

# **Conservation Agriculture in Organic Farming Motivations of European Farmers and Diversity of Practices**

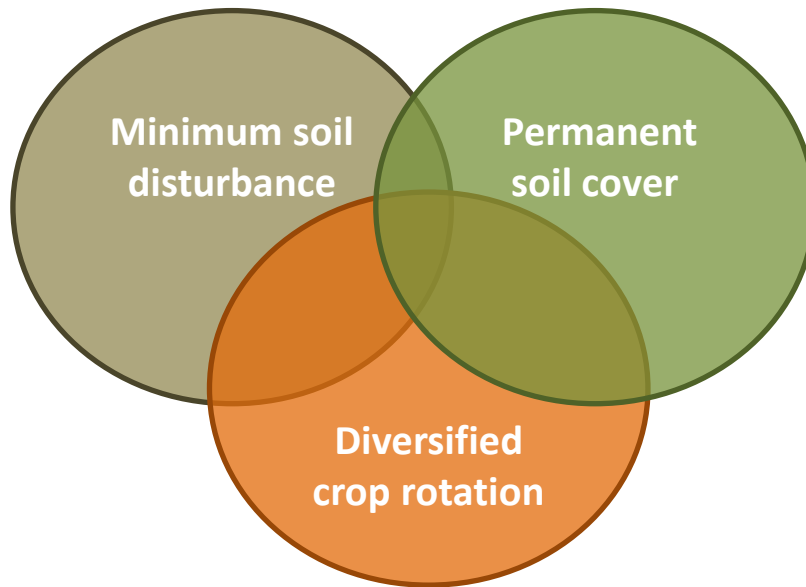


# Outline of the presentation

- Context
- Material and methods
- Results
  - Farmers’ motivations and problems
  - Diversity of practices in Europe
- Conclusion

# Context of TILMAN-Org Project

- Conservation agriculture and organic farming



- Constraints of application
- TILMAN-ORG project

# Context of TILMAN Survey

- Survey : Current farmers' practices in Europe?



Green manure (GM)

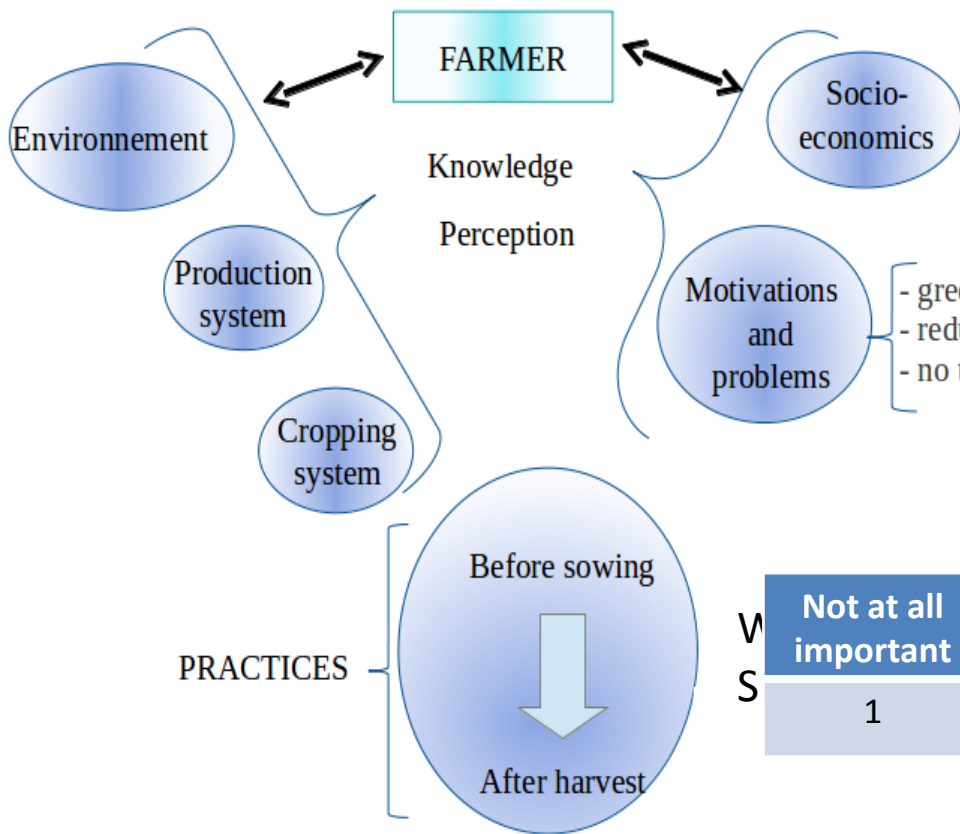


Reduced tillage (RT)  
No tillage (NT)

- Objectives of the survey
  - Motivations and problems
  - Diversity of practices
  - Farmers' profiles

# Material and methods

## Farmers' questionnaires

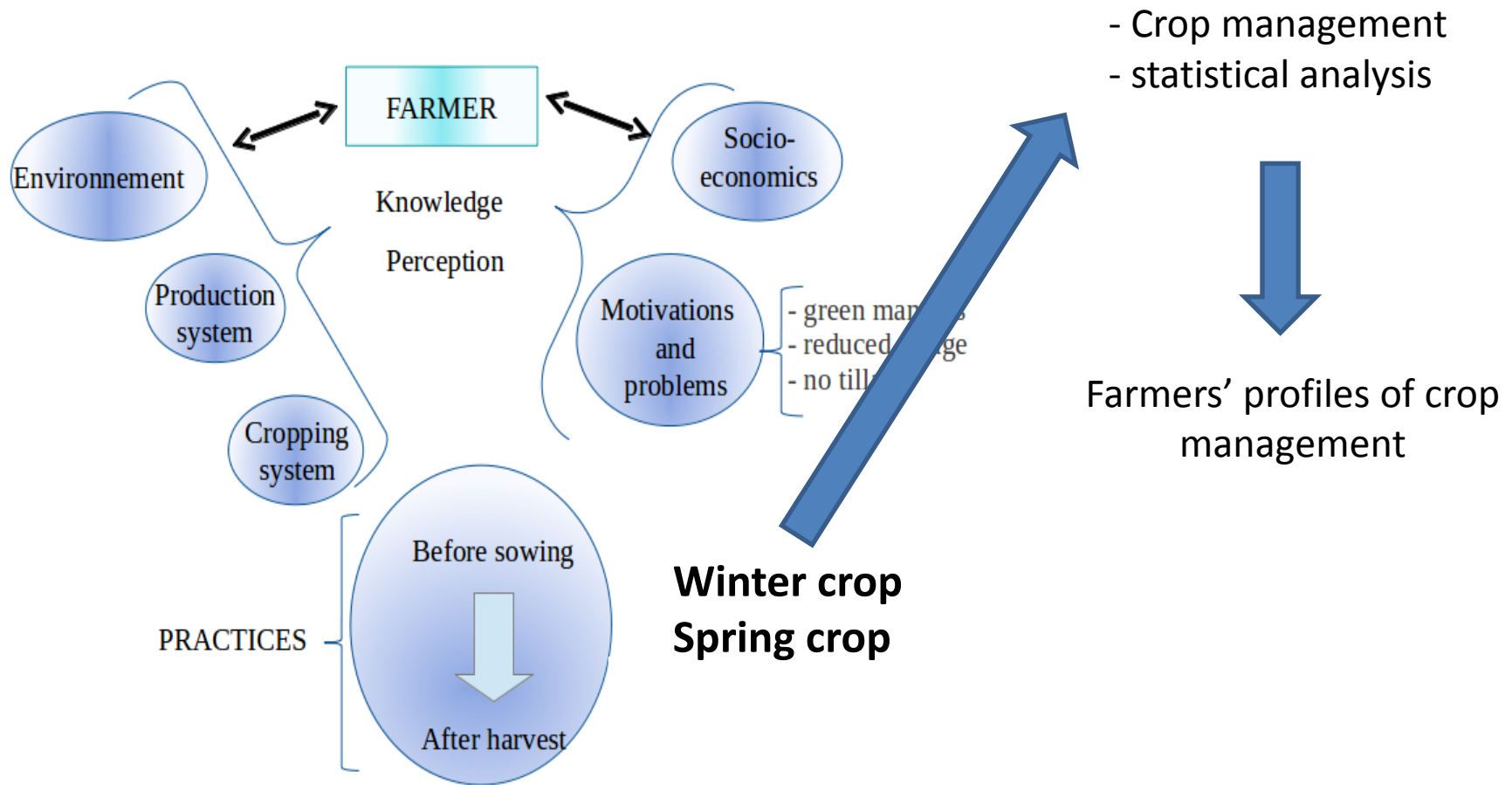


- List of 12 possible motivations and problems for each technique
- Lickert scale ranging from 1 to 5

**Example :** *motivation for applying GM*  
 « improving general biodiversity »

	Not at all important	Of minor importance	Moderately Important	Very important	Extremely important
V S	1	2	3	4	5

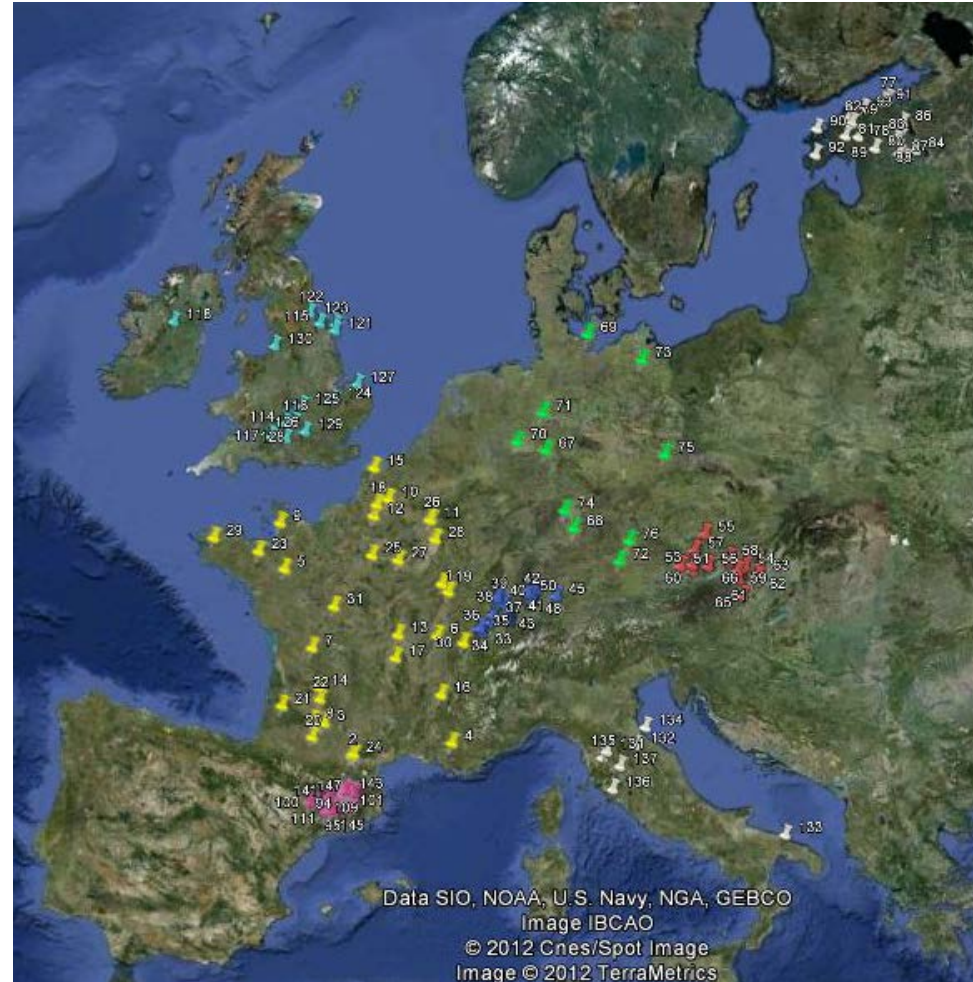
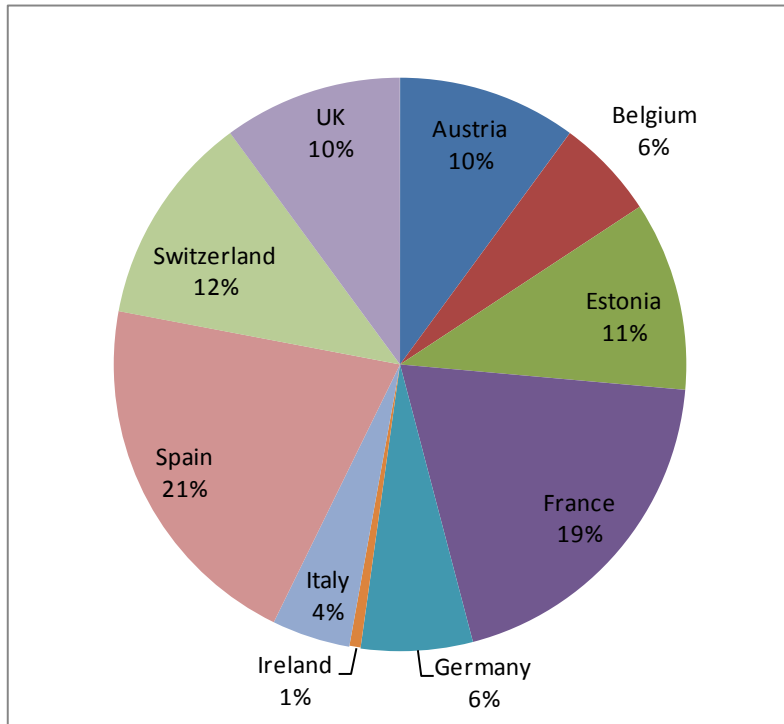
# Material and methods Farmers' questionnaires



# Results

## Interviewed farmers

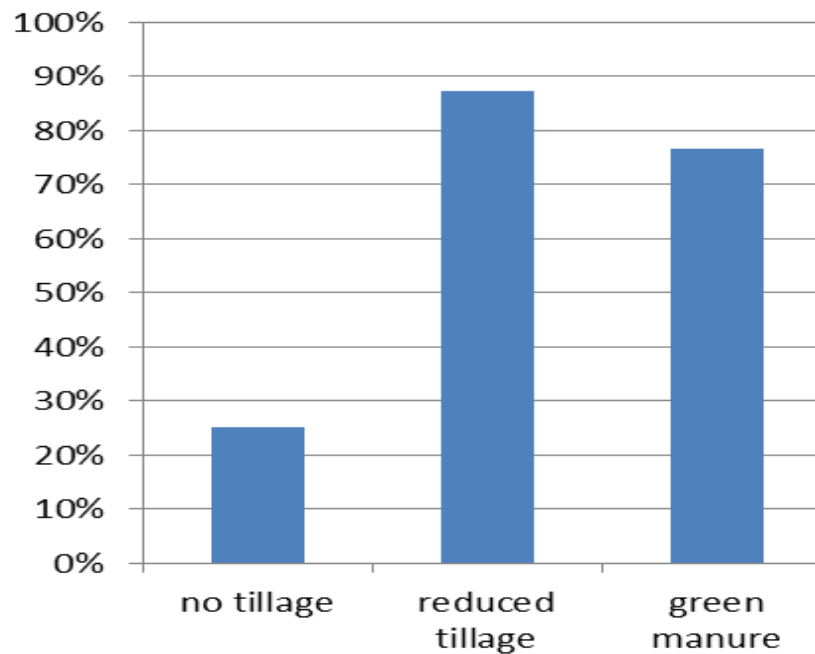
- 10 countries
- 159 farmers



# Results

## Conservation practices

% of the total interviewed farmers





# Results

## Main motivations and problems

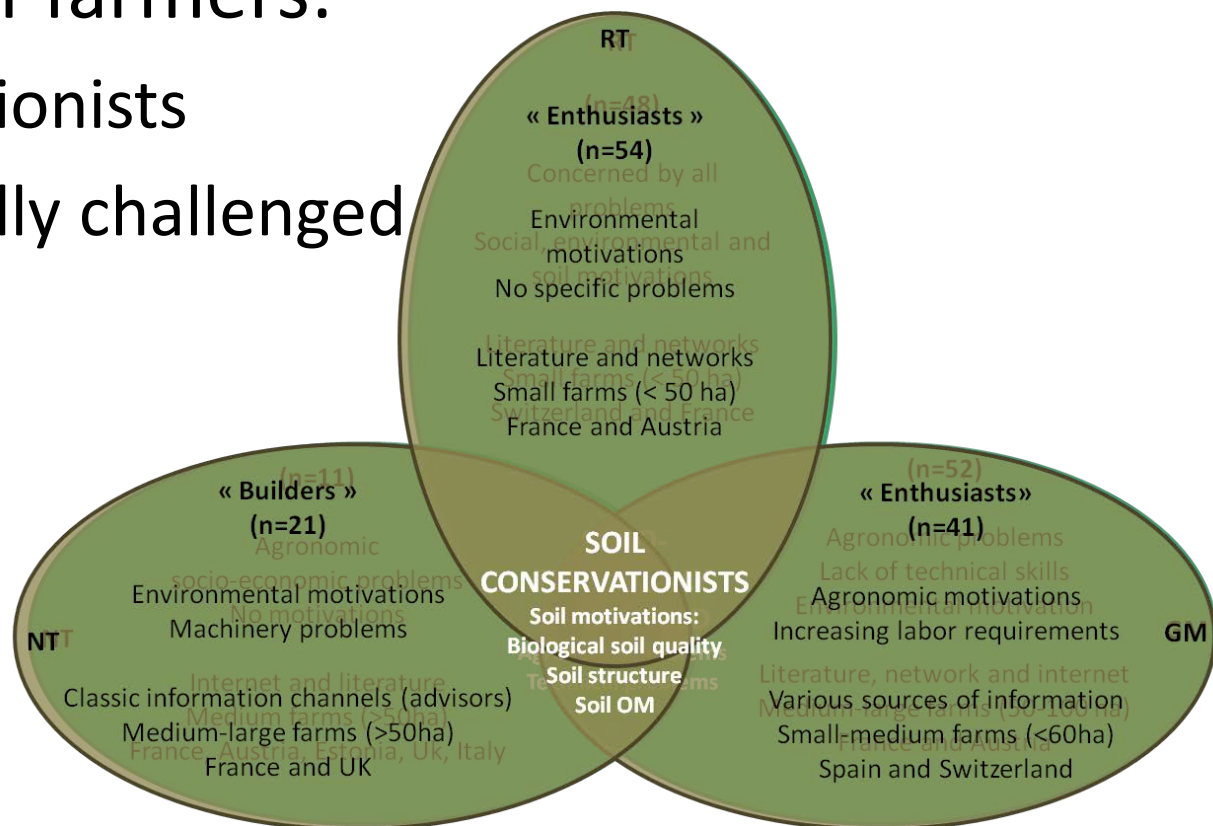
- **No Tillage, Reduced Tillage** and **Green Manure**

	Socio-economics	Soil conservation	Environment	Agronomic conditions & crop management
MOTIVATIONS		<ul style="list-style-type: none"> <li>• Improving soil structure</li> <li>• Improving biological soil quality</li> <li>• Limiting soil erosion</li> <li>• Increasing soil OM</li> </ul>	<ul style="list-style-type: none"> <li>• Limiting N leaching</li> <li>• Improving biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• Limiting weeds, pest and diseases</li> </ul>
PROBLEMS	<ul style="list-style-type: none"> <li>• Increasing labor requirements</li> <li>• Yield stability</li> </ul>		<ul style="list-style-type: none"> <li>• Machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Weed infestation and management</li> <li>• Destroying preceding crop and/or green manure</li> </ul>

# Results

## Main motivations and problems

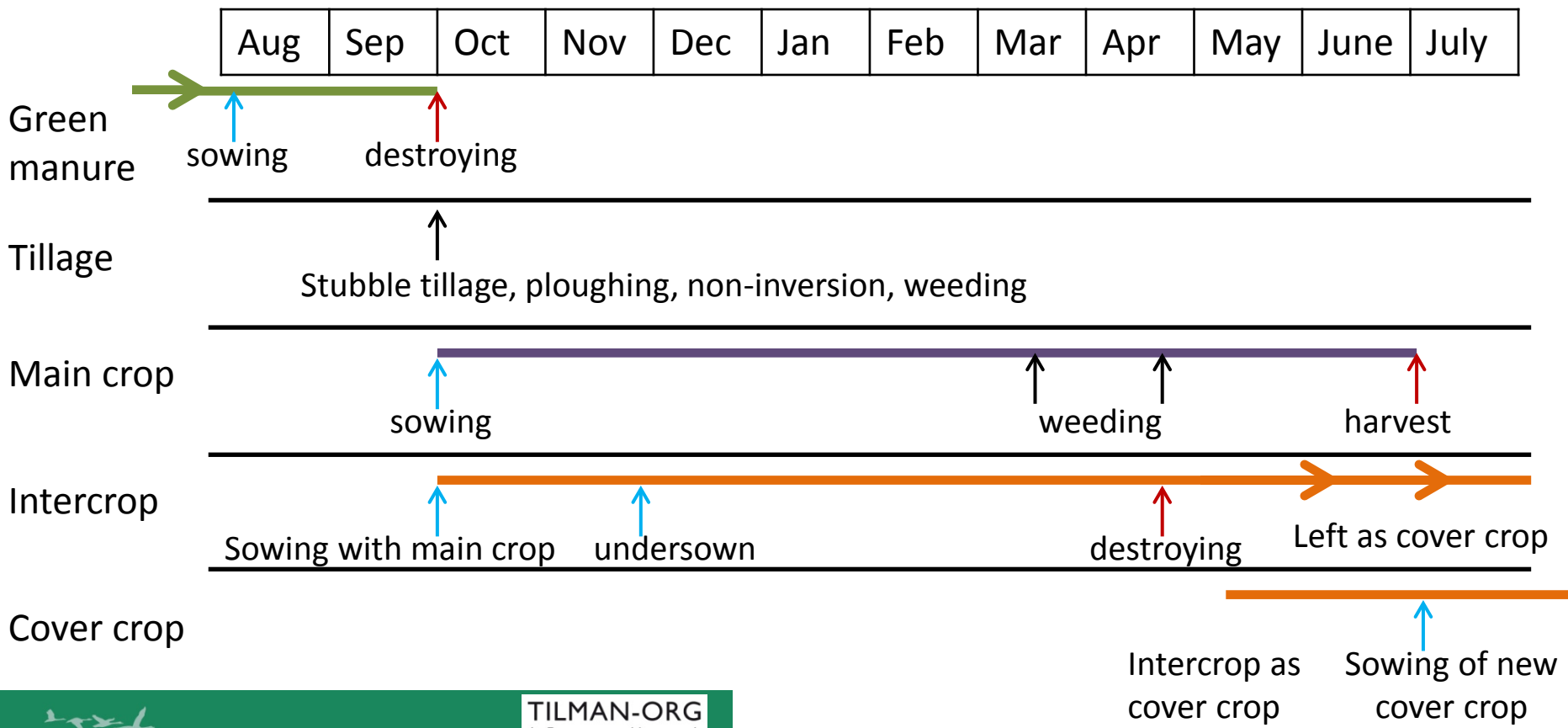
- 2 main types of farmers:
  - Soil conservationists
  - Agro-technically challenged



# Results

## Winter crops: management options

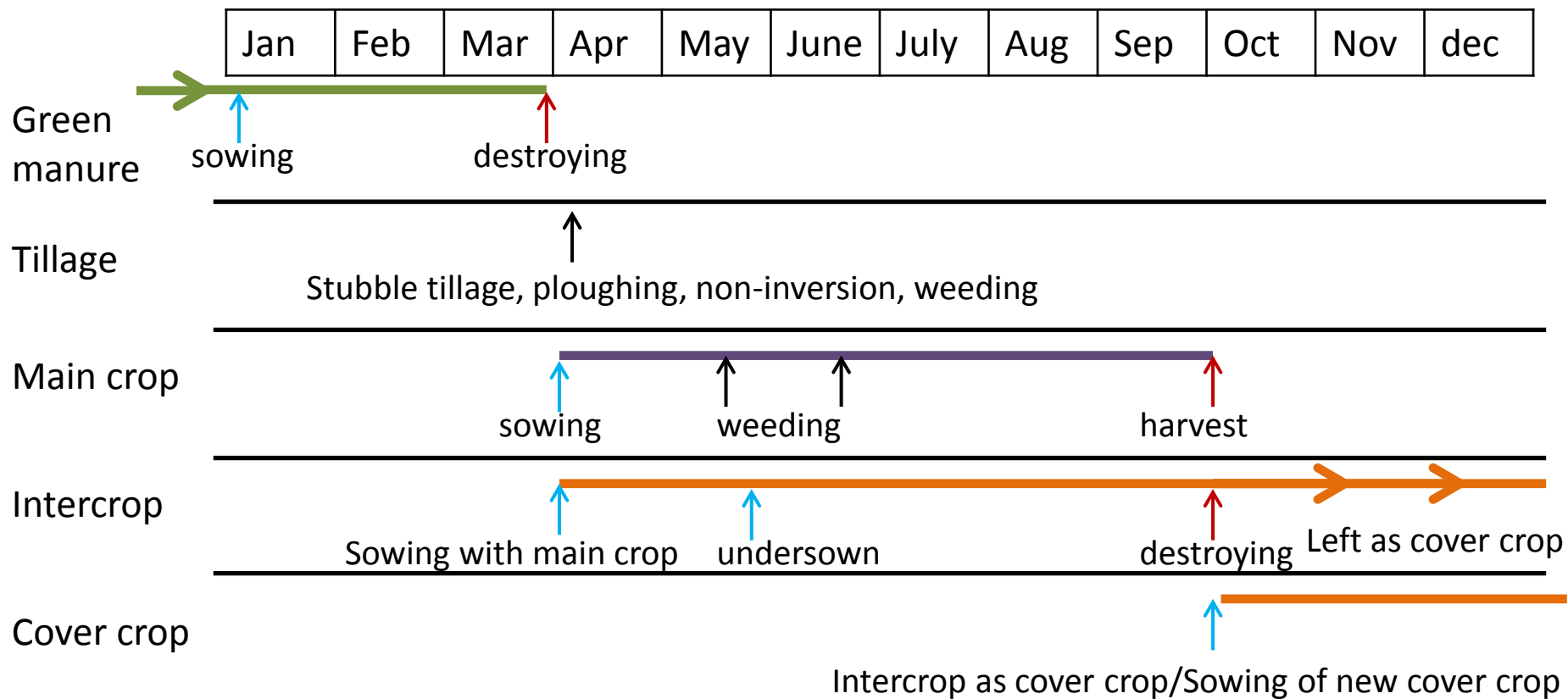
117 farmers



# Results

## Spring crops: management options

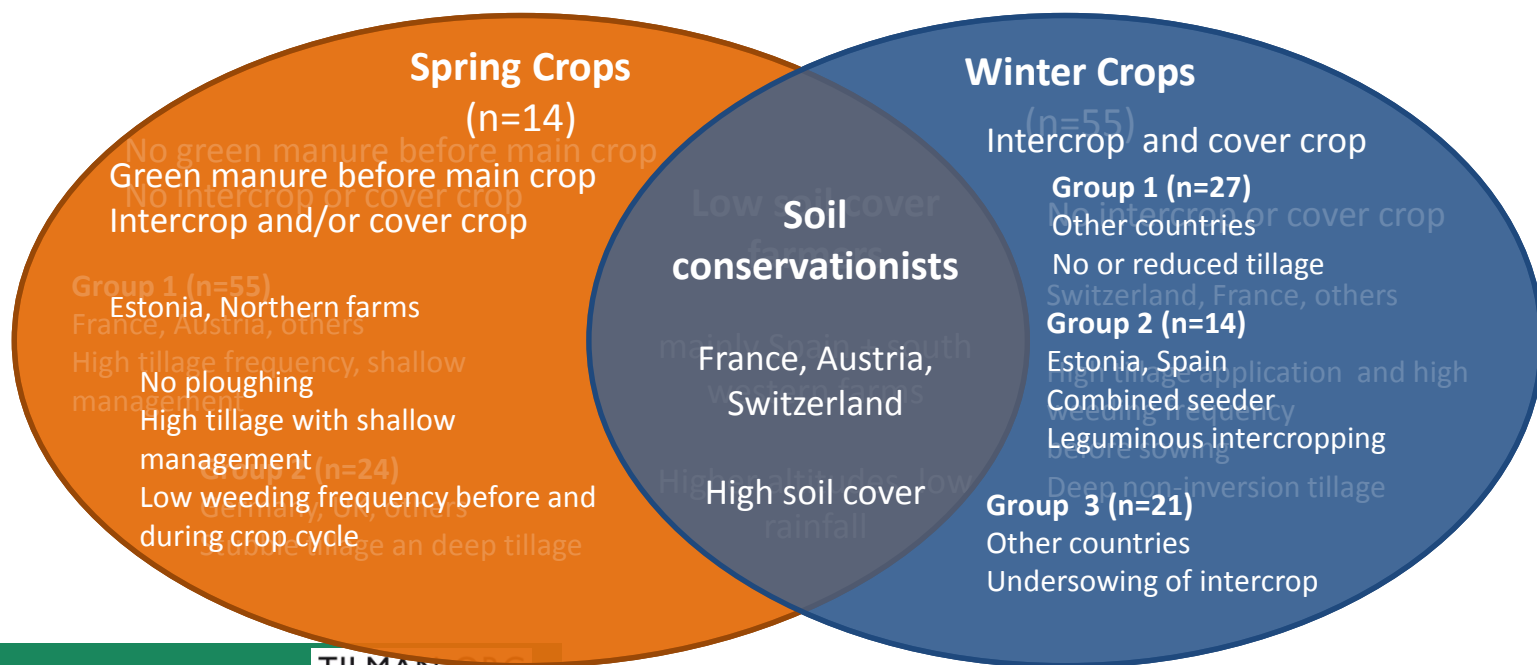
125 farmers



# Results

## Farmers' profiles for crop management

- 2 main types of farmers:
  - Low soil cover farmers
  - Soil conservationists



## Conclusion and perspectives

- First overview of European practices
- Results are dependant on farm location
- Problems => challenges for further research
- Diversity of practices is inspiring for designing new cropping systems that combine CA and OF