



NJF Seminar 422

**Fostering healthy food systems
through organic agriculture -
Focus on Nordic-Baltic Region**
- International Scientific Conference

Tartu, Estonia, 25-27 August 2009

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PROGRAMME

ABSTRACTS

LIST OF PARTICIPANTS

Organized by
Estonian University of Life Sciences
Ministry of Agriculture of the Republic of Estonia
Estonian Organic Farming Foundation
Nordic Association of Agricultural Scientists

Oral presentations: PLANT PRODUCTION – CROP ROTATION, FERTILISERS AND CULTIVARS

Green manure in organic crop rotations – clover performance

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Yields in organic arable crop rotations depend highly on the inclusion of legumes in the rotations. This importance will further increase with an expected ban on import of conventional animal manure. Legume-based green manure is a well known N-source. However, the growth of clover in grass-clover green manures vary considerably and this causes variation in the N-supply of crops that succeed green manure crops. For management purposes it is important to identify the main factors that influence clover development and growth. This paper presents results from the Danish organic crop rotation experiment (www.cropsys.elr.dk). Special focus will be on clover development, N-uptake and residual effect as affected by location and organic cropping system.

Meat and bone meal as fertilizer for oats – From slaughter house waste to fertilizer

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EU permitted in 2006 the use of MBM as fertilizer. MBM contains appreciable amounts of nutrients, therefore farmers and researchers already had an interest in MBM as fertilizer. The Finnish MBM contains 8–9% nitrogen, 5–6% phosphorus and 12–13% calcium. Its C/N ratio is rather low, about 3, 5. The P is bounded with calcium and fertilizing effect of MBM phosphorus lasts for 3–5 years. MBM is a potential high-quality fertilizer for organic farming. The Agrifood Research Center's Kannus conducted a field experiment from 2000 to 2003 with a supplement experiment in 2004. MBM and a conventional industrial fertilizer were compared. Both fertilizers were used 60, 90 and 120 kg total N per hectare. The soil was silty loam, pH being 5, 4. Fertilization effect of MBM was 96% of the chemical fertilizers. The year 2004 without any fertilization should show how large after-effect the fertilization would bring. The fertilization effect was 24% higher after MBM than after chemical fertilizers.