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the way to a green transition

Intercropping field peas with cereals: Impact on insect pests, weeds and diseases



Main results and practical implementation

In large trials conducted in the Czech Republic (2023–2024), adding field peas to wheat or barley helped improve crop health. The intercrops suppressed cereal aphid populations more effectively than monocrops. This was due to the increased natural pest control by beneficial insects such as parasitic wasps and predators like hoverflies.

Intercropping also reduced the damage caused by pests like cereal weevils, gout flies, frit flies, and wheat bulb flies. This effect likely occurred because cereal-pea intercrops were less attractive to pest insects for laying eggs, and because of higher predation of pest eggs by beneficial insects.

Additionally, intercrops slowed the spread of diseases like net blotch, leaf spot, and rusts. However, there was no significant difference in weed suppression between intercrops and monocrops.



Benefits and impact

Intercropping with field peas led to fewer pesticide applications during the growing season, thanks to the natural support of beneficial organisms. Thus, intercropping can help farmers adapt to the reduced availability of synthetic pesticides, which are increasingly banned.



Challenges (and solutions)

The key challenge is finding the best intercrop combinations to enhance resilience against pests and diseases. Tailored intercropping systems are essential for improving crop protection.

Get in touch for more support!

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