

## AUSTRIA

### Biodiversity's restoration, preservation & enhancement

#### Location

Nationwide

#### Programming period

2014 – 2020

#### Priority

P4 – Ecosystems  
management

#### Measure

M11 – Organic farming

#### Funding (EUR)

Total budget ≈ 784 mil  
EAFRD ≈ 400.7 mil  
National/Region. ≈ 383.3 mil

#### Project duration

2015 – 2020

#### Project promoter

23 660 Austrian farms  
(2019)

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<https://www.bmlrt.gv.at/>

The Organic farming measure in the Austrian Rural Development Programme (RDP) helps preserve and enhance biodiversity; establish nutrient cycles on farms and reduce input, while also increasing soil fertility.

### Summary

In Austria, as in all European countries, national natural resources like water bodies, soil and biodiversity are threatened by the intensification of farming practices. At the same time, consumer awareness regarding sustainable production systems in agriculture is on the increase. As a result conventional farmers are highly motivated to switch to organic farming.



The RDP Measure 11 (M11) organic farming supports organic farms in Austria by granting an additional premium for the extra efforts required by organic farming practices and additional commitments. The primary objectives of M11 are to preserve and enhance biodiversity, establish nutrient cycles on farms and reduce input, as well as to increase soil fertility.

### Results

In 2019, the area dedicated to organic farming made up more than a quarter of the total agricultural area in Austria.

In 2018, organic farms had a more diverse and even distribution of field type use (i.e. a higher Shannon-index), than conventional farms.

In terms of biodiversity, in 2018 organic farms presented a higher proportion of extensively managed grassland and therefore a higher plant diversity on grassland than conventional farms.

### Lessons & Recommendations

- ❑ ❑ Evaluation studies have found that organic farms contribute more to the conservation and enhancement of natural resources like water, soil and biodiversity than conventional farms.
- ❑ ❑ The economic direction and farming techniques used for organic farming are often very intensive. Therefore, organic farming is not always better than conventional farming in terms of biodiversity.



Optional commitments, with an additional premium, may be implemented such as:

- Soil rehabilitation on arable land;
- Organic bee keeping;
- Flowering medicinal and aromatic plants on arable land; and
- Maintaining biodiversity flower strips on arable land.

Evaluation studies show that M11 supports the expansion of organic farming in Austria. As well as organic farmers benefiting from a market advantage, they can sell their produce at better price and gain a reputation in the food market. In addition, they are paid a premium for their additional efforts in production.

Generally speaking, under the current CAP period (2014-2020), organic farms in Austria have been evolving in two different directions:

On the one hand, large conventional farms on arable land are increasingly converting to organic agriculture. This development has accelerated the growth of the amount of land dedicated to organic farming in Austria but it has also increased the intensity with which the soil is being cultivated. This has reduced crop diversity, with a move towards high value crops such as soy and corn, which in comparison to using fields for other crops, can cause a high risk of soil erosion.

On the other hand, small and specialised farms have found their niches in the food market and have become more competitive thanks to direct marketing and high quality and specialised products. These include fruit and vegetables, flowering, healing and aromatic plants, endangered livestock breeds and rare cultivated plants.

An example of a highly specialised organic farm is 'Zemanek' an organic herbs and spice farm in Styria, in the south of Austria. It is a small-scale farm which cultivates medicinal and aromatic plants, with a very high crop / plant diversity and often with strip cultivation. Some of the products are sold directly (via their online shop and at regional markets) and the rest is produced for larger consumers (for 'Sonnentor' for example- a larger Austrian herb retailer). This type of small-scale, diverse and mixed cultivation represents a very low input system. The use of pesticides is reduced and/or replaced by growing herbs and spices that are complementary and with pest repellent properties, alongside one and other. The very high proportion of blooming and insect pollinated plants has a significant effect on the level of beneficial insects.

Herbs and spices in mixed cultivation can often only be cultivated and harvested manually, or with the aid of

smaller machines, which in turn facilitates good soil properties. In general, this type of production system is highly beneficial for biodiversity as many different types of insects find food among the many blooming plants (bees and butterflies for example) and insects such as locusts find shelter among the different growth structures.

## Main results

Thanks to M11 the area and number of farms who participate in organic farming has increased during the current RDP period (2014-2020). In 2019, the organic area included more than a quarter of the total agricultural area in Austria.

Evaluation studies have shown that compared to conventional farms, organic agriculture lowers the humus loss and erosion due to higher crop rotation, and therefore contributes to the protection of surface water bodies. Having many organic farms, over a large area, reduces the amount of pollution (less nitrates for example) because of the reduction in the use of fertilisers and pesticides. Nevertheless, in recent years the proportion of root and fodder crops has increased on organic farms (soy and corn for example) This has increased the risk of erosion and an intensified soil tillage, increasing the loss of humus and the input of nitrates into ground and surface water bodies.

In terms of biodiversity, in 2018 organic farms in Austria had a higher proportion of extensively managed grassland, and thus a higher plant diversity on grassland than conventional farms. Nevertheless, in the present RDP period (2014-2020) the proportion of extensively managed grassland on organic farms has been decreasing, an unfortunate trend for biodiversity.

A similar development has been observed for crop diversity: in 2018, organic farms had a more diverse, and a more even distribution of different types of field use (i.e. a higher Shannon-index), than conventional farms. This was due to the crop rotation systems of organic farms. The fact that the market for organic produce is more geared towards rare and endangered crops also had an impact. From 2017 onwards, crop diversity on organic farms decreased faster than on conventional farms. Evaluation studies show differentiated effects. On grassland, no effects were found on farmland birds, whereas on arable land, the quail benefits from organic areas. Organic farming did not appear to have a positive impact on the indicator species of butterflies and locusts.

## Key lessons

Thanks to the widespread and nationwide acceptance of M11, organic farming has induced sustainable, comprehensive and positive effects on soil, water and biodiversity in Austria.

The Measure essentially supports the expansion of organic farming in Austria, helped by additional premium accorded to farmers for the efforts linked to organic farming practices and additional commitments.

Evaluation studies have found a higher contribution of organic farms towards the conservation and enhancement of natural resources (water, soil and biodiversity), compared to conventional farms. While organic farms contribute towards the preservation of natural resources more effectively than conventional farms, there has been a decline in this contribution in recent years.

The techniques used for organic farming are often very intensive. Therefore, with respect to biodiversity, organic farming is not always more beneficial than conventional farming.

In general, the growth, expansion and development of organic farming in Austria can be rated as positive with

respect to the conservation of natural resources. Nevertheless, this growth has led to an intensification of organic farming methods in the last few years. This development decreases the general positive effect of organic farming on natural resources.

If, despite the growth in scope and the intensification of farming practices, the positive effects of organic farming on natural resources should continue in future, the commitments for organic farms will need to be refined.

This could be achieved by:

- The compulsory introduction of biodiversity flower strips;
- More explicit crop rotation commitments;
- More training on soil tillage;
- An increase in extensively organic grassland;
- The development of management strategies for the ploughing up of grassland; and
- Further development of mulch and direct drilling.



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## Additional sources of information

National evaluation report (in German):

[www.bmnt.gv.at/land/laendl\\_entwicklung/evaluierung/evaluierungsberichte/Evaluierungsbericht-fuer-den-Duchfuehrungszeitraum-2019.html](http://www.bmnt.gv.at/land/laendl_entwicklung/evaluierung/evaluierungsberichte/Evaluierungsbericht-fuer-den-Duchfuehrungszeitraum-2019.html)

Special directive concerning the implementation of the Austrian agri-environmental-climate scheme (in German):

[www.bmnt.gv.at/land/laendl\\_entwicklung/foerderinfo/sonderrichtlinien\\_auswahlkriterien/srl\\_oepul.html](http://www.bmnt.gv.at/land/laendl_entwicklung/foerderinfo/sonderrichtlinien_auswahlkriterien/srl_oepul.html)

Case study: <https://www.sonnentor.com/de-at>

Case study: <https://www.bio-zemanek.com/>