

INSTITUTE
OF LIFE
SCIENCES



Scuola Superiore
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Track 4 – synthesis

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Are organic systems a driver for change?

Yes, provided that ...

- They become deaf to the sirens' singing
- Intensification of organic livestock and vegetable farming
 - Increased concentrate and silage use, reduction of pasture area and grazing time, synchronisation of calving season, suboptimal working environment (human and animal stress). BUT 70% roughage seems OK, so there is room for extensification
 - Compare environmental performances of OF across time (give up with comparison with CONV)
 - Excessive standardisation in vegetable farm: low genetic, species and habitat diversity. BUT push-pull strategies promising





Robotic weeder
Axel Månsson's farm





Red clover interseeded in widely-spaced oat residues

Anders Lund's farm



Any new solutions for the organic food and farming systems?

Yes

- New feed (e.g. cold-pressed rapeseed cake, mussel meal, roasted field beans), optimised grazing for automated milking systems
- Solutions for perennial weed control (e.g. combination of cover crops with timely tillage)
- Evolutionary breeding for genetically heterogeneous cultivars (and epigenetics)



Which suggestions for new research questions?

- Still a lot of basic bio-ecological knowledge is lacking. Focus on interactions among taxa (e.g. nematodes/fungi/weeds – clover fatigue)
- Need to better integrate short-term technical solutions in a long-term agroecologically-based system perspective (more flexibility in LTE design)
- Be visionary!
- Need to lobby for recognition of importance of LTE, system approach and interdisciplinary research. De-conventionalise national research evaluation exercises: include recognition of innovation (*sensu* Susanne).

