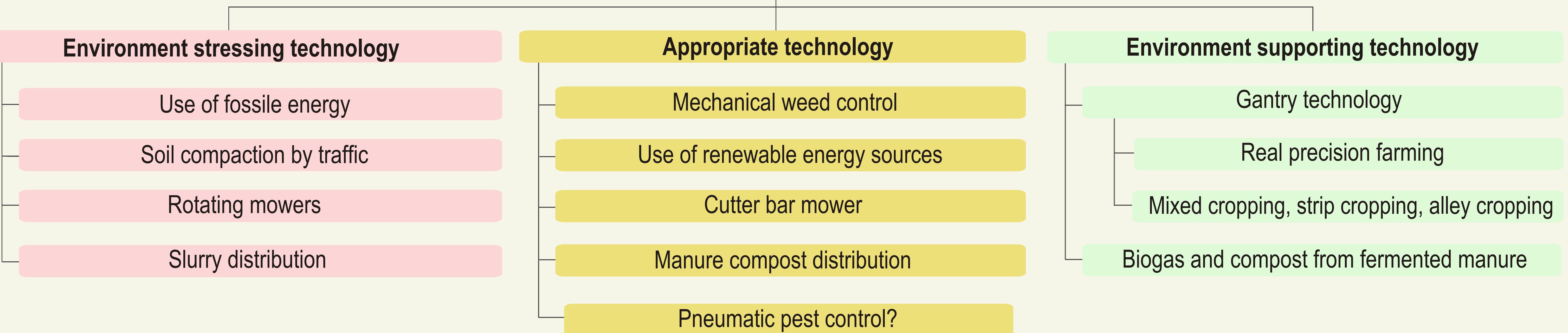


Gantry technology in organic crop production

Objectives

Costs of agricultural machinery and farm buildings are substantial, comprising about 40% of production costs also in organic farming. What are the tasks of agricultural machinery and agricultural engineering research in organic farming? Which agricultural engineering solutions support the basic principles of organic farming?

Technology in organic crop husbandry



Picture: Petri Leinonen
Mini gantry



Picture: Petri Leinonen
... battery powered



Weed control



Planting

Results

Gantry technology

- saves energy and work
- increases profitability
- improves and preserves soil structure
- extends working time periods and assures timeliness of critical operations
- offers weather and day light independent field work
- allows precise fertiliser distribution and irrigation
- supports high precision intra-row weed control
- allows field mapping for various objectives
- offers automation of repeating work steps
- grants better working conditions



Picture: Gintas Viselga
Electrically powered centre pivot



Picture: Ohane et al. 1994
12-m gantry with combine harvester



Picture: Josef Dolecek
6-m gantry on soil bin



Picture: http://www.tec.agrar.tu-muenchen.de/gartentechnik/bilder/PVRfoto.jpg
46-m gantry in vegetable production

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