WEED CONTROL
in organic crop rotation experiments for grain production

Ilse A. Rasmussen,
Danish Institute of Agricultural Sciences, Dept. of Crop Protection, Research Centre Flakkebjerg, DK-4200 Slagelse, Denmark

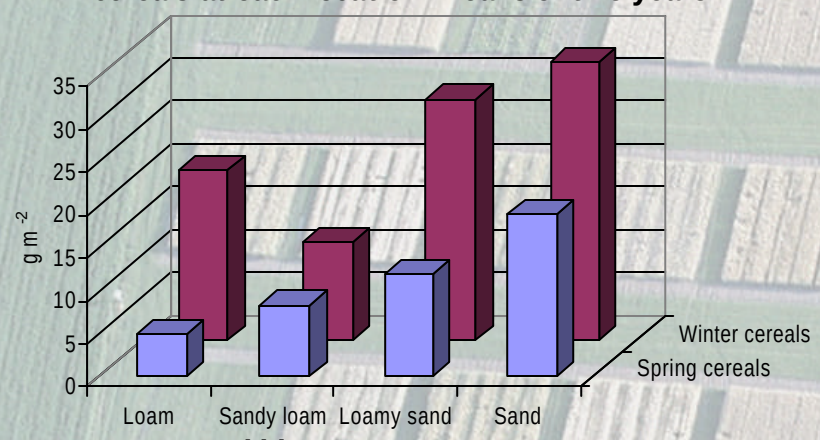
Margrethe Askegaard & Jørgen E. Olesen,
Danish Institute of Agricultural Sciences, Dept. of Crop Physiology and Soil Science, Research Centre Foulum, P.O. Box 50, DK-8830 Tjele, Denmark

WEED CONTROL in cereals

- ✿ preventive measures
- ✿ weed harrowing
- ✿ row hoeing/brush hoeing
- ✿ stubble cultivation

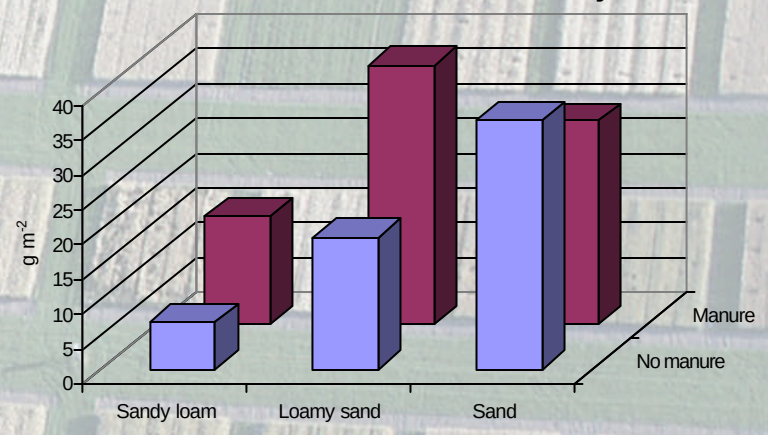
RESULTS

Biomass of weeds in autumn or spring sown cereals at each location. Means of two years.



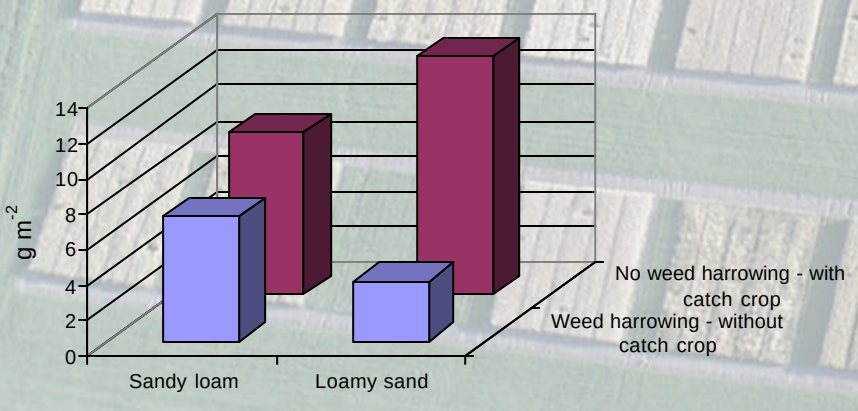
More weed biomass
- ✿ in winter cereals
- ✿ on sandier soils

Biomass of weeds in winter wheat with or without manure at 3 locations. Means of two years.



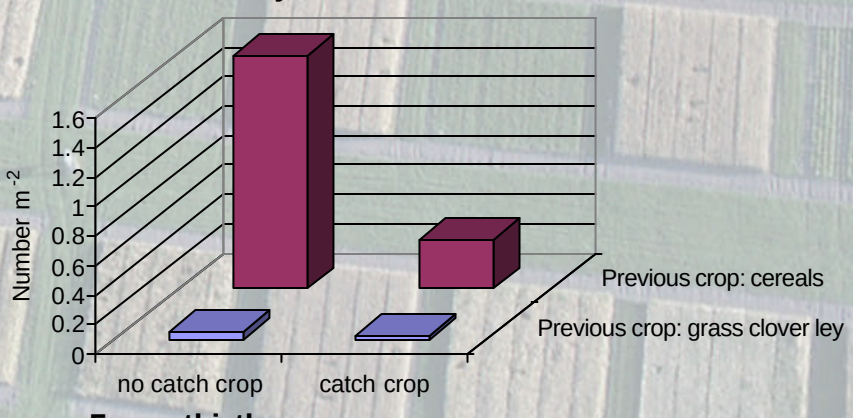
More weed biomass
- ✿ in winter wheat with manure – except on sandy soil

Weed biomass in oats with or without weed harrowing at two locations. Means of two years.



- ✿ Less weed biomass with weed harrowing (without catch crop)

Numbers of thistles in cereals after different crops with or without catch crops in the system. One location one year.



Fewer thistles
- ✿ after grass clover ley
- ✿ after cereals with undersown catch crops

THE EXPERIMENT

4 locations – different soil types, climate, weed flora

- ✿ with and without catch crop
- ✿ with and without manure (40 % of nitrogen demand as slurry)
- ✿ not all rotations at each location

Rotation 1		Rotation 2		Rotation 3		Rotation 4	
Without catch crop	With catch crop	Without catch crop	With catch crop	Without catch crop	With catch crop	Without catch crop	With catch crop
Spring barley + ley		Spring barley + ley		Spring barley + ley		Spring oats	+ white clover
Grass clover		Grass clover		Grass clover		Winter wheat	+ white clover
Spring wheat	+ grass	Winter wheat	+ grass	Winter wheat	+ grass	Winter wheat	+ white clover
Lupin	+ grass	Pea: barley	+ grass	Sugar beet		Pea: barley	+ grass