



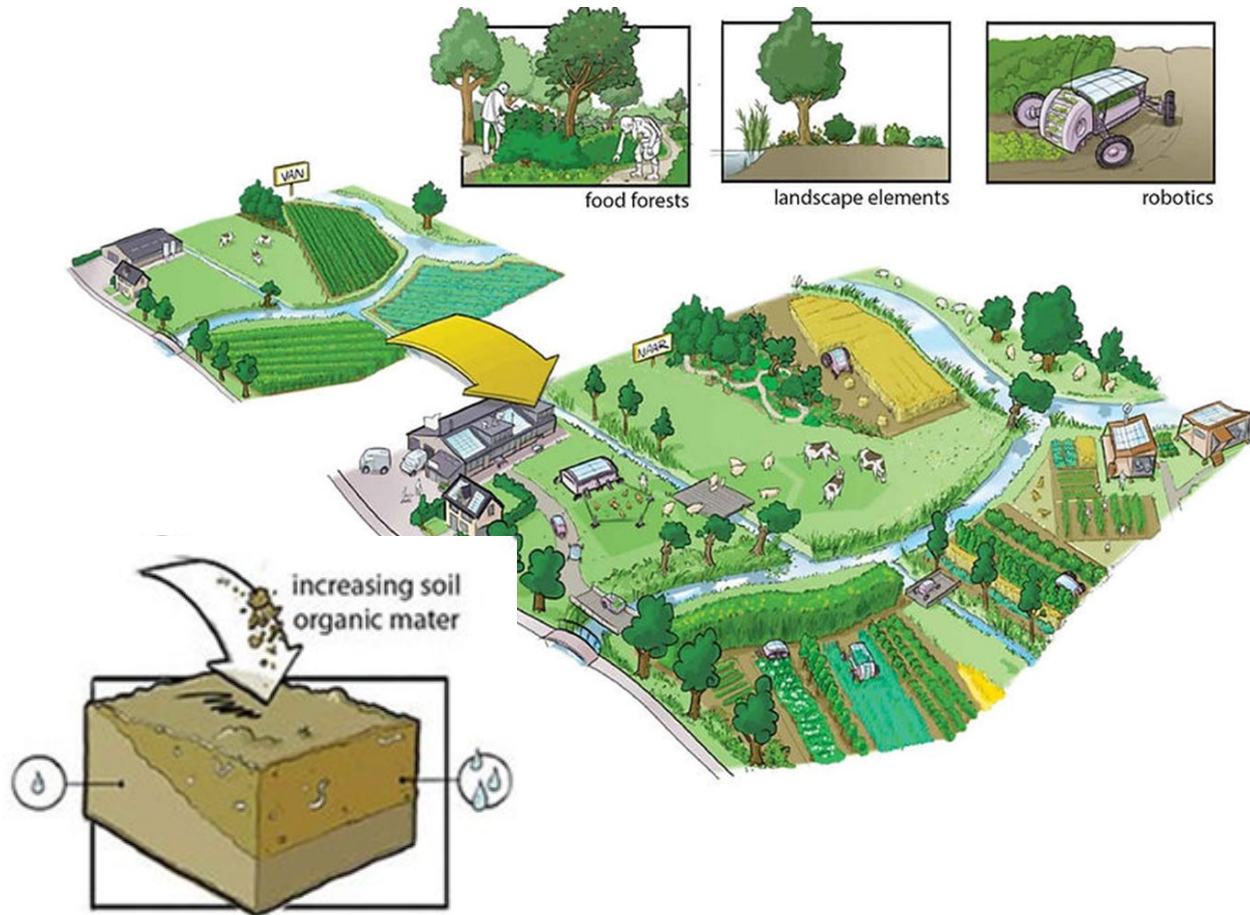
Good practice: Bokashi

Prof. dr. Emiel Elferink

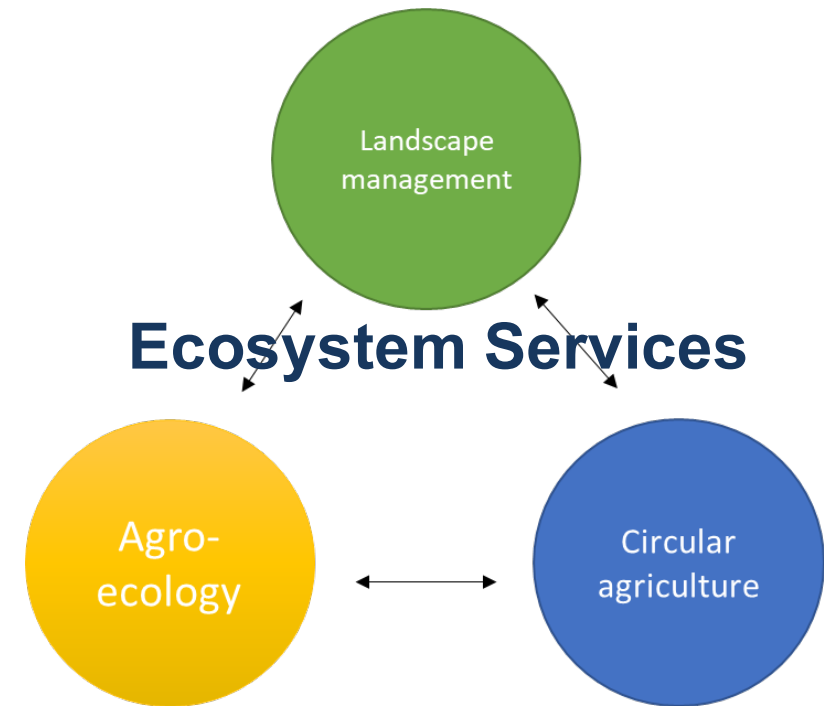
Applied research professor Sustainable Soil Management

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Agricultural development



- **Regenerative Agriculture**
- **Nature Inclusive**
- **Circular Farming**



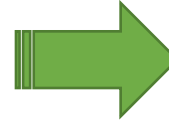
Bokashi

Fermentation

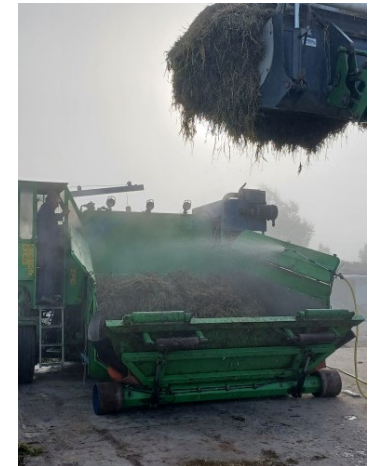


- Japanese: well fermented material (Dr. Higa, 1960's)
- Green materials
- Anaerobic process accomplished by effective microorganisms
- Two stage process
 - Fermentation (Anaerobic)
 - Decomposition (Aerobic) in field

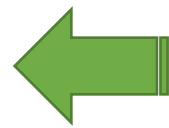
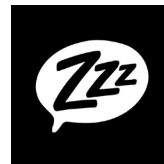
Bokashi production process



Clay, shells and
microbiology



Bokashi



8 – 10
weeks



Compost vs Bokashi

Compost:

- Aerobic
- Conversion
- C/N = 30:1
- 'Woody materials'
- No additives
- Usually not covered
- Turn/ stirred in between
- Stable 'end product'
- Allowed by Dutch law



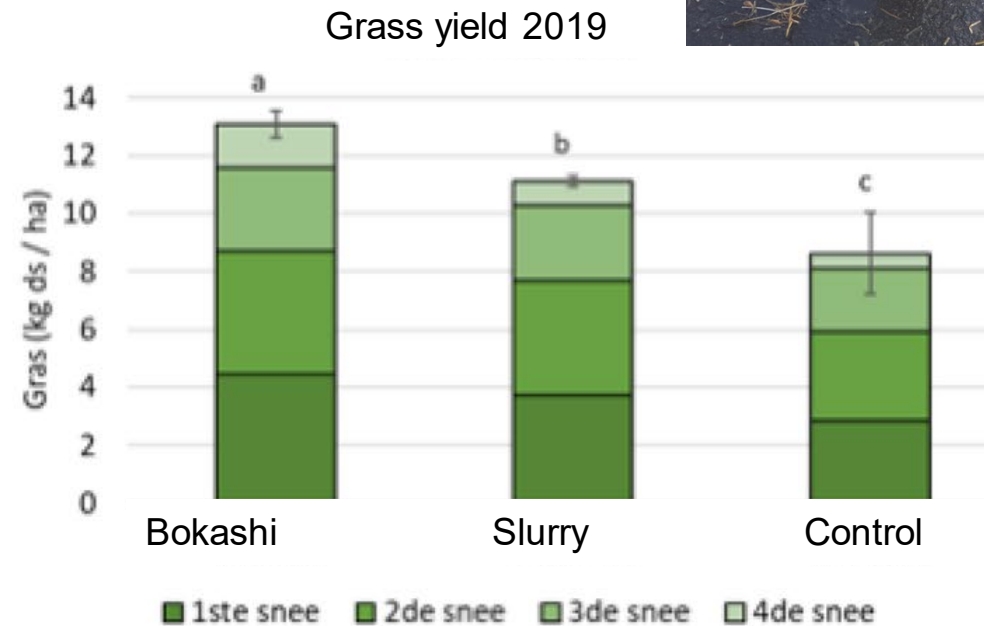
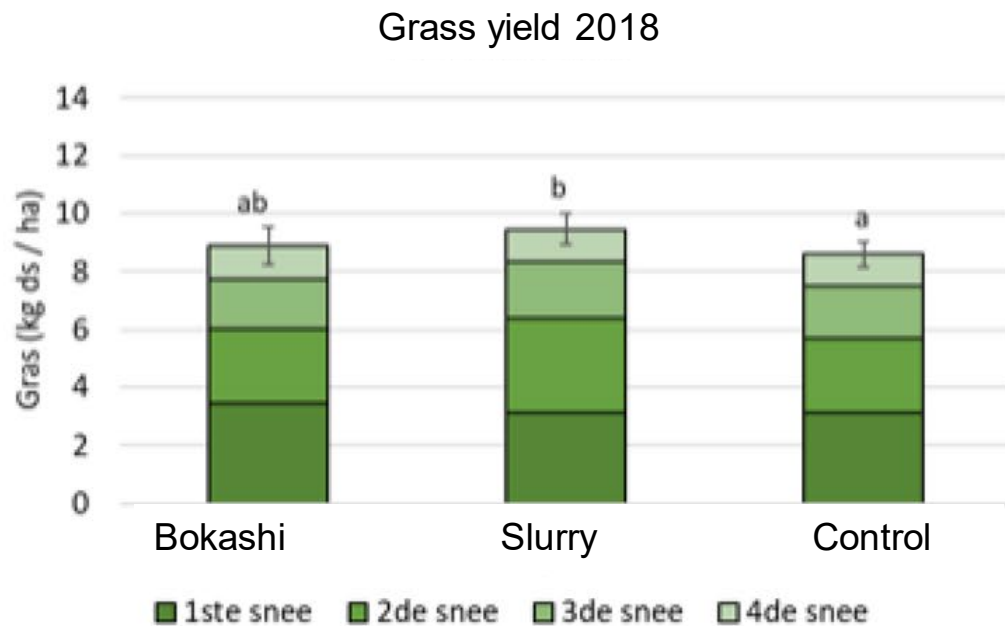
Bokashi

- Anaerobic
- Preserve
- C/N = 20:1
- Grassy material
- Additives
- Covered/packed
- Leave alone
- 'Intermediate product'
- NOT allowed by Dutch law = waste



Bokashi experiment 2018-2024

- 5 farmers: grass and fodder maize
- Parameters: yield, soil, biodiversity, water retention



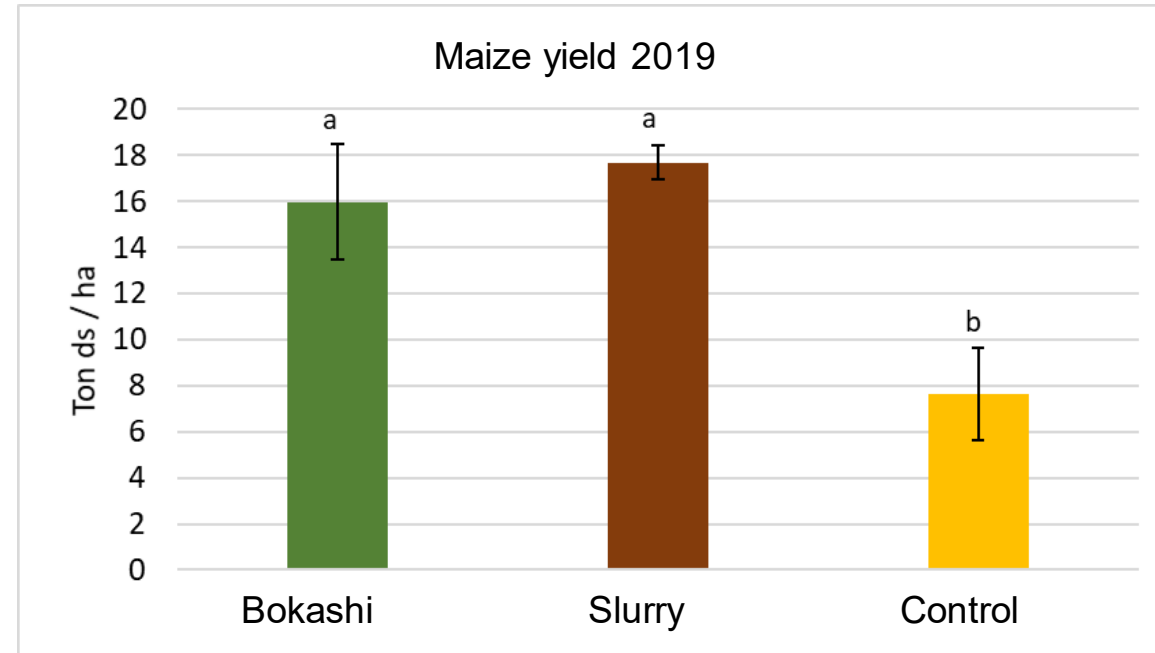
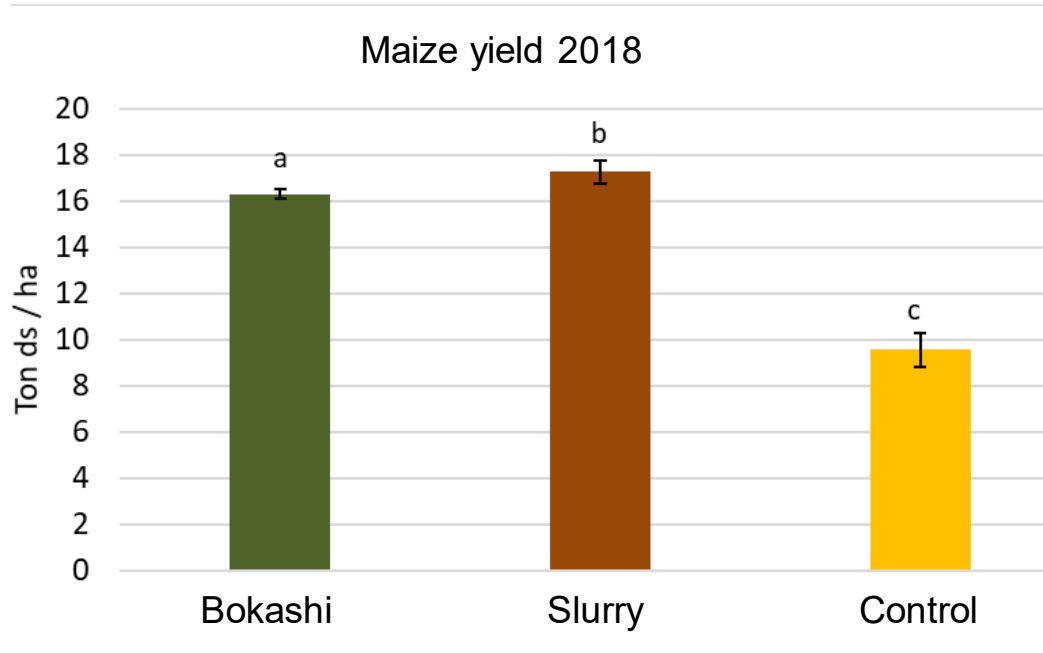
Fertilization 2018 (kg / ha)

	N	P	K
Bokashi	271	86	292
Slurry	273	84	296
Control	49	0	0

Fertilization 2019 (kg / ha)

	N	P	K
Bokashi	206	83	251
Slurry	198	74	238
Control	0	0	0

Bokashi experiment 2018-2024



Fertilization 2018 (kg / ha)

	N	P	K
Bokashi	152	54	180
Slurry	157	52	175
Control	0	0	0

Fertilization 2019 (kg / ha)

	N	P	K
Bokashi	140	52	167
Slurry	165	46	186
Control	0	0	0

Developments

- Law and regulation
- New techniques
- New business models
- Research



 Agricycling



Thank you!




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