PRACTICE ABSTRACT N°11

Intercropping clover and wheat for regenerative farming

Problem

Intercropping clover and wheat can result in competition depending on the competitiveness of the crops and their sowing time. Dominant root structure of mature clover may outcompete wheat.

Solution

Intercropping clover and wheat requires careful **timing and balance** in intercropping systems. The method of establishing wheat in standing clover is critical.

Applicability box

Theme

Seeds and breeding - Intercropping wheat and clover

Keywords

Seed testing; Plant breeding; Wheat, clover, timing, nutrition benefits

Context

Denmark

Benefits

High protein wheat in combination with clover can improve yield through complementation. In addition, soil health preservation, nutrient efficiency, and climate resilience are positive benefits of the system.

Practical recommendations

- **Simultaneous establishment:** Sow clover and wheat together to ensure balanced competition and optimal nutrient sharing.
- **Avoid mature clover stands:** Do not attempt to introduce wheat into already established clover fields, if a commercial grain yield is desired.
- **Early sowing strategies:** Early establishment remains advantageous but must be coupled with synchronised crop development.
- **Monitor crop competition:** Regular field assessments should be carried out in early spring to detect early signs of crop competition.
- **Further trials:** Future experiments should test different sowing densities and clover varieties to optimise yield potential and interspecies interaction.

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Figure 1: Wheat in clover early sprouting in mature clover
Photo: Susanne Hovmand, Knuthenlund.

Figure 2: Wheat impacted negatively by clover and stopped

Further information

Weblinks

- https://www.remix-intercrops.eu/
- Check the Organic Farm Knowledge Platform for more practical recommendations.

About this practice abstract

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IntercropVALUES aims to exploit the benefits of intercropping to design and manage productive, diversified, resilient, profitable, environmentally friendly cropping systems acceptable to farmers and actors in the agri-food chain. As a multi-disciplinary and multi-actor project, it brings together scientists and local actors representing the food value chain. It includes 27 participants from 15 countries (3 continents) from a wide diversity of organizations and stakeholders. The project will run for four years and started in November 2022.

Project website: https://intercropvalues.eu/

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