

Department of Agroecology

Research platforms for studies of biowaste products and management

Søren O. Petersen



Waste management chain

Feeding



Treatment



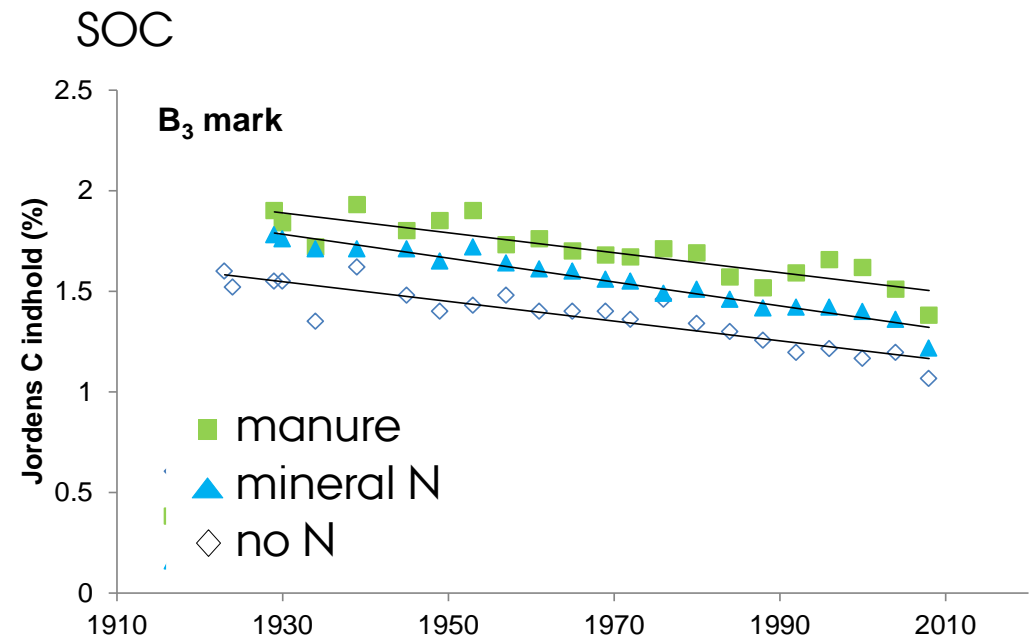
Field application



Storage



Long history of evaluating manure effects



1894: Field experiments initiated at Askov
Experimental Station
(cultivated from approx. 1800)

Long-term crop rotation experiments

Organic rotations (1997-)

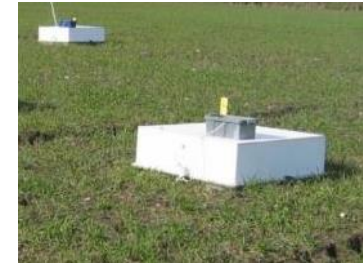
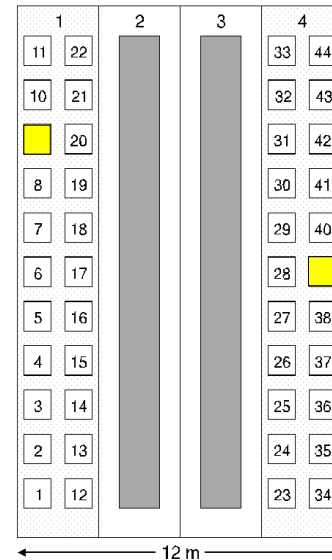


Tillage practices (2002-)



Example 1

Sources of nitrous oxide (N₂O)



	Field	O2	O4	O4	C4
		organic	organic	organic	conventional
3 rd course	1	S. barley:ley	S. barley ^{CC}	S. barley	S. barley
2005-2008	2	Grass-clover	Pea/barley ^{CC}	Pea/barley	Pea/barley
	3	Potato	Potato	Potato	Potato
	4	Winter wheat ^{CC}	Winter wheat ^{CC}	Winter wheat	Winter wheat

^{CC}Catch crop

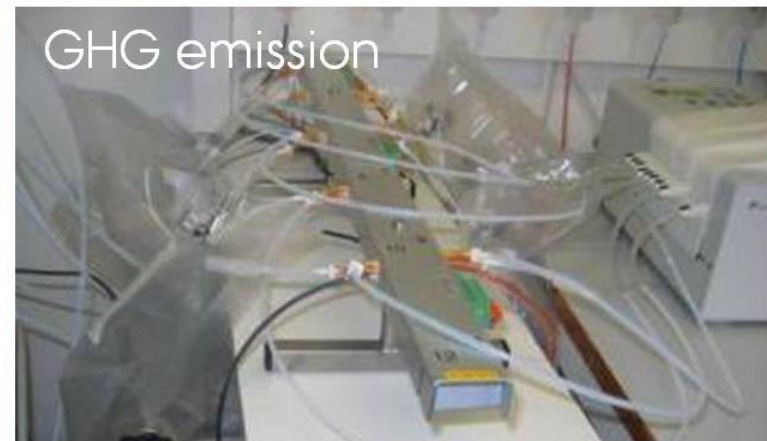
Example 2

Tillage × residue management



		Straw retention	Cover crop	
Moldboard ploughing	MP	+	+	-
Reduced tillage (harrowing 8-10 cm)	RT	+	+	-
Direct drilling ("no-till")	DD	+	+	-

Pilot-scale storage facility



Hvornår i sædskiftet forekommer N₂O-emission?

