



Impact of Plant Breeding on EU Farmers

FARMERS' POINT OF VIEW

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Chairman Working party on Seed

Seminar on Farm Saved Seed

04/03/2020

copa***cogeca**
european farmers european agri-cooperatives

copa

european farmers



cogeca

european agri-cooperatives

- Created in **1958**
- 22** million European farmers and family members
- 60** full members from the EU Member States and 36 partner organisations

- Created in **1959**
- 22,000** European agricultural cooperatives
- 35** full members from the EU Member States, 4 affiliated members and 36 partner organisations



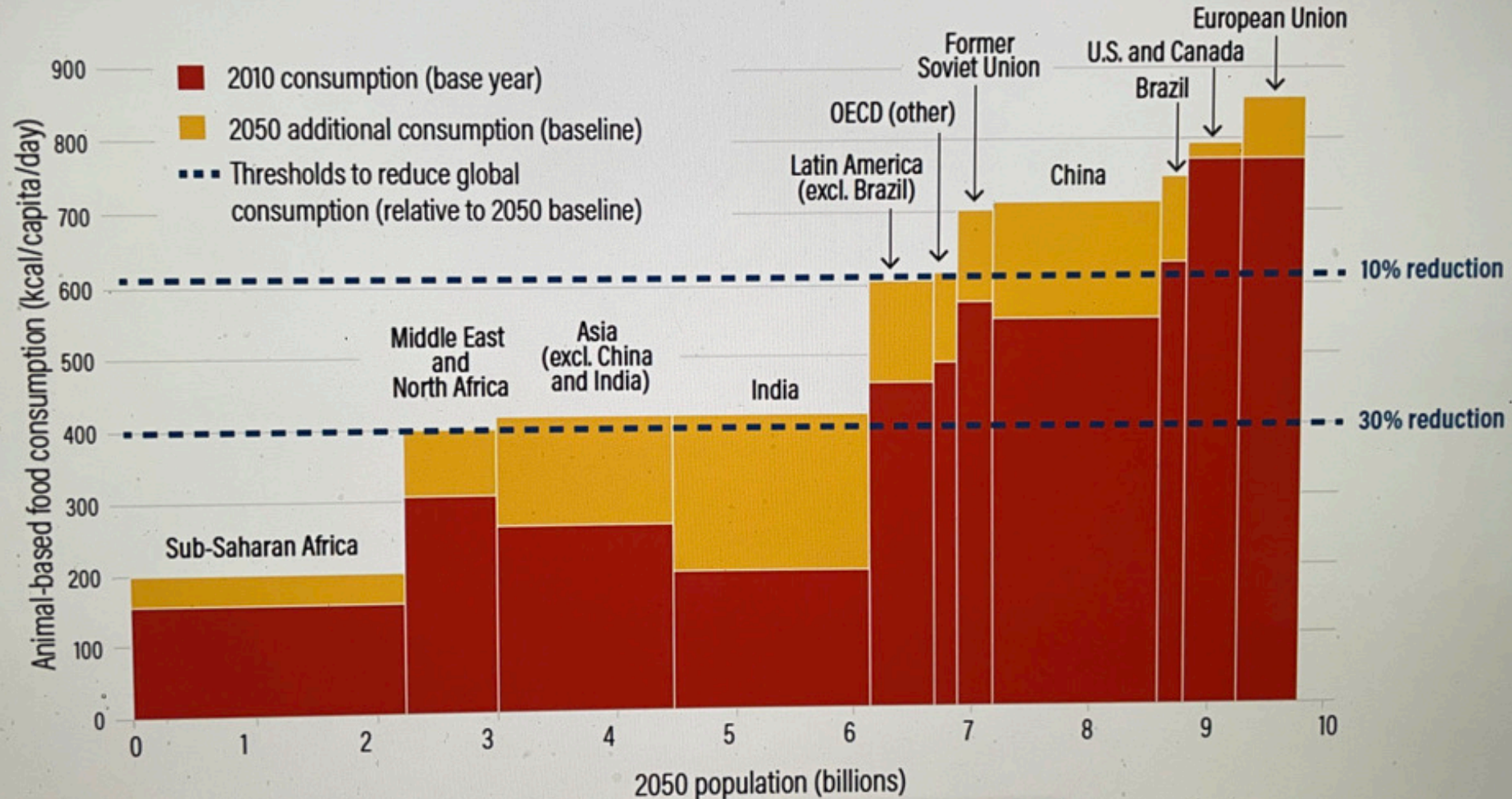
In **1962**, a joint Secretariat was created, making it one of the largest and most active organisations in Brussels for the past **60** years.

Better Varieties needed more than ever!

- Climate Change
- Pesticide resistant
- Special Industry demands
- Feed the world!
- Political movements!



Even with massive diet shifts among wealthy, world will eat more pork and dairy

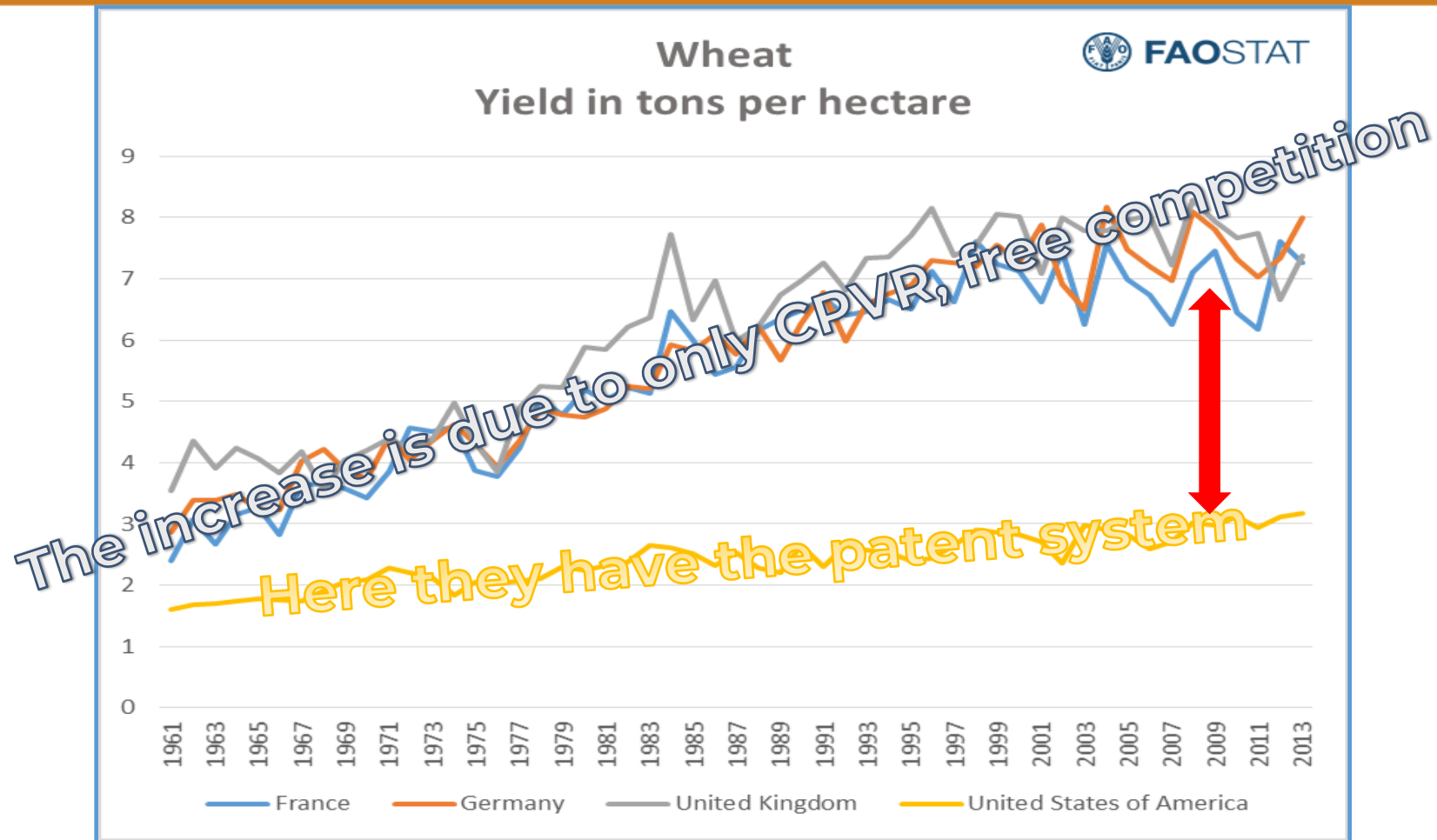


What is interesting for the farmers

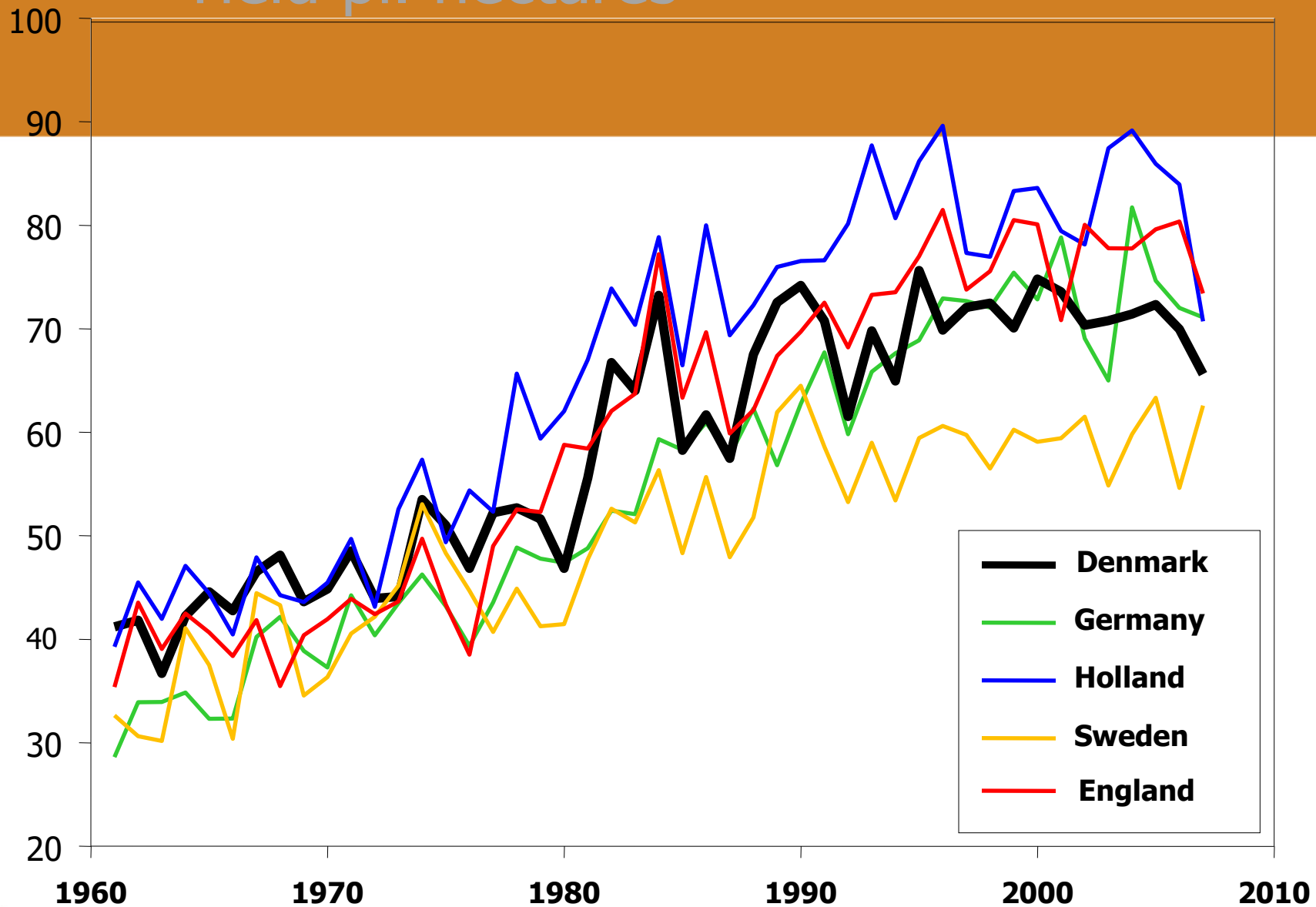
- We need to increase the yields with 45 % before 2050
- We need better seed
- To know all about the variety and the possible benefit
- It is the VCU



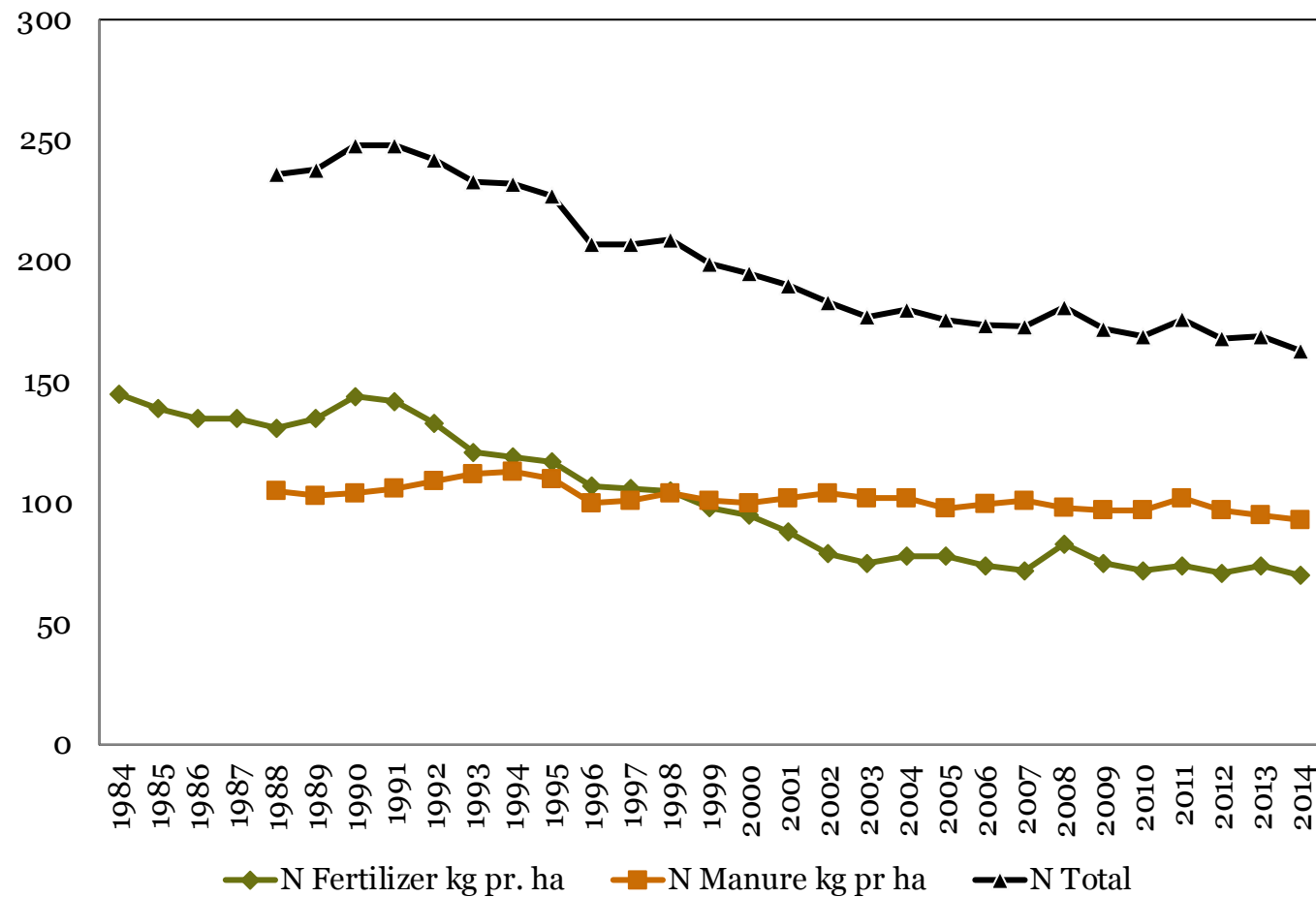
EU Main producers /USA



Yield pr. hectares

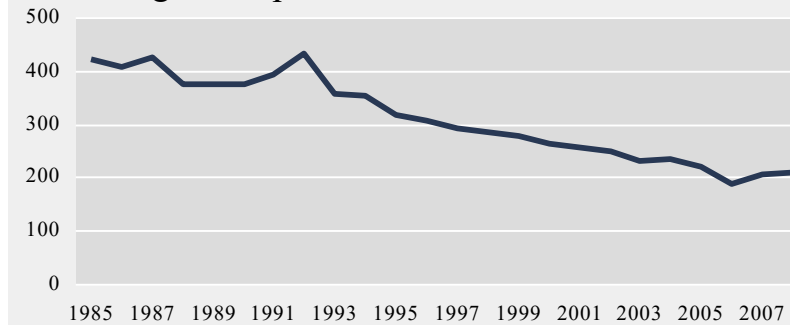


Danish input of Nitrogen pr. Hectar

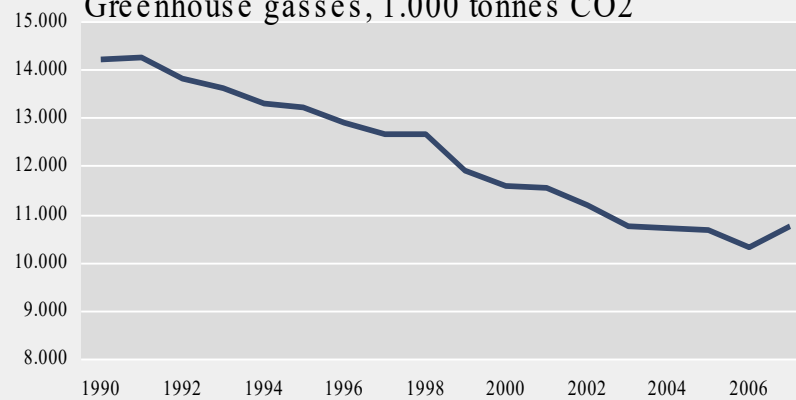


Danish Reductions in environmental impact

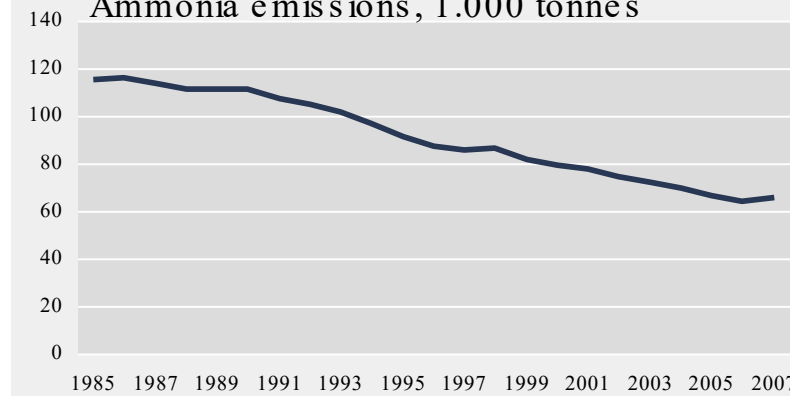
Nitrogen surplus, 1.000 tonnes



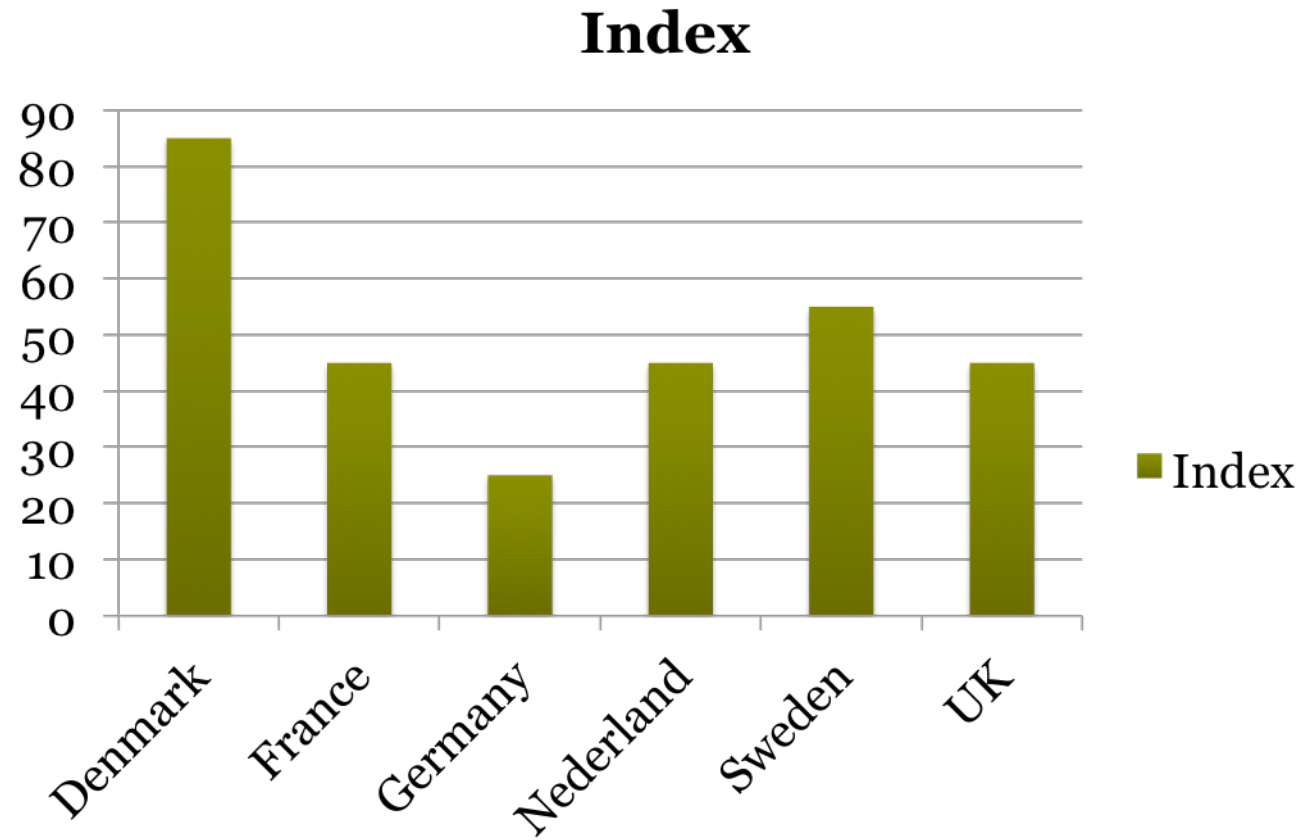
Greenhouse gasses, 1.000 tonnes CO2



Ammonia emissions, 1.000 tonnes



Percentage Certified cereal seed



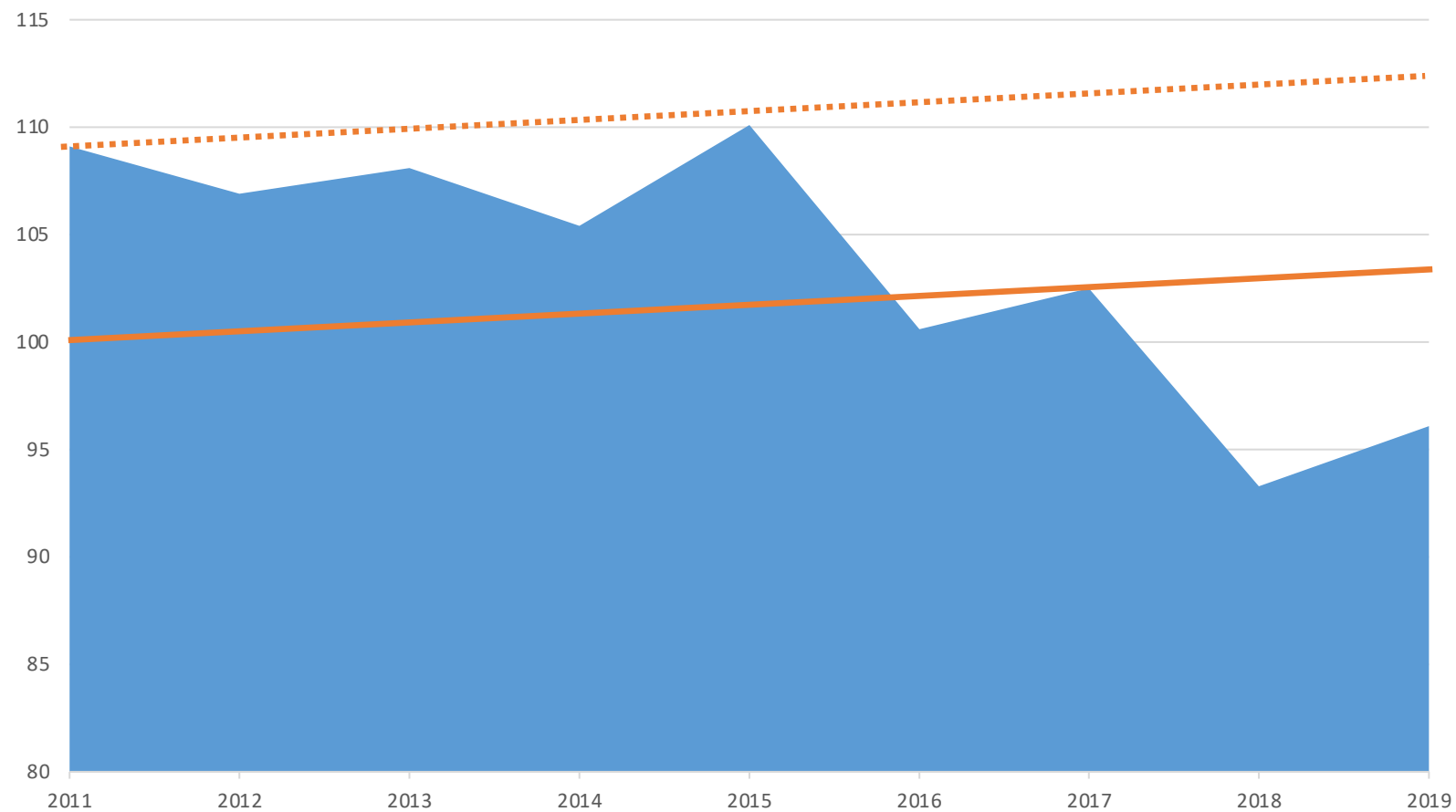
The perfect Variety list

	Yield					Diseases (Observation Plots)			Cultivation (Observation Plots)			
	Grain yield index (index) ↑	Grain yield, hkg per ha (hkg/ha) ↑	Starch, % in dry matter (%) ↑	Specific weight, Tested variety (kg/hl) ↑	Crude protein in dry matter, Tested variety (%) ↑	Mildew coverage (%) ↑	Septoria coverage (%) ↑	Yellow rust coverage (%) ↑	Ripening date ↑	Straw length (cm) ↑	Lodging (score 0 - 10) ↑	
	🌾🌐	🌾🌐	🌾🌐	🌾🌐	🌾🌐	🌾🌐	🌾🌐	🌾🌐	🌾🌐	🌾🌐	🌾🌐	
Showing 55 of 55 rows												
Year	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	
LSD	3.3	3.19	0.61	1.36	0.25	-	-	-	-	-	-	
☐ Benchmark	🌾	100 (10)	101.7 (10)	70.9 (10)	75.1 (10)	10.6 (10)	0.90 (12)	3.8 (17)	43 (17)	01/08 (6)	90 (5)	0.3 (9)
☐ Blanding.vi-hved	🌾	100 (10)	102.2 (10)	71.5 (10)	75.8 (10)	10.4 (10)	2.5 (12)	5 (17)	5 (17)	01/08 (6)	89 (5)	0.0 (9)
☐ Canon	🌾	90 (10)	92.0 (10)	69.8 (10)	74.1 (10)	10.4 (10)	1.8 (12)	9 (17)	10 (17)	01/08 (6)	80 (5)	0.0 (9)
☐ Chevignon	🌾	100 (10)	102.1 (10)	72.1 (10)	76.5 (10)	11.0 (10)	2.2 (12)	8 (17)	0.00 (17)	01/08 (6)	84 (5)	0.7 (9)
☐ Creator	🌾	95 (10)	97.0 (10)	71.3 (10)	75.3 (10)	10.7 (10)	1.3 (12)	2.4 (17)	2.4 (17)	02/08 (6)	89 (5)	0.7 (9)
☐ Drachmann	🌾	99 (10)	101.7 (10)	70.9 (10)	74.8 (10)	10.7 (10)	0.00 (12)	6 (17)	7 (17)	01/08 (6)	84 (5)	1.3 (9)
☐ Elixer	🌾	96 (10)	98.1 (10)	71.2 (10)	77.1 (10)	11.0 (10)	5 (12)	7 (17)	0.90 (17)	01/08 (6)	84 (5)	1.0 (9)
☐ Graham	🌾	100 (10)	102.7 (10)	71.2 (10)	75.5 (10)	10.8 (10)	0.50 (12)	9 (17)	0.00 (17)	31/07 (6)	73 (5)	0.0 (9)
☐ Hallfreda	🌾	94 (10)	96.5 (10)	70.1 (10)	76.7 (10)	10.5 (10)	0.10 (12)	10 (17)	0.00 (17)	01/08 (6)	88 (5)	1.0 (9)
☐ Heerup	🌾	105 (10)	107.5 (10)	71.8 (10)	77.1 (10)	10.3 (10)	0.30 (12)	4.7 (17)	0.70 (17)	01/08 (6)	87 (5)	0.0 (9)
☐ Hymalaya	🌾	104 (10)	106.3 (10)	71.8 (10)	77.8 (10)	10.5 (10)	1.1 (12)	7 (17)	0.90 (17)	01/08 (6)	94 (5)	0.1 (9)
☐ Informer	🌾	104 (10)	106.6 (10)	70.4 (10)	76.8 (10)	10.7 (10)	2.1 (12)	3.2 (17)	0.00 (17)	01/08 (6)	95 (5)	0.0 (9)
☐ Johnson	🌾	96 (10)	98.2 (10)	71.2 (10)	73.8 (10)	10.6 (10)	0.90 (12)	12 (17)	0.20 (17)	01/08 (6)	82 (5)	0.2 (9)
☐ Kalmar	🌾	93 (10)	94.9 (10)	71.1 (10)	73.2 (10)	10.5 (10)	5 (12)	6 (17)	14 (17)	03/08 (6)	78 (5)	0.0 (9)
☐ Kvarn	🌾	96 (10)	98.3 (10)	71.5 (10)	76.9 (10)	10.3 (10)	1.2 (12)	12 (17)	0.00 (17)	01/08 (6)	81 (5)	0.3 (9)
☐ Kvium	🌾	104 (10)	106.7 (10)	70.9 (10)	74.9 (10)	10.4 (10)	1.1 (12)	6 (17)	0.00 (17)	01/08 (6)	82 (5)	0.8 (9)
☐ KWS Colosseum	🌾	107 (10)	109.1 (10)	71.5 (10)	74.8 (10)	10.2 (10)	1.5 (12)	3.4 (17)	0.00 (17)	02/08 (6)	75 (5)	0.0 (9)
☐ KWS Crownum	🌾	100 (10)	102.0 (10)	71.6 (10)	75.2 (10)	10.5 (10)	0.40 (12)	10 (17)	0.10 (17)	02/08 (6)	76 (5)	0.2 (9)
☐ KWS Dag	🌾	98 (10)	99.8 (10)	70.5 (10)	77.4 (10)	11.4 (10)	2.2 (12)	15 (17)	0.10 (17)	31/07 (6)	87 (5)	0.3 (9)
☐ KWS Extase	🌾	106 (10)	108.5 (10)	71.2 (10)	76.8 (10)	11.0 (10)	2.2 (12)	4.6 (17)	0.00 (17)	01/08 (6)	80 (5)	0.1 (9)
☐ KWS Firefly	🌾	104 (10)	106.0 (10)	70.6 (10)	74.6 (10)	10.8 (10)	4.3 (12)	4.5 (17)	0.30 (17)	03/08 (6)	74 (5)	0.0 (9)
☐ KWS Leif	🌾	102 (10)	104.5 (10)	70.4 (10)	71.5 (10)	11.0 (10)	0.90 (12)	10 (17)	0.00 (17)	30/07 (6)	78 (5)	0.4 (9)

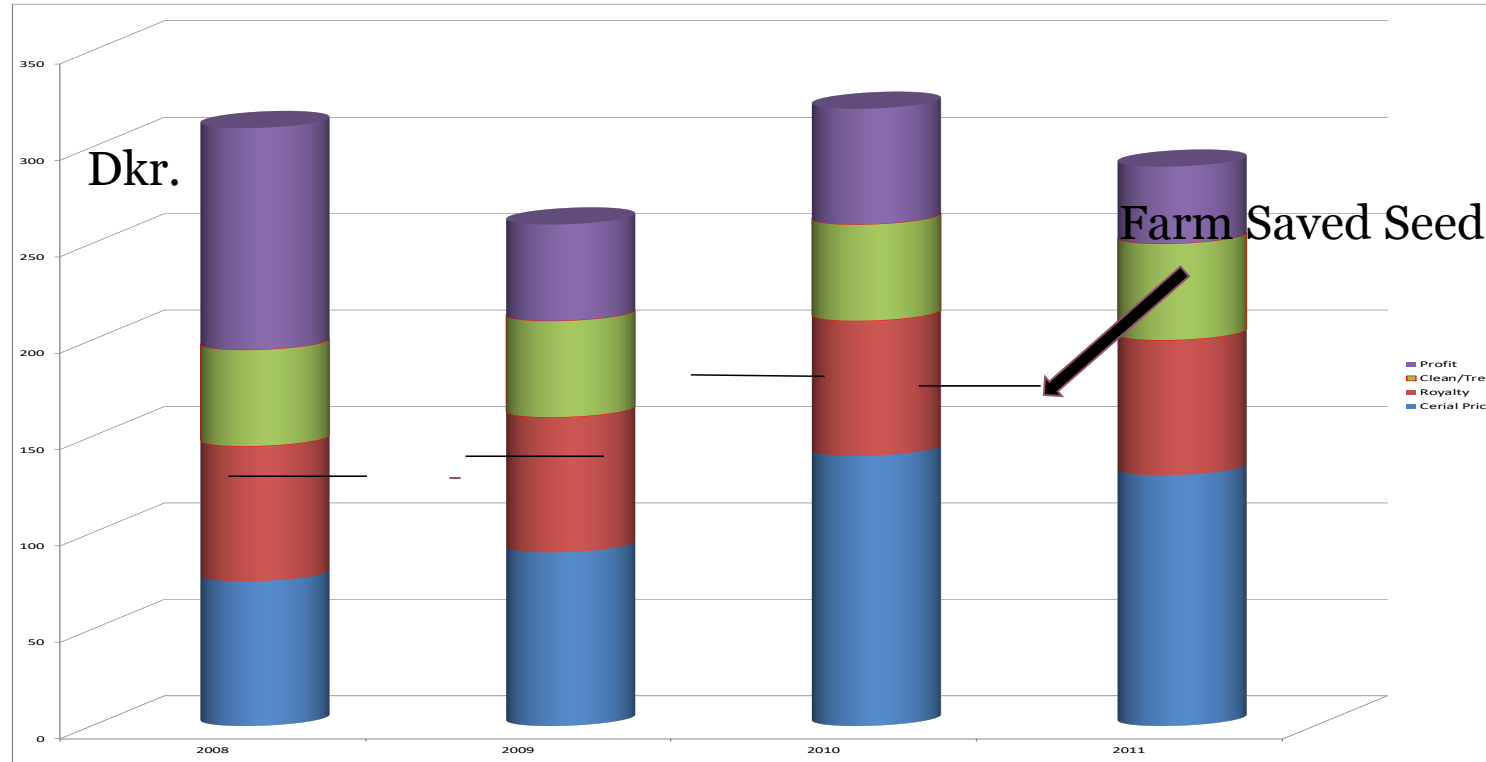


Yield trends average of the top 20 varieties in DK

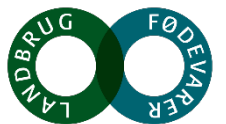
Top variety in 2011-2016



Analyze of the Cereal Seed Price



Noget at level f. Noget at leve for.



Breeders rights, farmers rights and so what?

- Can breeders forcing farmers with rules ?
- Do farmers know about the rules?
- Is it a good idea to take farmers in court?

• No!



COPA/CEGECA is a supporter of CPVR

- We need rules for protection
- We need Breeders exception
- Without that, we will have no innovation.
- We need better varieties every year in every corner of EU



Thank you

