



# THE DEVELOPMENT OF PLANT PROTEINS IN THE EUROPEAN UNION

OPPORTUNITIES AND CHALLENGES

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## Panel “Agronomic Practices and Environmental Benefits”

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# Highlights of the workshop on “Agronomic Practices and Environmental Benefits”

## Agronomic practices

- Economic benefits of legumes must include impact on crop rotation
- Farm advisory needed to teach farmers to grow protein crops
- Practices of organic farming are useful for conventional farming
- Better harvesting equipment required
- BUT: protein plants still not comparable to maize and cereals as regards profits
- BUT: Yield variability greater than in cereals

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# Highlights of the workshop on “Agronomic Practices and Environmental Benefits”

Environmental benefits of nitrogen fixing crops:

- Less synthetic fertilisers needed, less greenhouse gasses
- Nitrogen-residue also for the following crop
  - Key-question: design of crop-rotation
    - winter crop after protein-crops
- Breaking pest cycles in cereals, less pesticides needed
- Cycles mainly based on maize and cereals can strongly be improved through protein crops
- BUT: they have also their own pests





# Highlights of the workshop on “Agronomic Practices and Environmental Benefits”

## Benefits for soil

- Soil structure, humification
- Carbon storage
- No-tillage or reduced tillage for following crop

## Biodiversity

- Different flowering season, ideal for bees
- Peas, beans and lupine are good for pollinators
- Shelter for wildlife

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# Highlights of the workshop on “Agronomic Practices and Environmental Benefits”

Soya bean:

- Central, southern and eastern parts of Europe
- Mid-term: Potential up to 2–3 million hectares

Pulses:

- Need more varieties
- Important in organic farming

Fodder legumes:

- Ideal for non-GM dairy
- As multi-annual crop, benefits in weed management

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# Opportunities

Main opportunities derived from workshop:

- Growing demand for non-GM plant proteins
- The Future CAP strong emphasis on environment and climate
- Benefits for environment of protein crops are evident
- Low-input of pesticides and nutrients
- Legumes – fodder legumes, pulses, soybeans – are key to develop the sector of organic farming
- Strategies and most suitable crops differ per region, no one-fits all approach





# Way forward

- Improve productivity of protein crops at any stage by:  
*better harvest-technology and inoculation*
- There is no environmental sustainability without economic sustainability
- Emphasising the wide range of environmental benefits:  
*low-input, saving GHG, biodiversity, pollinators...*
- Increase farmers' knowledge (agri and environment) on growing protein crops:  
*set up a network to share best practice*
- BUT: advisory-services in MS organised differently (public, private, science):  
*every MS should develop its proper strategy*

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