



# The complex world of soils condensed into practical tools for farmers

Julia Miloczki<sup>1</sup>, Günther Aust<sup>2</sup>, Michael Englisch<sup>2</sup>, Rainer Reiter<sup>2</sup>, Andreas Bohner<sup>3</sup>, Sigrid Schwarz<sup>4</sup>, David Keßler<sup>2</sup>, Andreas Baumgarten<sup>1</sup>

<sup>1</sup>Austrian Agency for Health and Food Safety (AGES), <sup>2</sup>Austrian Research Centre for Forests (BFW), <sup>3</sup>Agricultural Research and Education Centre Raumberg-Gumpenstein (AREC), <sup>4</sup> sigrid.schwarz@schwarz.eco

## Identifying and understanding agricultural soils

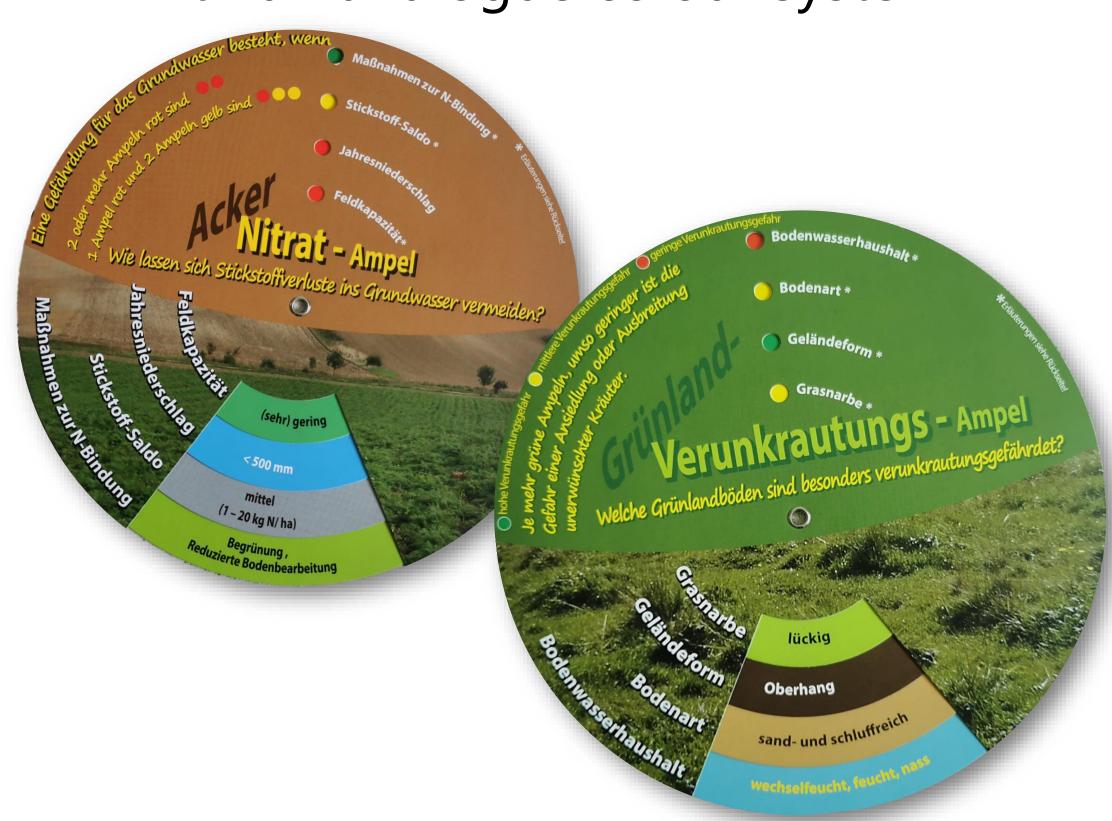
Fertile soils can ensure the supply of food, feed, fiber and fuel as well as other key soil functions. Since soil types differ in many ways, differentiated assessment and management is required. The newly developed **soil field guides for arable land and grassland** enable a simple identification of soil types by means of six questions. These tools also explain the soil types' **characteristics** and contain **basics of soil science**, e.g. determination of soil texture, soil horizons, indicator plants. In addition, the soil field guides provide specific **recommendations** for agricultural management adapted to the site's capacities, such as management intensity, suitable crops and tillage regime.



Soil field guides: available in pocket size and book size

## Soil discs

Assessment and prevention of relevant soil threats with an analogue colour system



#### Arable land:

- Erosion
- Soil compaction
- Nitrate leaching

#### Grassland:

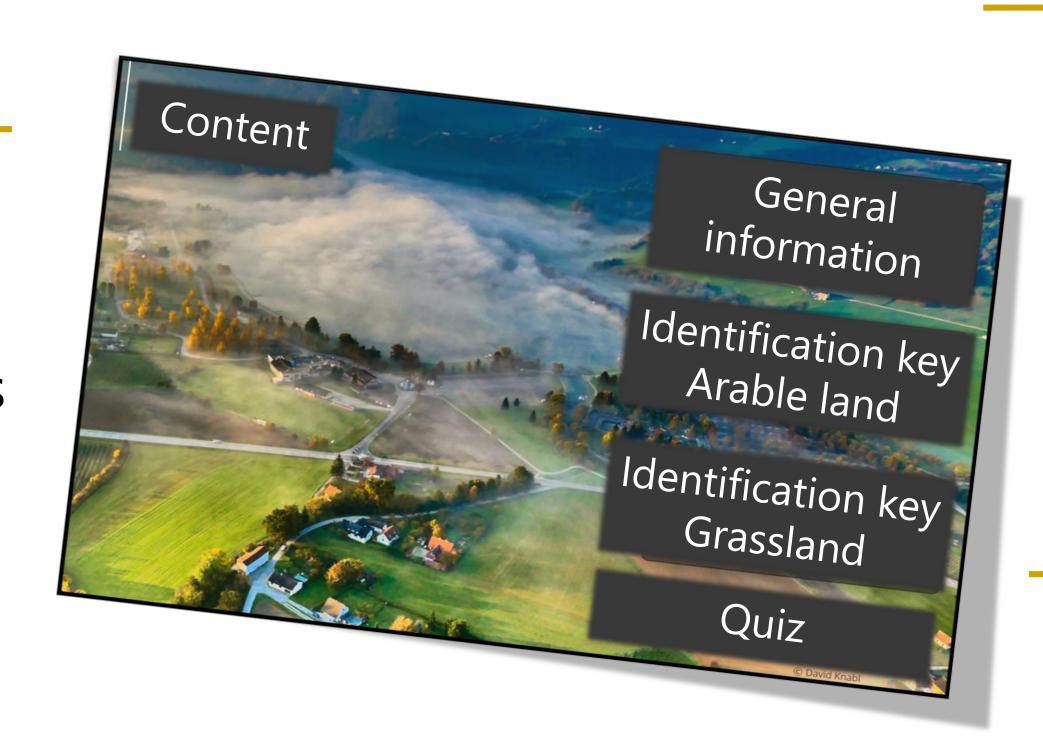
- Soil compaction
- Weed infestation
- Yield potential

#### **Contents**

- Catena
- Soil identification key
- Soil types: pictures & characteristics
- Determination of soil texture
- Characterisation of soil horizons
- Background information (pH, humus content, field capacity)
- Field methods
- Indicator plants
- Glossary

#### Areas of use

- Agricultural practice (farmers)
- Courses & in-service training
- Lessons in (agricultural) schools
- Universities
- Advisory service
- Stakeholders



www.ages.at/umwelt/boden/wissenund-bildung

#### **Educational materials**

- Fact sheets
- Worksheets
- Hands-on exercises
- Workshop designs

### Learning app

- Web-based access to all contents
- Interactive identification keys
- Quiz to test knowledge