

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

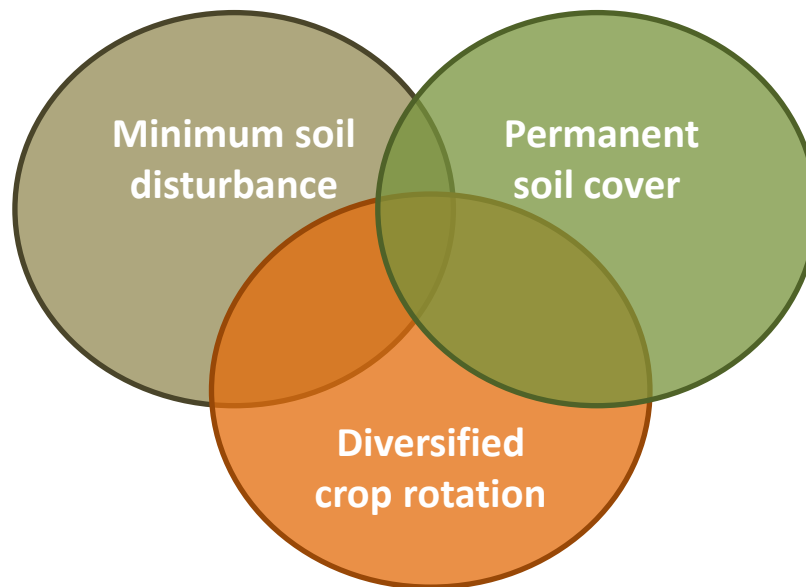


Outline of the presentation

- 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)

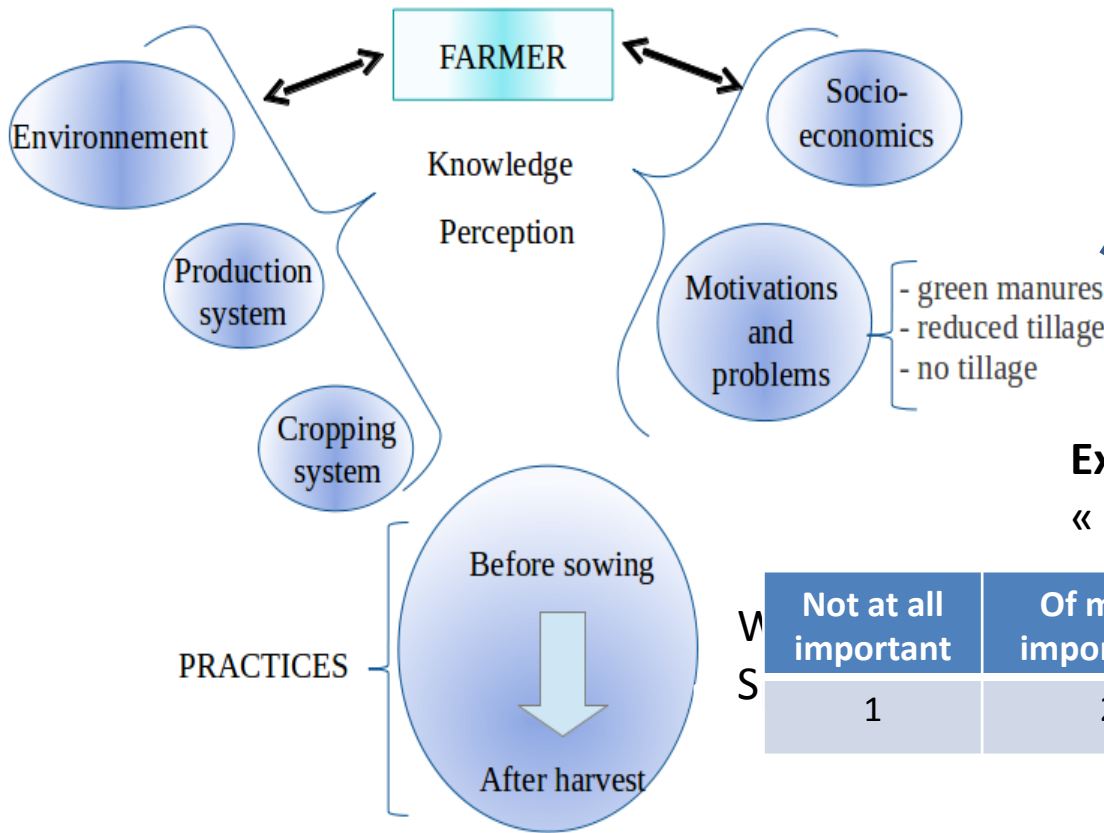


Reduced tillage (RT)
No tillage (NT)

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

Material and methods

Farmers' questionnaires



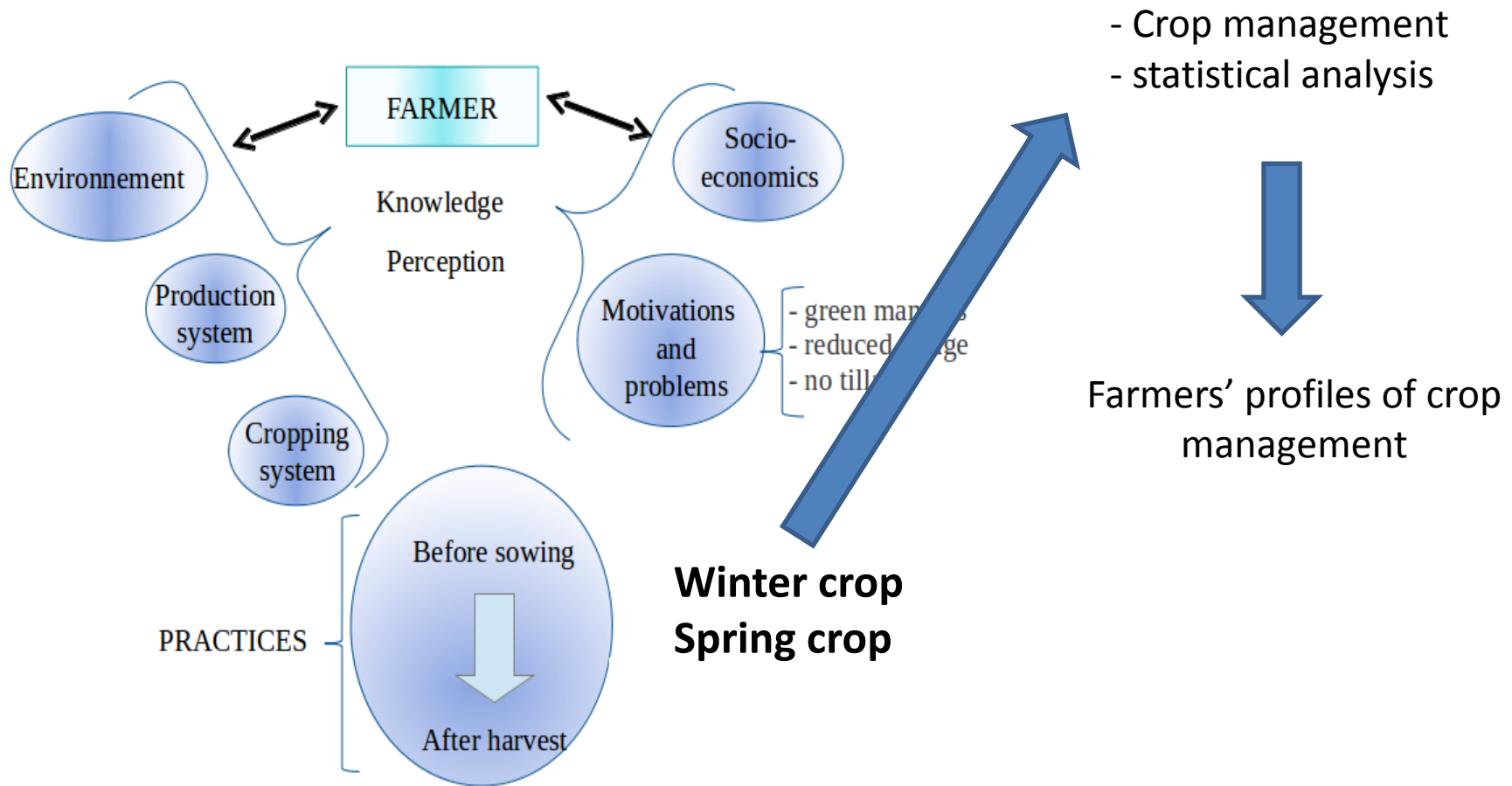
- List of 12 possible motivations and problems for each technique
- Lickert scale ranging from 1 to 5

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

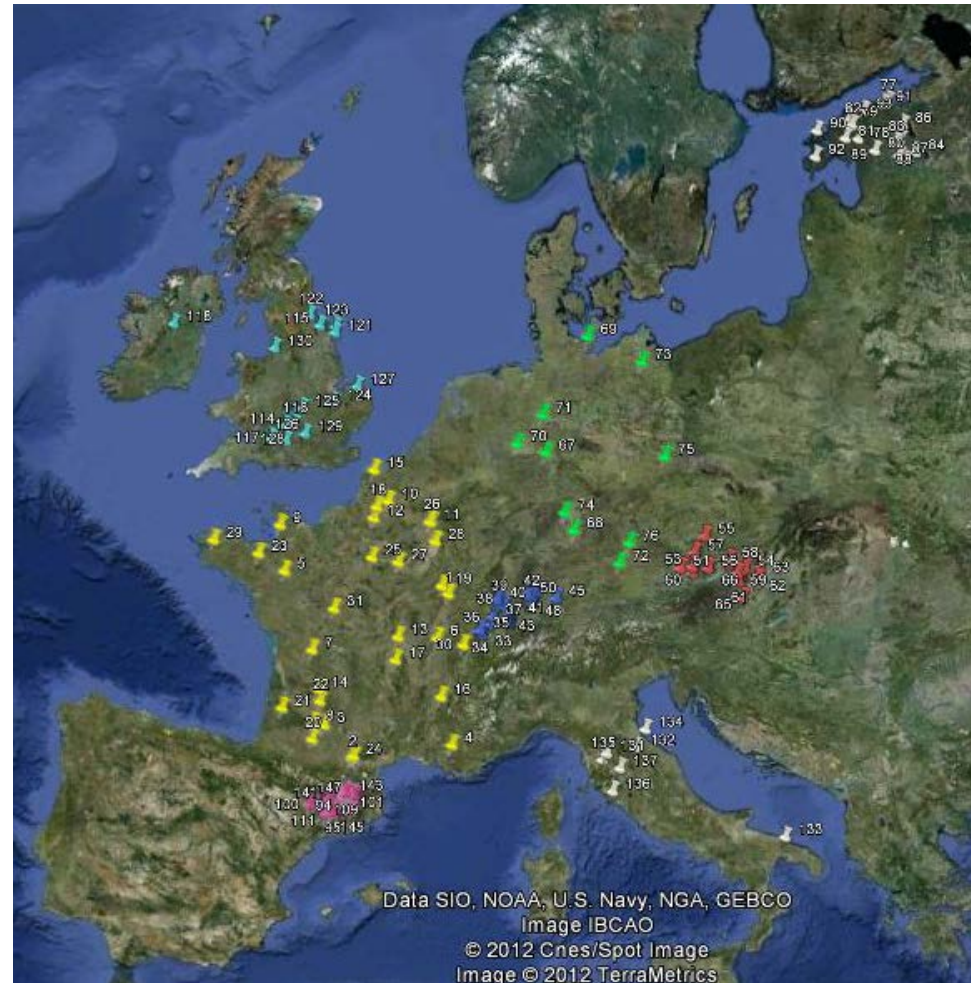
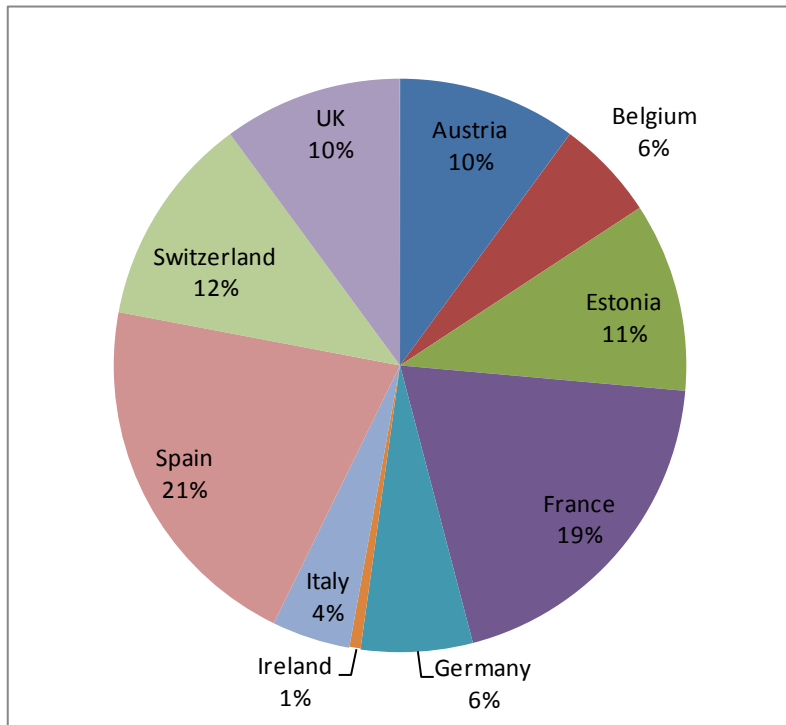
Farmers' questionnaires



Results

Interviewed farmers

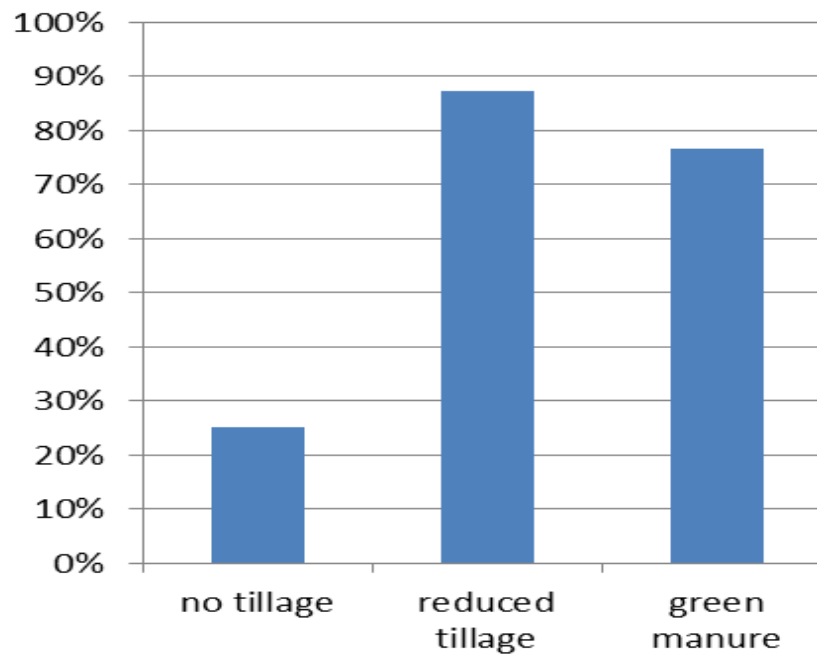
- 10 countries
- 159 farmers



Results

Conservation practices

**% of the total
interviewed
farmers**



Results

Main motivations and problems

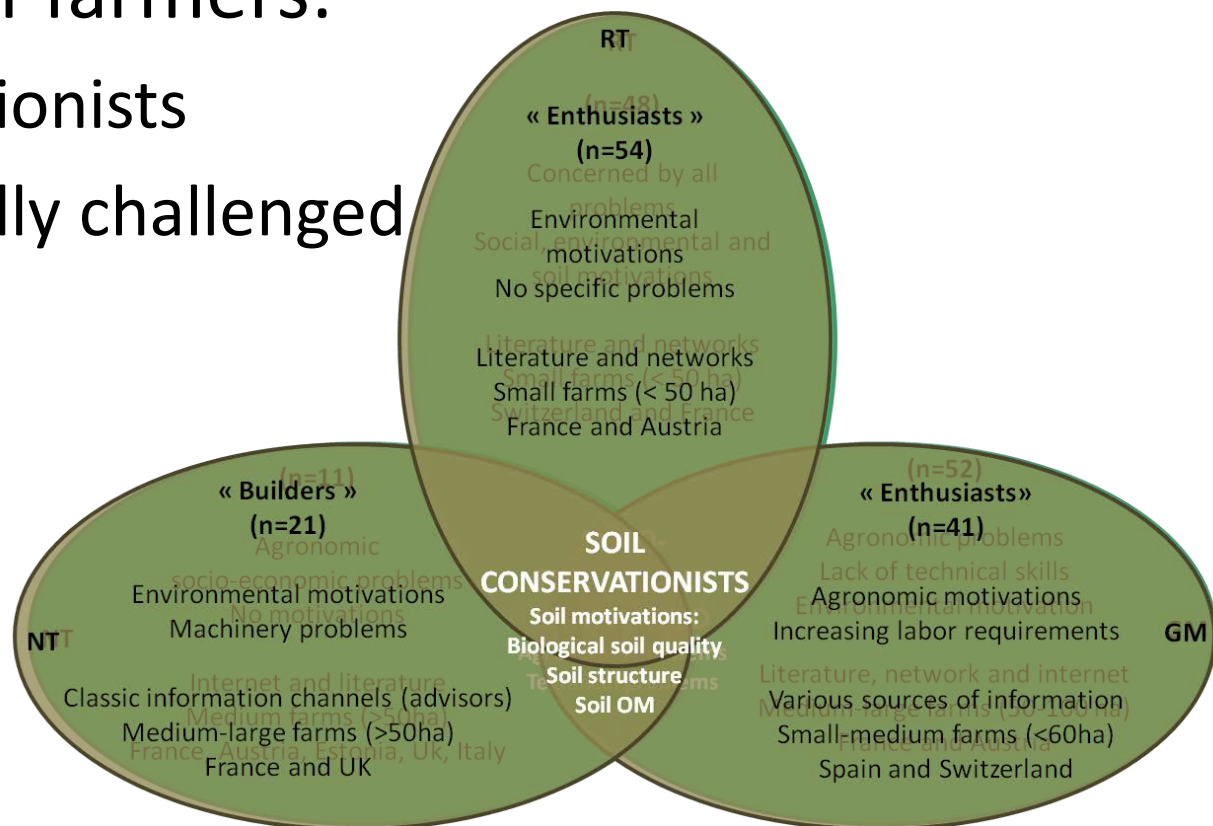
- **No Tillage, Reduced Tillage** and **Green Manure**

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

Results

Main motivations and problems

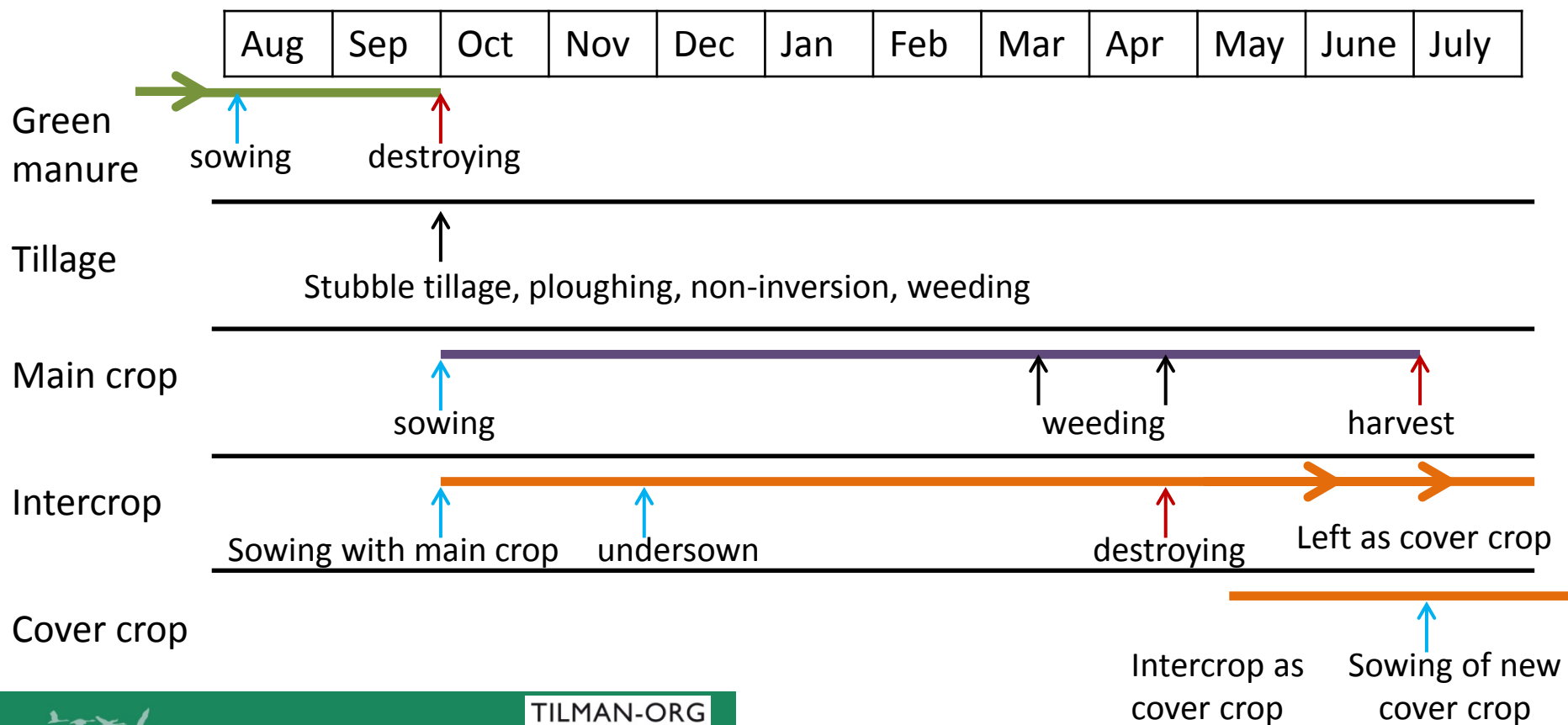
- 2 main types of farmers:
 - Soil conservationists
 - Agro-technically challenged



Results

Winter crops: management options

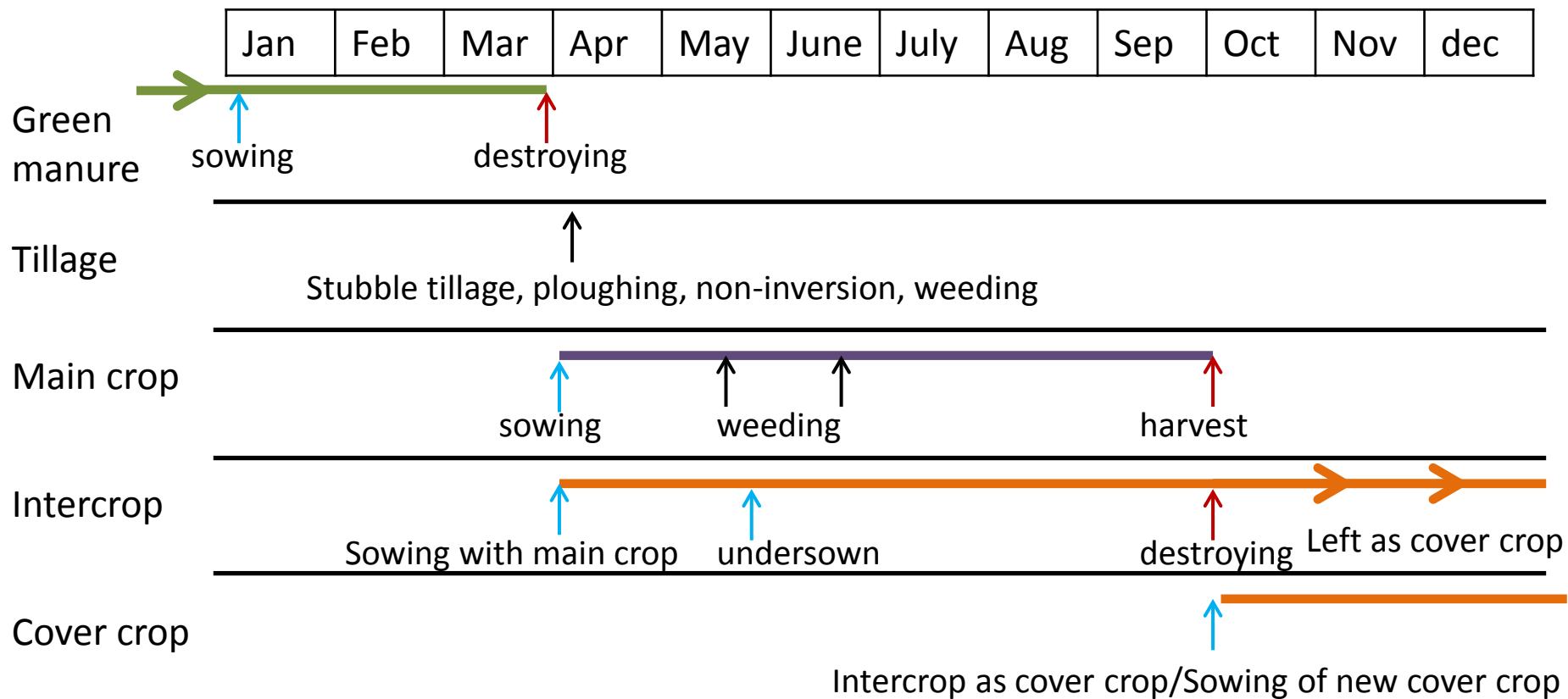
117 farmers



Results

Spring crops: management options

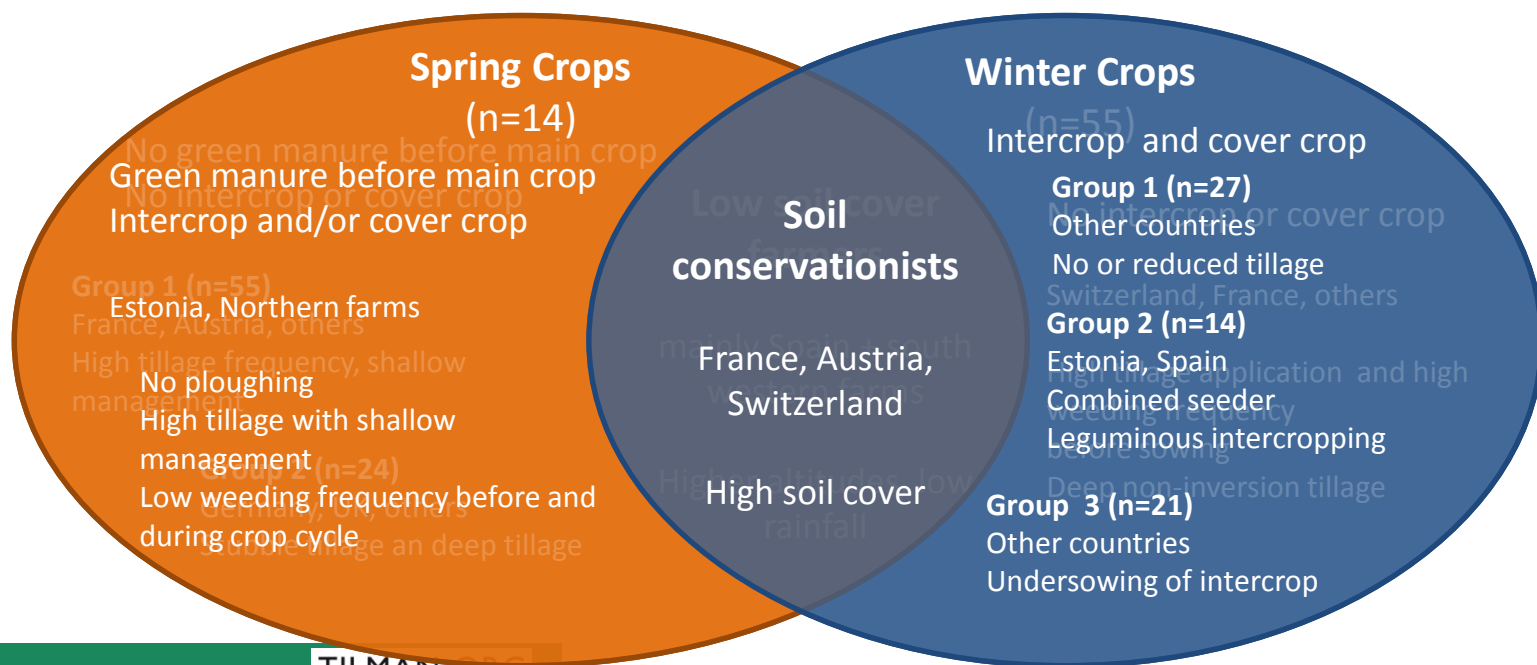
125 farmers



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