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A systematized list and classification of soil management practices

Carolina Olivera
Cruz Ferro

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Steps

1. Defining “**soil management**”
2. Defining “**practices**”
3. Identifying soil management practices (scoping review)
4. Building a classification system
5. Describing soil management practices
6. Reviewing for universality and consistency

Definitions and descriptions avoid the use of value qualifiers (e.g., improved)

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Soil management

The combination of **all actions** carried out as part of a land management process that are **intentionally** conducted or applied on a given area **to affect** a specific soil aspect and can be leveraged for increasing productivity and soil health

Within any land use

Includes actions on plant and water

Different from: farming systems, farming approaches, cropping systems

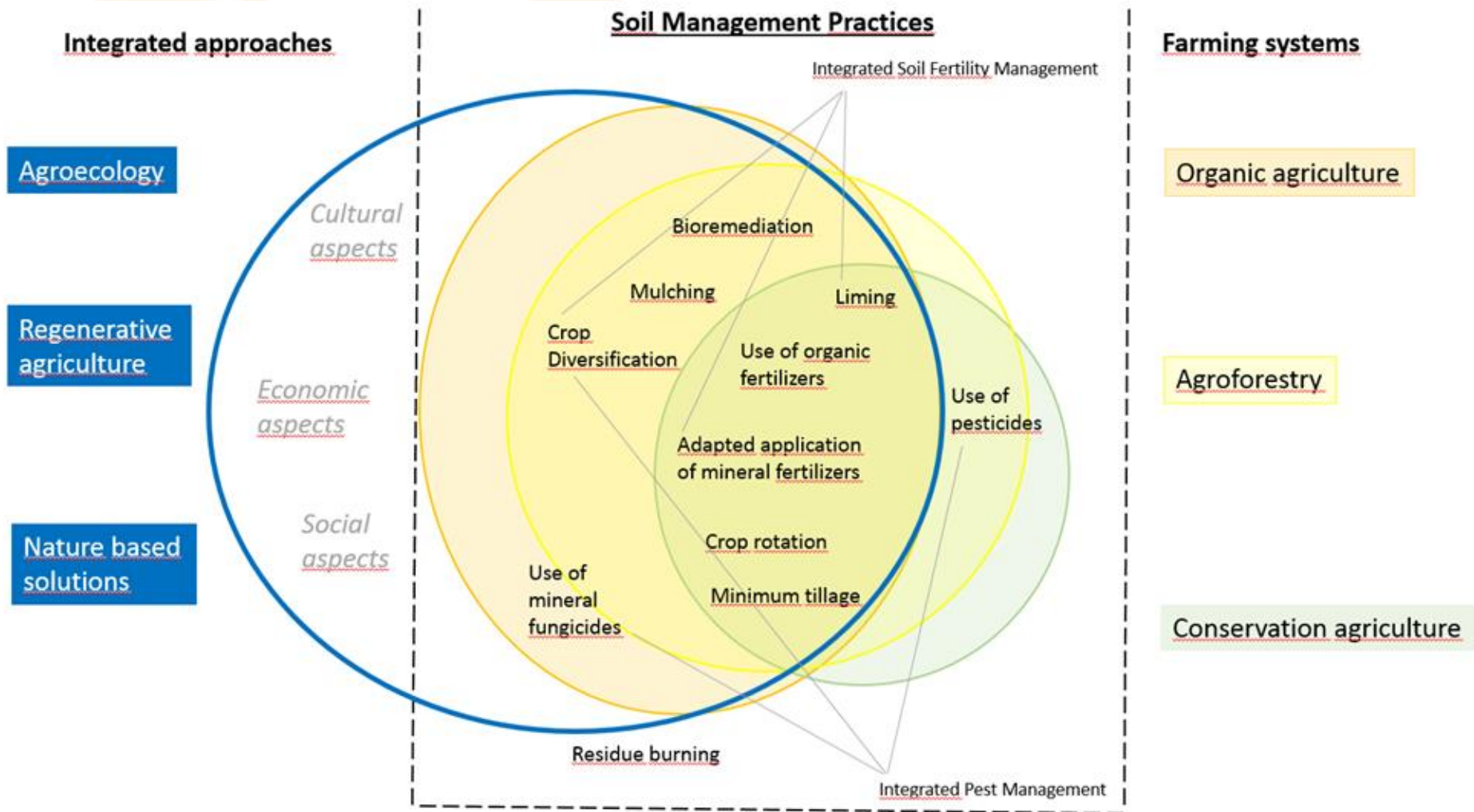
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Sustainable soil management

Actions carried out as **part of soil management** that **maintain or enhance the ecosystem services** provided by the soil without impairing the functions enabling those services, or being detrimental to the wider environment



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Soil Management Practices

The individual actions that are carried out as part of soil management and have an effect on soil properties, which is measurable.

The different methods and materials used for implementing each practice are not considered to be definitory but descriptive of the practice.



Classification: categories

- Soil preparation: actions to develop a substrate that will favour biological activity and plant growth. Inclusive of protection and restoration activities.
- Soil nutrient handling: actions to manipulate the soil nutrient budget
- Plant selection: actions involving the choices regarding the species or varieties grown
- Plant protection: actions to avoid or reduce the incidence of pests, diseases and weeds
- Water supply: actions to make water available

Classification: types

- Based on the specific aspect being manipulated... large diversity, many criteria possible



For discussion

- The definition of soil management: scope
- Including actions on plants and water that affect soils?
- Categories: other approaches possible (e.g. based on physical, chemical or biological modifications)
- Types: based on agricultural operations, properties managed, effects, objectives???





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Thank you

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