KNOWLEDGE CENTRE FOR AGRICULTURE

Agriculture and climate uncertainties

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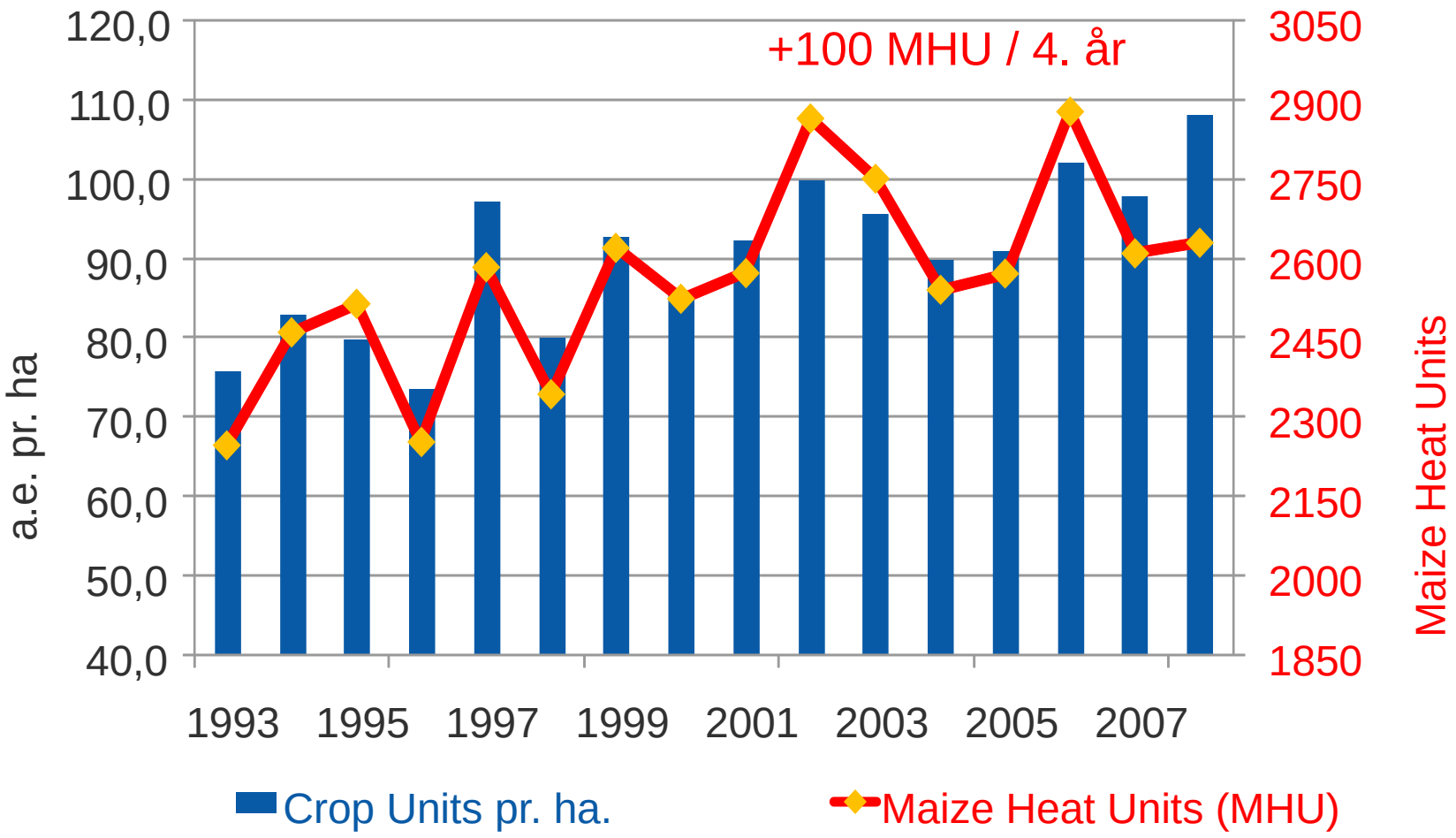
Uncertainty and crop production – short time scale

- A year to year adaption
- But uncertainty about investments
- Example:

Maize yields and maize heat units



Kilde: DJF og Danmarks Statistik

Uncertainty and crop production

Table 1. Maize area (1000 ha) in Denmark, 1998-2010.*

Maize	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Silage	47	48	62	80	100	117	129	133	134	138	148	155	155
Earlage	-	-	-	-	-	-	<1	1	2	5	10	13	14
Corn/CCM	-	-	-	-	-	-	<1	<1	1	2	5	7	9
Bioenergy	-	-	-	-	-	-	-	-	-	-	-	4	5
Total	47	48	62	80	100	117	130	135	137	145	163	179	183

Potential for 150.000 ha Corn/CCM to pic production if temp . keeps rise
Today potential for may be 50.00 ha – but investments in machines

Uncertainty – medium time scale 10-15 years

- Investment in irrigation – what will needs be for irrigation? Permissions?
- Probability of different pests with temp increase
- Investments in machine capacity – bigger machines needed with fewer days with ”good” weather
- Environment
  - VFD – climate change incl in next plan periode

Uncertainty – long time scale up to 30 years

- Investments in drainage
  - Groundwater levels?
  - Dimensions?
- Investmens in organic soils i river valleys

- Most decisions for the farmer are made on a 10-15 years time scale