGRI publications.

EU	Agroforestry Innovation Networks – AFINET	Workshop Organic is Operation
		p30
EU	Agforward, Agroforestry for Europe	Video channel
France	From great soil comes great food – a farmers' story	Inspirational idea
France	Improving forestry value chains in Finland	Inspirational idea
Germany	Climate-friendly practices	<b>Inspirational idea</b>
Italy		
Sweden		
Portugal	Herdade do Freixo do Meio, Montado System as an ance	Workshop New Value Chains
	Agroecologic model	multifunctional forests p.19
Spain	Beealia: low input agroforestry system to produce high a	Workshop New Value Chains
	value lamb and kid meat	multifunctional forests p.17
Spain	Galician milk farm in harmony with nature and Agricultur	Workshop Organic is Operation
	Biodiversity	p31
UK	Livestock agroforestry - combining forestry with livestock	Workshop New Value Chains
	husbandry: woodland eggs and poultry	multifunctional forests p.18



#### **EIP-AGRI**

The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) is one of five EIPs which have been launched by the European Commission in a bid to promote rapid modernisation of the sectors concerned, by stepping up innovation efforts.

The EIP-AGRI aims to foster innovation in the agricultural and forestry sectors by bringing research and practice closer together – in research and innovation projects as well as via the EIP-AGRI network.

EIPs aim to streamline, simplify and better coordinate existing instruments and initiatives, and complement them with actions where necessary. Two specific funding sources are particularly important for the EIP-AGRI: the EU Research and Innovation framework, Horizon 2020, as well as the EU Rural Development Policy.

- EIP-AGRI Brochure on the EIP-AGRI Network (2015) (EN FR GR HU IT PT RO SP)
- EIP-AGRI Brochure on Thematic Networks under Horizon 2020 (EN FR HU SP)
- EIP-AGRI Brochure Horizon 2020 multi-actor projects (EN)
- EIP-AGRI Brochure on Funding opportunities under Horizon 2020 2018 Calls: (EN)

EIP-AGRI Operational Groups are groups of people who work together in an innovation project funded by Rural Development Programmes (RDPs). Operational Groups are the EIP-AGRI's main tool for turning innovative ideas into real solutions for the field.

An Operational Group consists of several partners with a common interest in a specific, practical innovation project. The people involved in the Operational Group should bring in different types of practical and, where necessary, scientific expertise. They may include farmers, scientists, agri-business representatives and many others. Every country or region has the possibility to define specific national demands or restrictions on how to put together an Operational Group.

Visit the <u>Operational Groups page</u> on the <u>EIP-AGRI website</u>

**EIP-AGRI Brochure on Operational Groups: Turning your idea into innovation (update 2016)** (EN – CZ – FR - HU – PT – SK – RO – SP)

#### More information on Operational Groups in your country

If you would like to cover a story on an Operational Group in your own country,

you can find following information on the EIP-AGRI website:

- <u>Check if your country will/ has set up Operational Groups</u>
- <u>Check if your country has set up a website where you can find information on the OGs</u>
   which have been selected for funding
- <u>Contact the Managing Authority in your country to find out more
  </u>
- Check the EIP-AGRI meeting point for Operational Groups in your country
- Contact the EIP-AGRI press officer to help you further: ina.vanhoye@eip-agri.eu

#### **Contact information**

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