Bio Forschung Austria: Research for organic farming

- Non-profit research institute, supported by City of Vienna, Dept. Climate, Forest & Agriculture
- Dr. Bernhard Kromp, Dr. Eva Erhart and Team
- Projects funded by EU & national sources

General objective:

Research projects to improve and innovate organic farming as a climate-friendly and environmentally sound production method of high-quality food for the population of Vienna

7 Examples of Research and KnowHowTransfer Projects

www.bioforschung.at

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Catch crops for climate change adaptation

- Catch crops improve soil structure, water infiltration and reduce erosion
- Atmospheric nitrogen fixation by legumes
- Improving cultivation methods for catch crops
- Researchers cooperate participative, close-to-practice with organic farmers & machinery ring
- 21 Field trials in 6 sites, 19 field days, visited by > 1,200 farmers & students

https://www.bioforschung.at/projects/minnc-emissionsminderung-durch-begruenungen/

https://www.bioforschung.at/shop/begruenungskompass/

https://www.bioforschung.at/shop/broschuere-begruenungen-im-ackerbau/

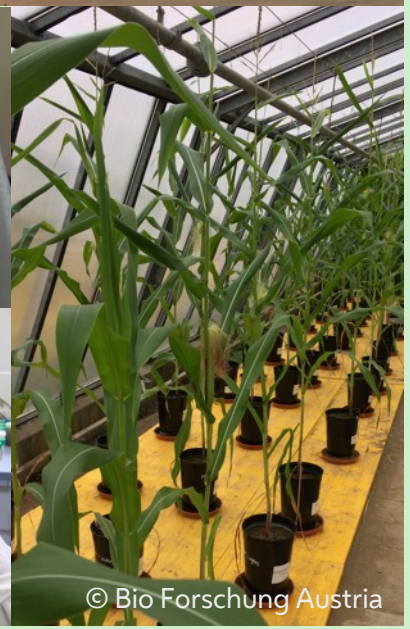
Compost Research

- Long-term collaboration for improving the quality of Vienna's organic waste compost
- Compost for organic farming: increased soil organic matter content, improved soil structure
- Compost as peat substitute for potting media

Activities:

- Integrated compost maturity assessment with Near Infrared Spectroscopy
- Phosphorus recycling from sewage sludge ash
- Humus- and greenhouse gas balances
  show high potential for carbon sequestration

https://www.bioforschung.at/projects/inteko/
https://www.bioforschung.at/projects/biores/
https://www.bioforschung.at/projects/78/



Urban Gardening Boom in Vienna

- Homepage & Info-Hotline
  - www.garteln-in-wien.at (german, english)
  - Report „Garteln in Wien“ (2021) overview, download
  - Information/Networking, e.g. Communal gardens, currently >100
- Education
  - Visitor ’ s center, „Root-arena“
  - Workshops for School-Kids

Ecological management of green spaces for biodiversity and climate change adaptation

Project SYM:BIO

Urban green spaces are a retreat/refugium for many species, whose habitats are dwindling in the agricultural landscape

Green spaces can help to mitigate the effects of increasing temperature and drought in the city

Activities:

Awareness raising among garden owners and allotment gardeners

Seminars and workshops for passing on ecological gardening know-how

Ecologically managed show gardens in Vienna

https://www.bioforschung.at/projects/symbio-at-cz/

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ZERA
Mendelova univerzita v Brně
NATUR im GARTEN
NÖ AGRARBEZIRKSBEHÖRDE
EUROPEAN UNION
Interreg Austria-Czech Republic
European Regional Development Fund

Multifunctional windbreaks

- Reduce wind erosion, decrease evaporation
- Improve microclimate – essential for agricultural production in a changing, increasingly hot and dry climate
- Multifunctional: fruits, nuts, wood and other uses for added benefit
- Hedges enhance biodiversity and link biotopes

Activities:

Monitoring of indicator species
(butterflies, wild bees, ground beetles)

Seminars and workshops for farmers

https://www.bioforschung.at/projects/mehrnutzungshecken/

https://www.bioforschung.at/events/exkursion-mehrnutzungshecken-am-23-11/

Certificate course ‘soil practitioner’

Objective: Practical training of (organic) farmers for sustainable soil management

- 9 course days over one year with different topics, e.g.
  - Soil life
  - Nutrient dynamics
  - Compost & circular economy
  - Tillage & catch crops
  - Presentation technique
- Investigation on own farm, assessed by expert jury
- 213 graduates (since 2013) in Lower Austria

- Participation also in
  - Course Burgenland
  - Certificate Course Viticulture
  - New edition of the soil practitioner manual

Partners: bioforschung austria, Bio AUSTRIA

Ländliches Fortbildungs Institut LFI

MIT UNTERSTÜTZUNG VON BUND, LÄNDERN UND EUROPÄISCHER UNION
Europäischer Landwirtschaftsfonds für die Entwicklung des ländlichen Raums: Hier investiert Europa in die ländlichen Gebiete.
LE 07-13
lebensministerium.at

Biodiversity through anthropogenic uses for nature conservation areas

Project AgriNatur AT-HU

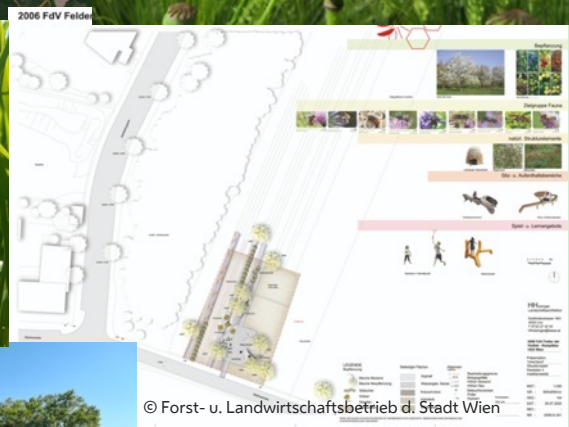
Sustainable promotion of biodiversity in agriculturally used protected areas (NP Donau-Auen/AT and Mosoni Sík/HU)

Implementation of agrobiodiversity monitoring for birds, wild bees, butterflies, ground beetles and field weeds

Development of general and local AgriNatur strategies for biodiversity-related management in protected areas

Conception of visitor areas and workshops to raise awareness on agrobiodiversity

https://www.bioforschung.at/projects/agrinatur-at-hu-biodiversitaet-durch-anthropogene-nutzung-fuer-naturschutzgebiete/



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