Agroecology: is it key for the emergence of productive and sustainable plantain-based cropping systems?

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Agroecological approaches to promote innovative banana production systems
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Traditional plantain-based cropping systems in Africa

5-10 T/ha
Example: Plantain after slash and burn, South Cameroon

- Traditional medicine
- Firewood
- Weed control
- Low pest and disease pressure
- Specific density for each crop
- Risk management (weather in particular)
- Family needs

A striking consistency for agrosystem organization...

...very little latitude for innovation !!
Specialized plantain-based cropping systems with high inputs

25 to 40 T/ha
≤ 2 crop cycles
Studying agrosystem diversity

- Competition?
- Facilitation?
- Food web?
- Yield gap?
- Natural predators?
Innovations for ecological intensification

Fallow / Rotation crop

Vitroplants

Early desuckering

Fertilization

Early leave pruning

Boiling plantlets

And others...

Stem trap

Pheromon trap

Service plants
Thanks for your attention