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Terres Vivantes, a project to get the spade back (2019-2026)

At a time when agricultural soils are under threat, the Living Soils project, supported by the Federal Office for Agriculture (LAgr 77 a&b), is interested in putting the soil back at the centre of farmers' concerns. To achieve this, three actors are working together: farmers, scientists (soil scientists, biologists and sociologists) and agricultural extension workers.

The aim is for farmers to use simple evaluations to assess their soils and make a diagnosis. Depending on the diagnosis, a response adapted to the situation will have to be implemented in order to solve a possible problem. Scientists and agricultural advisors are available to train, guide and validate the choices made by the farmers.

The project is divided into two parts, one devoted to soil-friendly farming practices and the other to soil quality monitoring. Inspired by the concepts of conservation agriculture, the Living Lands project promotes good practices that:

- encourage the longest possible vegetation cover and the greatest possible specific diversity
- encourage the longest possible plant cover and the greatest possible specific diversity over the crop year,
- bring organic amendments to the soil, the quality and timing of which allow for the formation of
- bring organic amendments to the soil, the quality and timing of which allow for the formation of humus,
- limit the mechanical work of the soil both in depth and in the mixing of the layers. The use of tools powered by the tractor's PTO to prepare the seedbed is also being evaluated.

Supported by a team of scientists who are experts in their field, farmers put their hands in the soil to assess its quality.

Following the initial assessment carried out between 2019 and 2020 on 185 plots, the first scientific results show that:

- the soils lack organic matter, which makes them vulnerable to stress,
- there is no compaction in the region's soils, but the structure is slightly degraded with the presence of closed clods (without internal porosity),
- Out of forty species of earthworms known in Switzerland, nineteen were found,
- More than 60 species of carabid beetles were found on the monitoring plots