

CIGR-AgEng 2016

Conference on Agricultural Engineering, Aarhus University Denmark, June 26-29, 2016



Call for papers

SPECIAL SESSION 12: Conservation Agriculture and Controlled Traffic farming

Current worldwide soil degradation is affecting agriculture and specifically compromising the production of food and raw materials in a period of world population growth and oncoming climate changes causing foreseeable extreme climatic conditions. Six major threats place soil fertility at risk namely: soil erosion by wind and water, loss of organic matter, soil biodiversity, soil compaction, soil salination and soil pollution. Conservation agriculture CA can address the first three of these soil degradation threats. Conservation agriculture is based on minimal soil disturbance, keeping the soil covered all year round by crop residues or crops and on securing plant diversity by employing crop rotations and cover crops.

Controlled Traffic Farming (CTF) can address the fourth threat: soil compaction. Under CTF management farming, field traffic is restricted to fixed tramlines in the fields leaving 70-80% of the farmed area uncompacted from field traffic. Also, CTF will facilitate the adoption of conservation agriculture (CA) techniques, where topsoil compaction is often a constraint.

Although increasing interest exists, neither CA, CTF nor the combination of the two has become mainstream farming practises in most areas of the world. Engineering effort has a tendency to focus on technical advanced and often complicated farming systems, while there has been less engineering efforts devoted to the development of CA and CTF. Current adoptions to CA and CTF have mainly comprised modifying existing machines to meet the requirements.

Topic areas for the CA / CTF special session:

- CTF developments for different farming systems
- Development of machines for low soil disturbance Sustainability issues including economy and environmental impacts

President of the conference:

Morten Dam Rasmussen (Denmark)

Special session chair

Hans Henrik Pedersen (Denmark)

Thomas Anken (Switzerland)

Milan Kroulik (Czech Republic)

Submission is now open.

You are kindly invited to submit your abstract through the CIGR - AgEng 2016 conference site:

<http://conferences.au.dk/cigr-2016/registration-and-submission/>

Select topic: "12. Special session: Conservation Agriculture and Controlled Traffic"

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