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Intercropping in Egypt:
Challenges and opportunities across the Nile River Valley and the New Valley

Main results and practical implementation

In Egypt, 20 on-farm living labs tested legume-cereal intercropping in the Nile River Valley and New Valley. Legumes such as faba beans, beans, and peas were grown with cereals such as wheat and barley. We found that local farming conditions are central for determining the best crop combination for successful intercropping. In general, intercropping is a promising farming practise for improving sustainability in Egyptian agriculture.

Benefits and impact

In the Nile River Valley, strip intercropping methods were used in 70% of the cases. There, intercropping faba beans with wheat increased total yields by 25% compared to monocropping. The land equivalent ratio (LER) of 1.2 indicated enhanced efficiency in resource utilization.

Conversely, in the harsher, arid conditions of the New Valley, alternate row intercropping was the preferred practice. Here, faba beans and barley improved water use efficiency by 20% and reduced soil salinity by 10% – key advantages for farming in arid environments.

Our results showed strategic adaptation of intercropping to local conditions. Although less common in Egypt, organic systems improved soil health and decreased reliance on chemical inputs.

Challenges (and solutions)

Intercropping in Egypt's diverse agroecosystems is highly adaptable and beneficial. However, its success depends on carefully choosing the right crop combinations and management practices for each region. Our findings highlight the need for continued research and farmer education to improve intercropping methods, boosting food security and agricultural sustainability in Egypt.

Get in touch for more support!

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