



MINISTERIUM  
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# „SUSTAINABLE AGRICULTURE AND SOIL QUALITY” IN AUSTRIA

DI ANDREA SPANISCHBERGER – 25.02.2016

# WHO IS RESPONSIBLE FOR SOIL LEGISLATION IN AUSTRIA?

**AGRICULTURAL SOILS:** PROVINCES (BUNDESLÄNDER)

**FOREST SOILS:** MINISTRY FOR AGRICULTURE, ENVIRONMENT,  
FORESTRY AND WATER

## SOIL PROTECTION ACTIVITIES FROM THE MINISTRY

- THE RURAL DEVELOPMENT PROGRAMME – INCL. AGRI-ENVIRONMENTAL PROGRAMME, THE NITRATE PROGRAMME, CONTAMINATION, FOREST ....
- RESEARCH PROGRAMMES
- ADVISORY FORUM FOR SOIL FERTILITY AND SOIL PROTECTION

## AUSTRIAN ENVIRONMENTAL PROGRAMME (ÖPUL 2015)

- Part of the Austrian Rural Development Programme
- Approved by the Commission in December 2014  
[https://www.bmlfuw.gv.at/land/laendl\\_entwicklung/leprogramm.html](https://www.bmlfuw.gv.at/land/laendl_entwicklung/leprogramm.html)
- Focus is to promote an environmentally friendly, extensive and habitat-protecting agriculture

# AUSTRIAN ENVIRONMENTAL PROGRAMME (ÖPUL 2015) - CONTENT

- **General Measures:** Environmentally friendly and biodiversity promoting management, nature conservation and organic farming
- **Arable Land Measures:** greening of arable and/intermediate crops, preventative groundwater conservation (regional), preventative surface water conservation on arable land (regional), cultivation of rare agricultural plants, greening of arable land/„system evergreen“, direct seeding and seeding on mulch, management of arable areas particularly threatened by leaching; renouncement of fungicides and growth regulators

## AUSTRIAN ENVIRONMENTAL PROGRAMME (ÖPUL 2015) - CONTENT

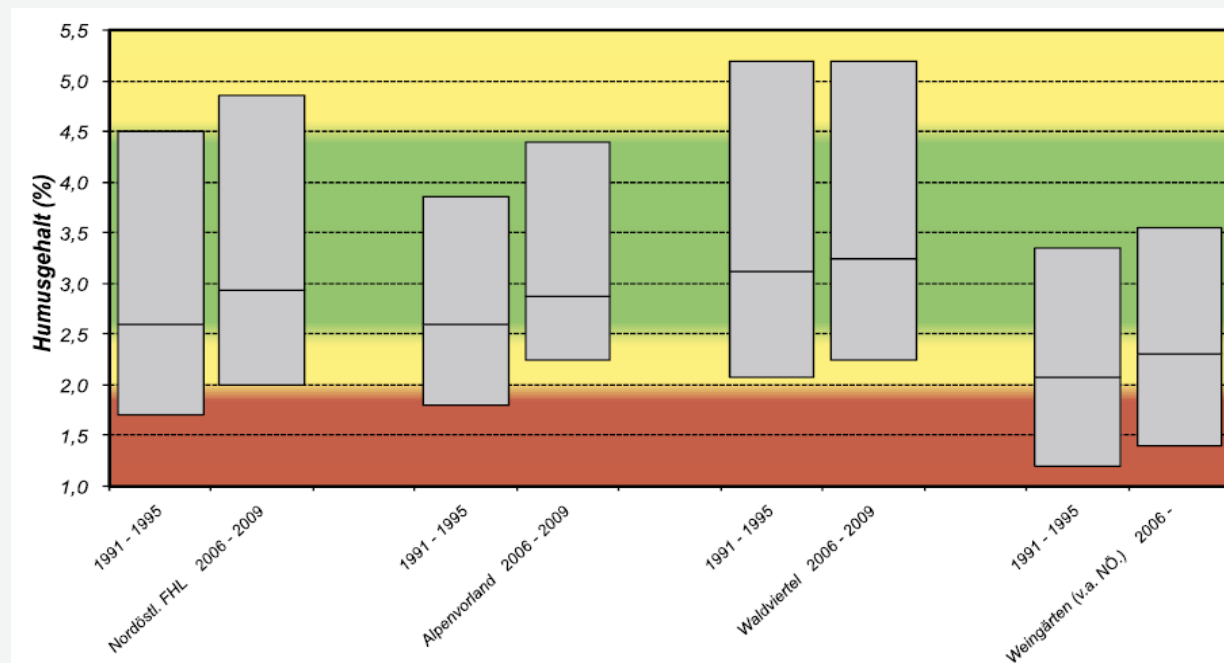
- **Grassland measures:** mountain grazing and herding, cultivation of mowed mountain grassland, limitation of yield increasing inputs
- **Other measures:** erosion protection in vineyards, fruits and hops, pesticide renouncement in vineyards and hops, use of beneficial organisms in greenhouses, surface-near spreading of liquid farm manure

## EVALUATION FROM THE LAST ENVIRONMENTAL PROGRAMMES

- Brochure from AGES: „soil protection through environmental friendly agriculture“
- Published 2011
- Download under:  
[http://www.ages.at/fileadmin/AGES2015/Service/Landwirtschaft/Boden\\_Datein/Broschueren/AGES\\_Bodenbroschuerer\\_Web.pdf](http://www.ages.at/fileadmin/AGES2015/Service/Landwirtschaft/Boden_Datein/Broschueren/AGES_Bodenbroschuerer_Web.pdf)

## EVALUATION FROM THE LAST PERIOD

Humuscontent of different regions 1991-1996 compared with 2006-2009



# AREAS UNDER SEVERAL ÖPUL MEASURES (1995 COMPARED WITH 2014) – GRÜNER BERICHT 2015

	1995	2014
<b>Einbezogene Flächen im Rahmen des Agrarumweltprogrammes (in Hektar)</b>		
Biologische Wirtschaftsweise	198.182	392.946
Verzicht Fungizide auf Getreideflächen	36.258	108.283
Integrierte Produktion Ackerflächen	8.717	68.124
Erosionsschutz Wein	3.735	31.758
Mulch- und Direktsaat	763	134.163

## ADVISORY FORUM FOR SOIL FERTILITY AND SOIL PROTECTION (WORKING SINCE 25 YEARS)

- is working since 25 years
- shall give advice to the Minister in soil issues
- plenum is constituted by soil experts from the Bundesländer, from the Ministry, from research institutes, from farmers association etc.
- working groups are also open to other interested experts
- is mainly dealing with e.g. questions of fertilizing different cultures (e.g. wine, arable crops, legumes or fruit trees)
- but also with other challenges like recultivation, assessment of soil functions, compost, plant ashes, and soil consumption

## ADVISORY FORUM FOR SOIL FERTILITY AND SOIL PROTECTION

- all results and brochures are published  
<https://www.bmlfuw.gv.at/land/produktion-maerkte/pflanzliche-produktion/boden-duengung.html>
- advice from this board is not binding for farmers (mostly used from the farmers association) or institutions but is sometimes included in regulations
- last brochures 2015:
  - about soil and climate: influence factors, data, measures and adaption possibilities
  - about possible measures to reduce soil sealing
- for 2016 e.g. a new brochure concerning fertilization of arable crops is in work



## ASSESSMENT OF SOIL FUNCTIONS – METHODOLOGICAL IMPLEMENTATION OF THE STANDARD L 1076



- importance of the multiplex functions of the soils e.g. production function, archive function, water save function or filter function are quite unknown to non soil experts
- therefore they are often not taken into account e.g. for spatial planning
- aim of this work is to help to protect high quality soils by providing this instrument to assist the spatial planning
- 2 Bundesländer (Salzburg/Oberösterreich) have already an area wide assessment of soil functions online:

[http://www.salzburg.gv.at/sagisonline\\_themeneinstiege](http://www.salzburg.gv.at/sagisonline_themeneinstiege)

<https://www.land-oberoesterreich.gv.at/106895.htm>

## RESEARCH 1

- during the last years a lot of soil research especially concerning the climate change aspect takes and took place e.g.
  - **Austrian Carbon Calculator**  
(<http://www.umweltbundesamt.at/umweltsituation/landnutzung/acc/>)
    - this calculator aims at making the influence from different measures on the soil organic carbon also under climate change conditions visible
    - the project has been carried out in two model regions
  - **FarmClim** (<https://www.klimafonds.gv.at/assets/Uploads/Projektberichte/ACRP-2011/04052015FarmClimBarbara-AmonEBACRP4B175101-KR11AC0K00369.pdf>)
    - this project examined methods for farming for a better climate by improving nitrogen use efficiency and reducing greenhouse gas emissions

## RESEARCH 2

- **ClimGrass** (<http://www.raumberg-gumpenstein.at/cm4/de/aktuelles-lfz/forschung/5440-climgrass-forschungsanlage-in-raumberg-gumpenstein-eroeffnet.html>) ([https://www.youtube.com/watch?v=UC\\_qyeiSe0Q](https://www.youtube.com/watch?v=UC_qyeiSe0Q))
  - a new high tech construction was in 2014 installed in our research institute in Raumberg-Gumpenstein
  - which shall investigate the influence from the climate change on grassland (yield, fodder quality, plant population, nutrients in soil, and water content in the soils) through simulation extreme climate situations (e.g. rising temperature, increasing CO<sub>2</sub>-content of the atmosphere)
  - aim is to develop adequate measures for climate change adaption for grassland

## EDUCATION

Ministry supported:

- The development of „Boden macht Schule“  
(<http://www.umweltbundesamt.at/umweltsituation/boden/schule/seminare/>)
  - common project of several partners
  - children can make different soil experiments
  - aim is to enforce the soil awareness in schools
  - schools can book workshops with soil experts
  
- The development of a school poster about soil functions for the International Year of Soil together with the UNESCO (<http://www.unesco-schulen.at/sites/default/files/files/Plakat%20Boden%202015.pdf>)

## OTHER ACTIVITIES

There are also a lot of other activities in Austria:

- from the Bundesländer
- from the Farmer`s Association
- from the research institutes
- from towns and villages

Like:

- Publications
- Field days
- Diverse events .....

## CONCLUSIONS

Together with all responsible authorities and experts we try:

- to improve soil quality in Austria
- to improve the consciousness for the importance of soil between the farmers, politics, the population, the school children, the spatial planners ....

Of course the efforts have to go on because of:

- high pressures on soil because due to an increasing demand for raw materials and for buildings, roads etc. and also
- impacts of climate change which we are already facing

## CONCLUSIONS

- Besides national activities improving international cooperation is also an important issue in order to:
  - to learn from each other
  - to exchange best practice methods
  - to avoid the duplication of research activities
  
- But
  - responsibility for setting measures should be kept on the national or regional level

Therefore we are still very critical about a possible EU directive!

# THANK YOU!

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