WORKSHOP 2

Valuing underutilised crops and wild plants for agroecological transitions

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Menu

- Introductory presentations - 20 min
- Small group discussion - 50 min
- Synthesising recommendations and wrap-up - 15 min
The world has over 50,000 edible plants.

Just three of them, rice, maize and wheat, provide 60 percent of the world's food energy intake.

The big four – sugar cane, maize, rice, wheat – are staples for about 5 billion people
World potatoes varieties > 5,000
Commercial varieties: 4

Loss of apple varieties from 1903 to 1983: 86%

Loss of corn varieties from 1903 to 1983: 91%

UNDERUTILISED CROPS

Underutilised crops are neglected but valuable species, landrace, variety or cultivar that has limited current use in a given geographic, social, and economic context and that holds great promise to diversify agricultural systems, create resilient agroecosystems, diversify diets, and create economically viable dynamic value chains (for feed, food, and non-food uses).
Agroecology Group of The University of Gastronomic Sciences of Pollenzo

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We study strategies for enhancing the resilience and synergy of agroecosystems by cultivating local and underutilized crop varieties through the application of agroecological principles.

Giovanni and Carlo in a field of local landraces of common wheat in Piedmont, Italy

The role of local varieties in contributing to:

- stable productions with low pest and disease losses
- climate change resilience (water)
- innovative products
GERMONTE 4
Itineraries of biodiversity
DAL SEME AL PIATTO
Local varieties of Vegetables
RADIANT
Local varieties of wheat
RADIANT
Lentils and beans
To evaluate the role of ecosystem services delivered by UCs in order to identify resilience and benefits of Underutilised Crops
Indicators of practices

**OASIS**

**THE ORIGINAL AGROECOLOGICAL SURVEY INDICATOR SYSTEM**

Methodology and guidelines for the assessor.

<table>
<thead>
<tr>
<th>SCALE</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>deep ploughing (more than 30 cm in depth) or rotavating several times per year</td>
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<tr>
<td>2</td>
<td>rotavating or deep ploughing once a year</td>
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<td>3</td>
<td>ploughing maximum 30 cm in depth and/or using power harrow once a year</td>
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<td>4</td>
<td>reduced tillage up to 5 cm (e.g., superficial discharring, wide-cutter or rotary hoe), strip tillage, ridge tillage</td>
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<td>5</td>
<td>no-till</td>
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Connecting the indicators with ESs
Leafy greens
Biofontinhas - Azores islands

Acorns
Freixo do Meio - Portugal

Beans and lentils
Feneos - Greece

Local landraces of Wheat
Papavero Rosso - Piedmont, Italy

Bere Barley
Orkney - Scotland UK

Alfalfa, beans and clover for feed
CRPA - Reggio Emilia, Italy

Local varieties of vegetables
Hungary
WILD PLANTS
Wild plant commercialisation

Diversity of products and value chains

Value chains are:

Local
- Four markets in Poland: 60 wild plant and mushroom species commercialised (Kasper-Pakosz et al., 2016)
- Gastronomy

National
- Austria: bear’s leek (Allium ursinum L.) (Schunko and Vogl, 2018)

International
- Finland: >15,000 commercial wild plant gatherers deliver 1,100 t mushrooms to one single company (Cai et al., 2011)
- Albania: up to 100,000 commercial wild plant gatherers (Imami et al., 2015)
Wild plant commercialisation

Significant economic relevance

Wild plant products
(Lanz und Marchetti, 2020)
- 395,000 t of wild gathered foods (berries, herbs, mushrooms) commercialised from forests
- Market value: 926 million €

Increasing market volumes
(Wolfslehner et al., 2019)
- Berries (Tahvanainen et al., 2019)
- Medicinal- and aromatic plants (Vasisht et al., 2016)
Wild plant commercialisation

Contributions to people

Material contributions:
- Diverse uses
- Food diversity
- Agrobiodiversity
- Crop wild relatives
- Income in remote rural areas

Non-material contributions:
- Nature relatedness
- Place connectedness
- Tradition
- Identity
- ...
Wild plant commercialisation

Factors influencing commercialisation

Culture
- Traditional and local knowledge
- Attitudes

Ecosystem
- Plant availability
- Climate
- Land use and management
- Gathering practices

Market
- Competition
- Value chain types
- Demand
- Certification and labelling

Policies
- Access to resources
- Food safety regulations
- Support measures

Wild plant commercialisation

Socio-economic
- Income
- Labour

(Schunke et al., 2019)
Wild plant gathering

Conceptualisation

(Schunko, 2022)
small group discussion :)