



The importance of new plant varieties for farmers and growers,
FARMERS' POINT OF VIEW
从农户视角分析植物新品种对农户和种植者的重要性

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Chairman Working party on Seed 种子工作小组主席

Seminar on Farm Saved Seed 农场留种研讨会

04/03/2020

copa * **cogeca**

european farmers

european agri-cooperatives

欧盟农户协会

copa

european farmers



欧盟农业合作联盟

cogeca

european agri-cooperatives



Created in **1958**

1958年成立



22 million European farmers and family members

2200万欧洲农户和农户家庭成员



60 full members from the EU Member States and 36 partner organisations

60个正式会员（来自欧盟成员国）、36家合作组织



Created in **1959**

1959年成立



22,000 European agricultural cooperatives

22,000个欧洲农业合作社



35 full members from the EU Member States, 4 affiliated members and 36 partner organisations

35个正式会员（来自欧盟成员国）、4个附属会员、36家合作组织



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

1962年，COPA-COGECA成立联合秘书处，并成为布鲁塞尔过去60年来规模最大、最活跃的组织之一

If you ask Farmers Benefits of protection ?????

倘若你问农户：植物品种保护有何好处？

- Farmers from 28 different countries will give more than 50 different answers!
- 来自28个国家的农户可能会给出50多种答案！
- Majority of farmers want new and better varieties, but do they want to pay?
- 大部分农户都想要更好、更新的品种，不过他们是否愿意为此买单呢？
- Different from country to country have focus farmers are on new varieties.
- 农户对新品种的关注程度因国而异
- Different from country to country what farmers demand from a new varieties.
- 农户对新品种的需求也因国而异
- The larger the farm the greater knowledge of the relationship between new varieties and improved yields
- 农场越大，农户对新品种与增产之间关系的认识就越多



Better Varieties needed more than ever! 对好品种的需求空前急切!

- Climate Change 气候变化
- Pesticide resistant 杀虫剂耐药性
- Special Industry demands 特殊行业需求
- Feed the world! 喂养世界人口!
- **Political movements!** 政治运动!



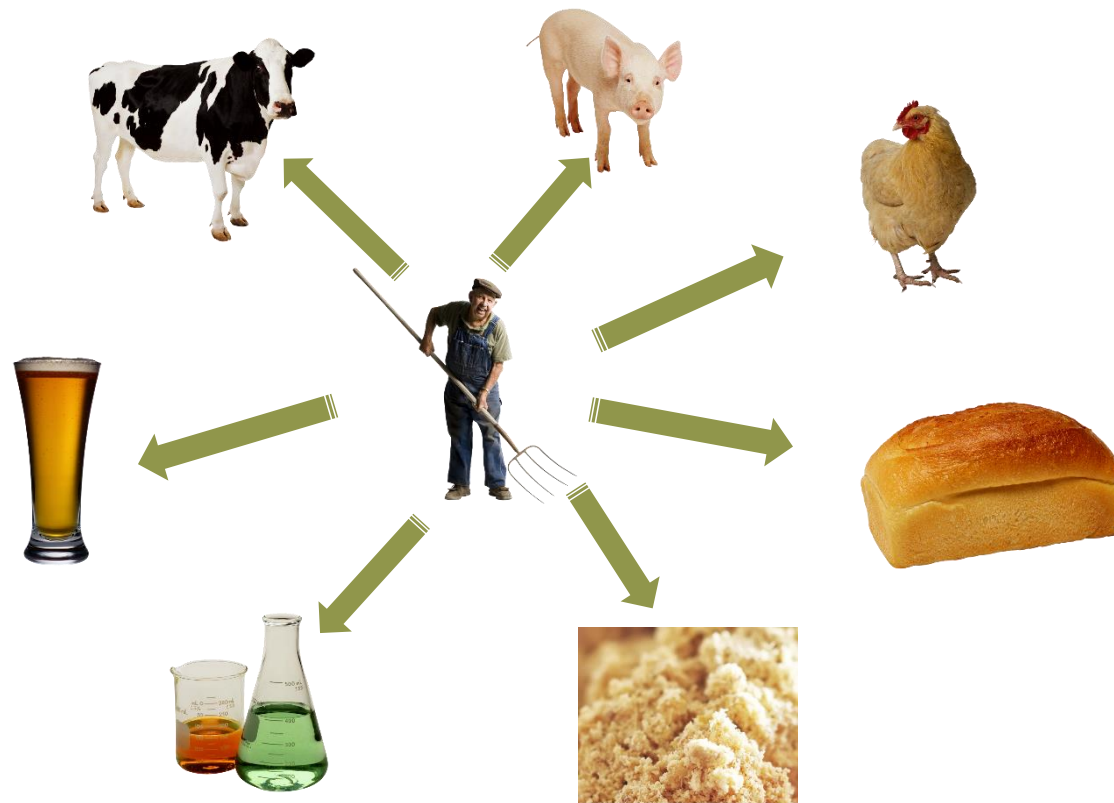
What is interesting for the farmers 农户感兴趣的是什么？

- To know all about the variety and the possible benefit
- 全面了解相关品种及潜在的优势
- It is the VCU
- 栽培价值和使用价值

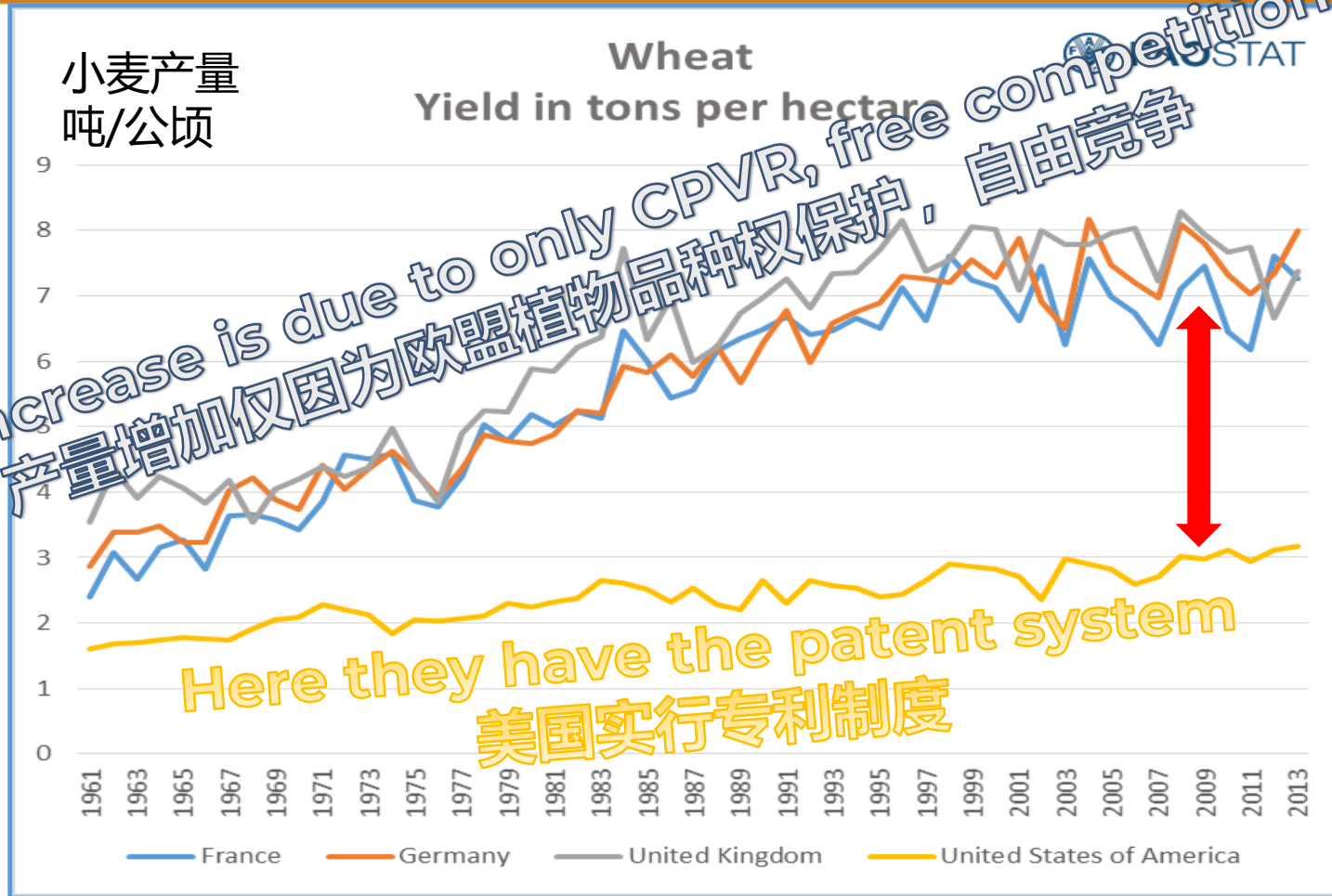


The modern farmer's key decision

现代农户的关键决策



EU Main producers / USA 欧盟主要生产国 / 美国



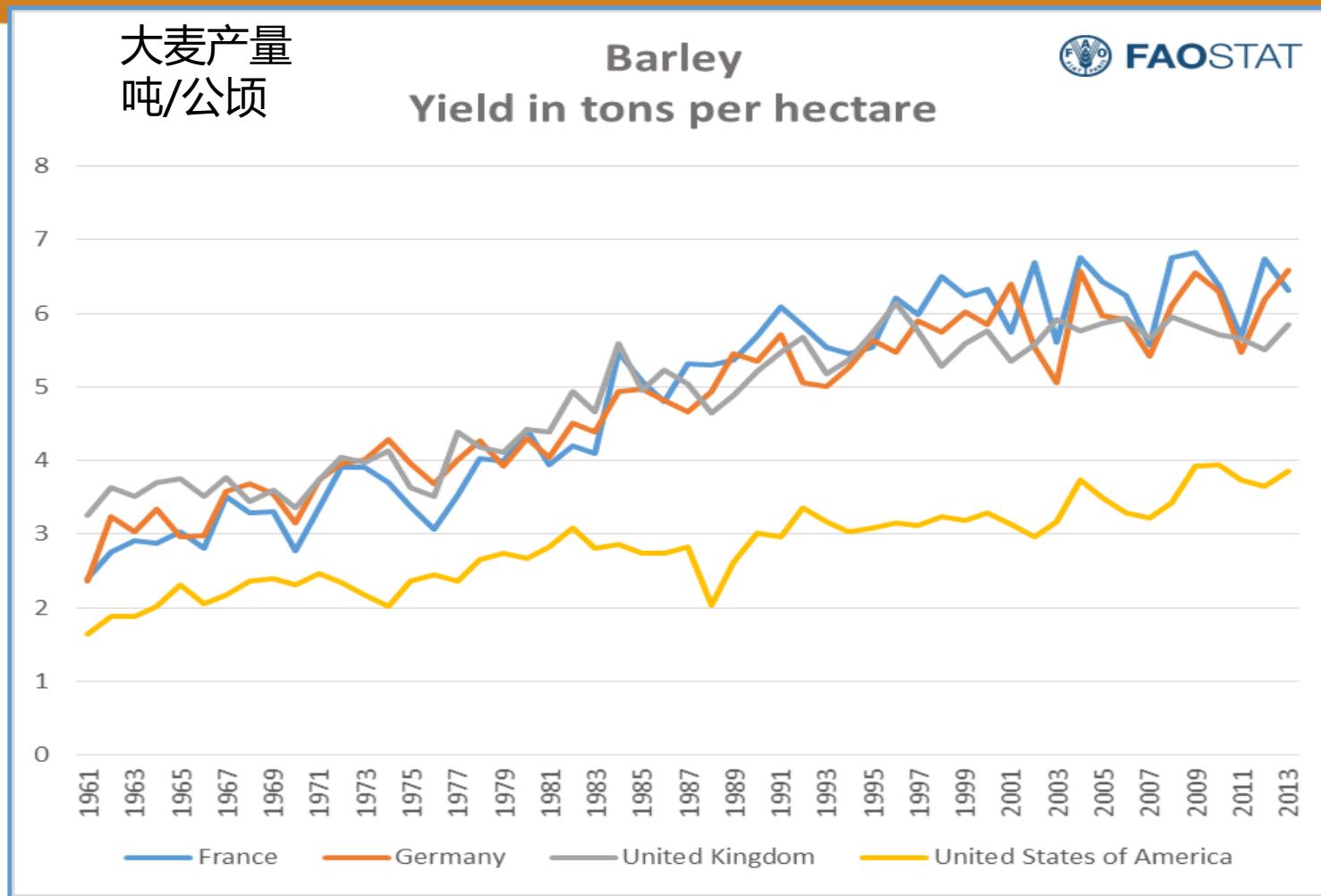
法国

德国

英国

美国

EU Main producers /USA 欧盟主要生产国/美国



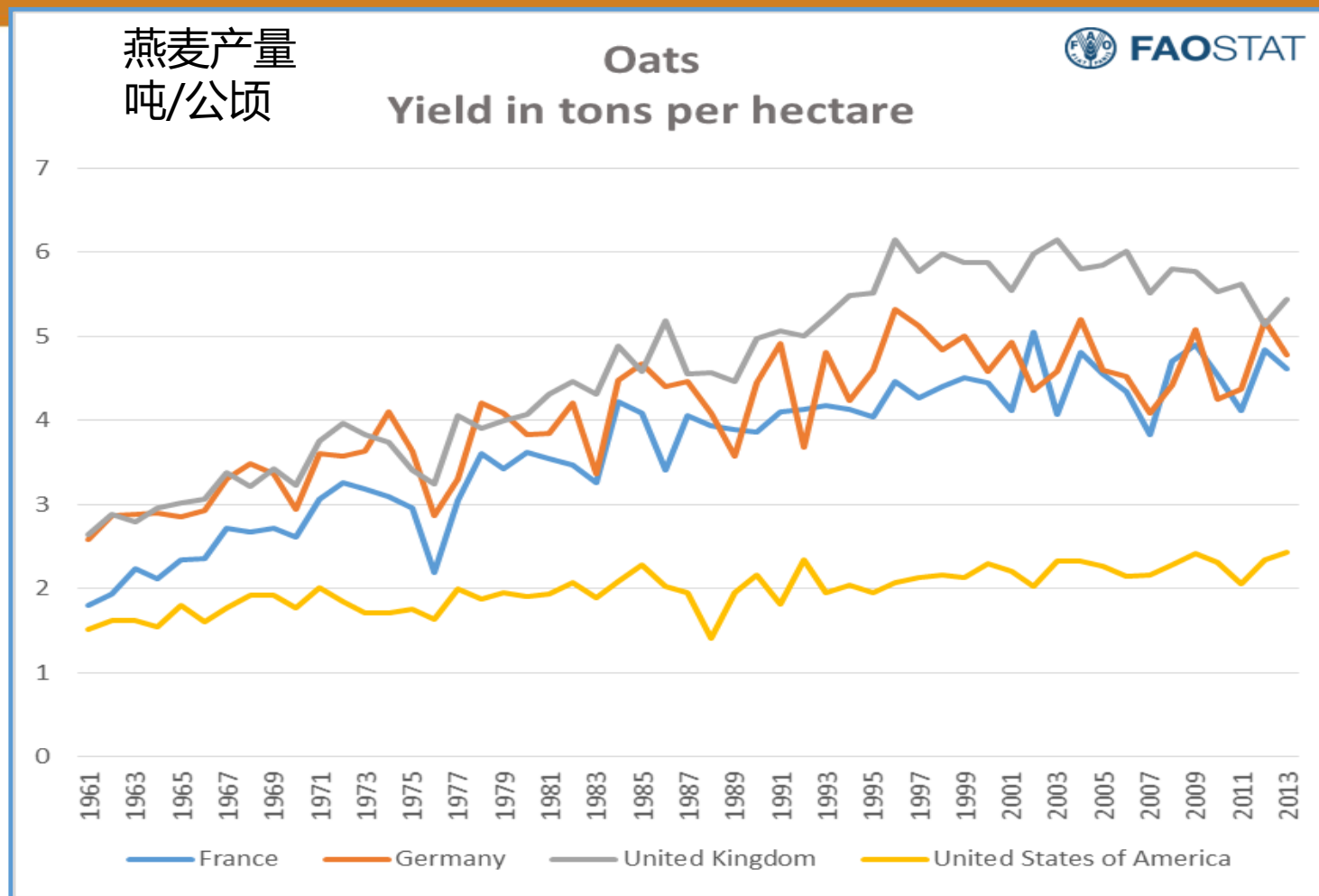
法国

德国

英国

美国

EU Main producers /USA 欧盟主要生产国/美国



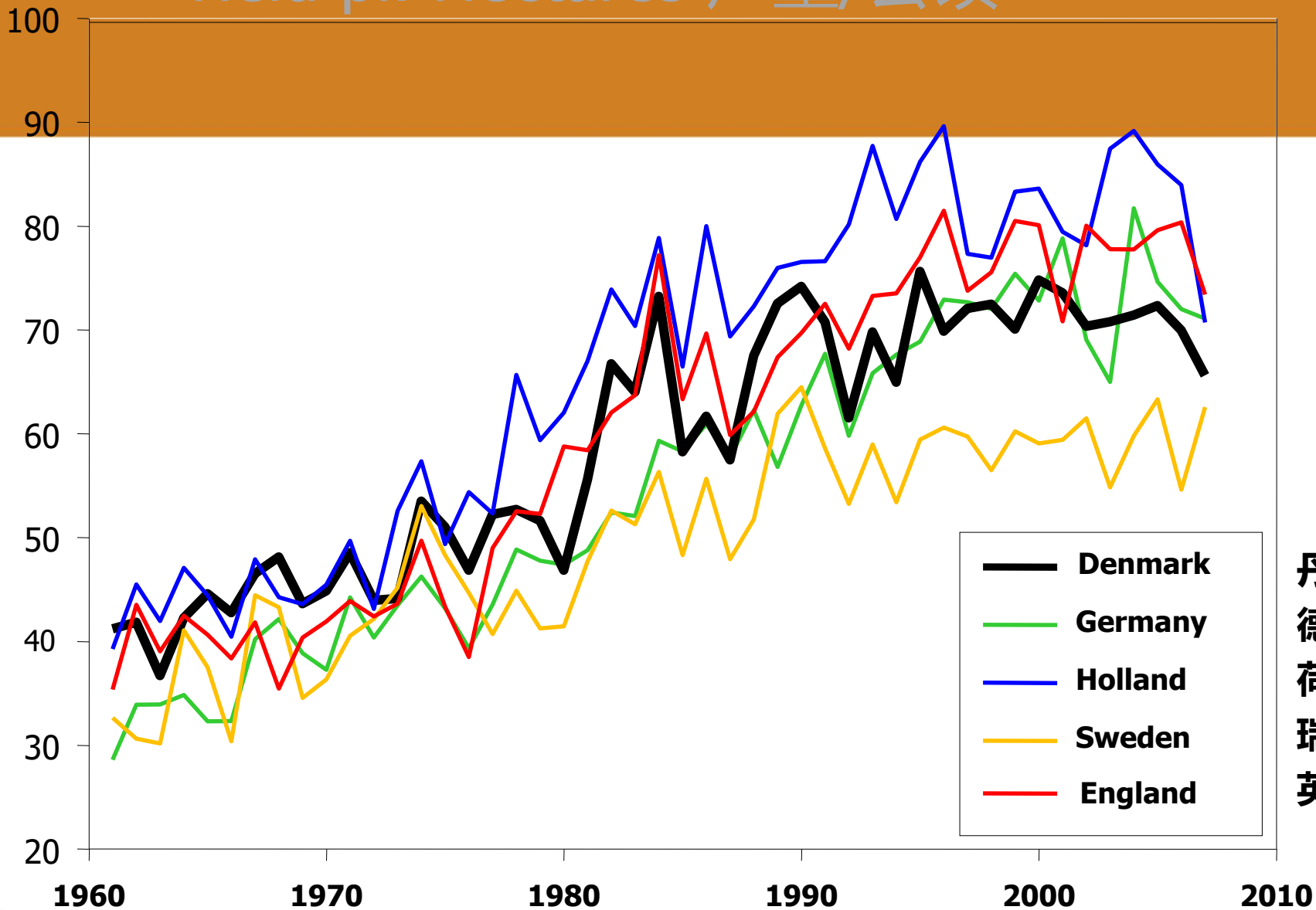
法国

德国

英国

美国

Yield pr. Hectares 产量/公顷

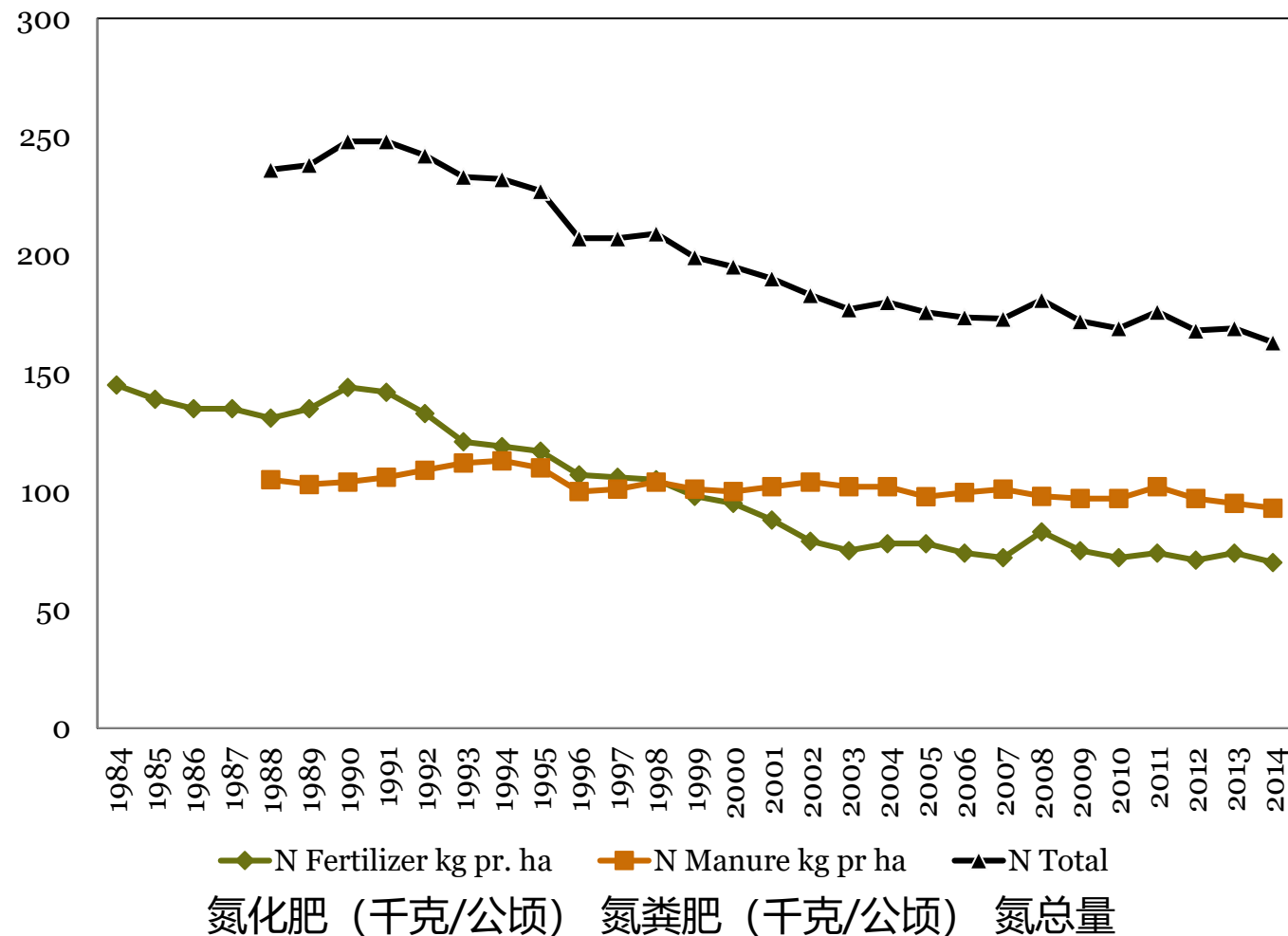


丹麦
德国
荷兰
瑞典
英国



Danish input of Nitrogen pr. Hectar

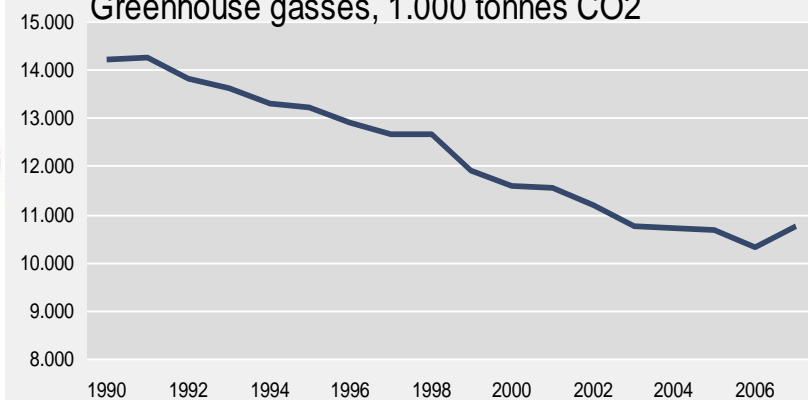
丹麦氮用量/公顷



Danish Reductions in environmental impact 丹麦环境影响改善情况

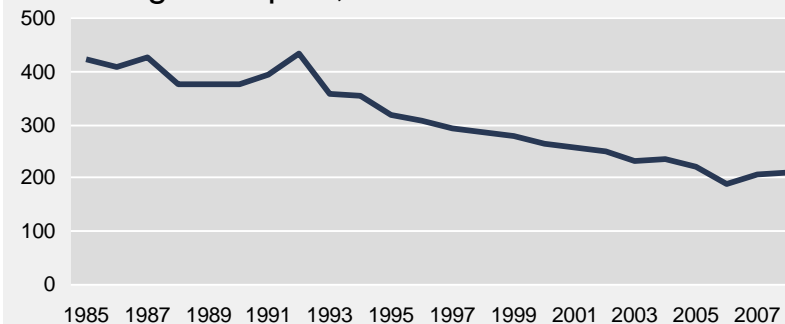
温室气体, 1000吨二氧化碳

Greenhouse gasses, 1.000 tonnes CO2



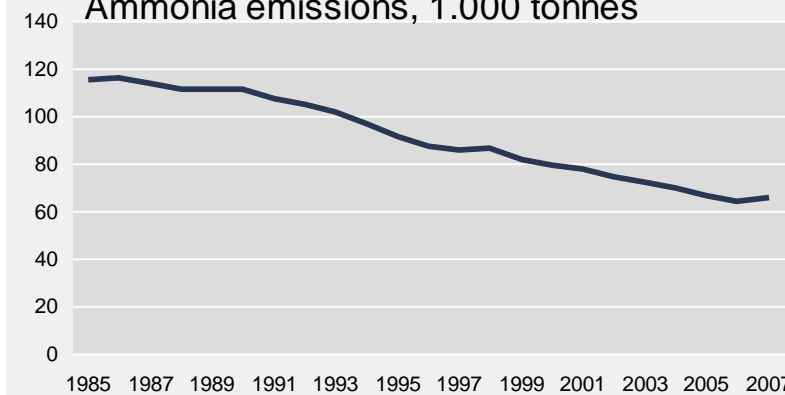
氮过剩量, 1000吨

Nitrogen surplus, 1.000 tonnes



氨排放量, 1000吨

Ammonia emissions, 1.000 tonnes



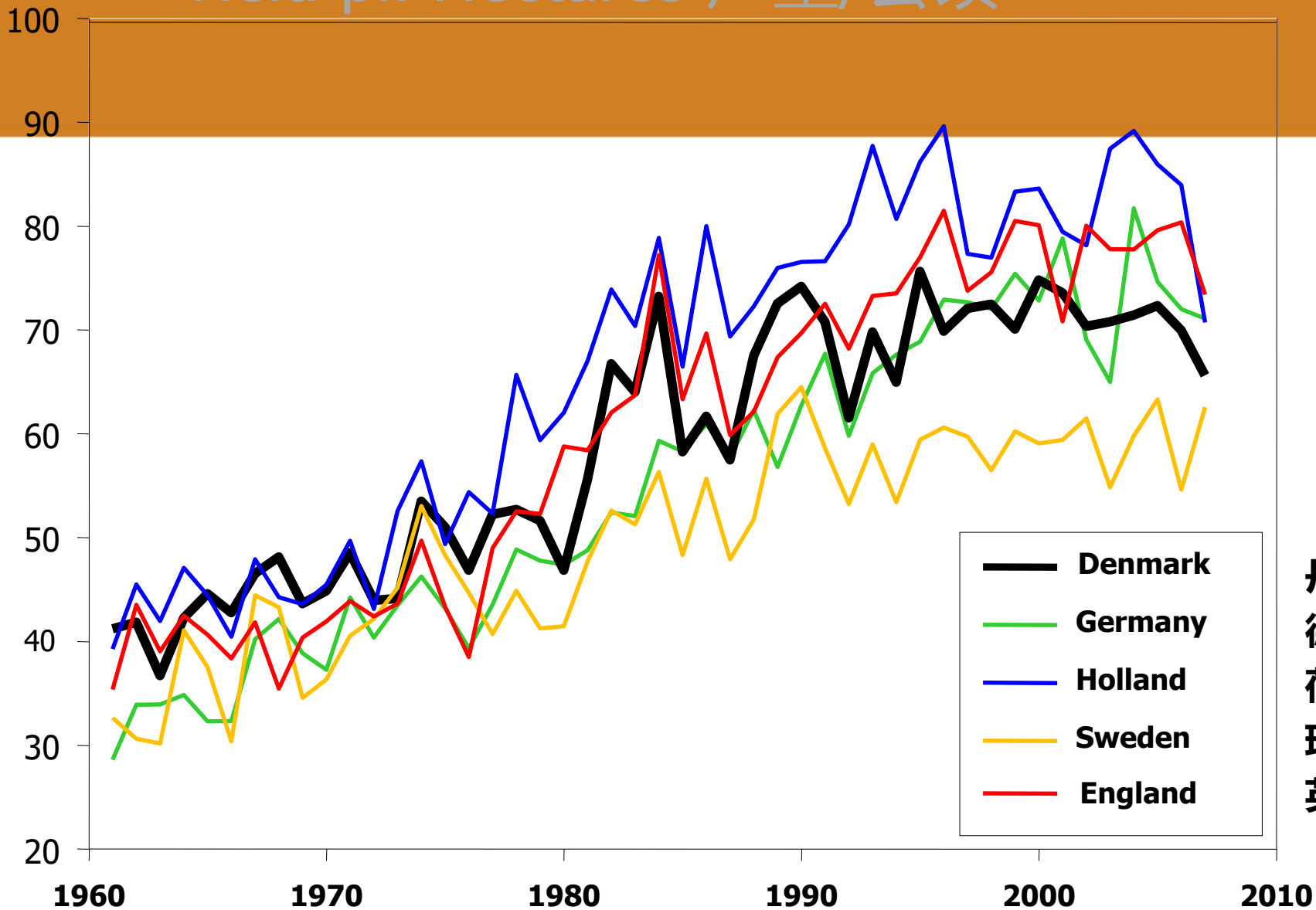
Treatment Index in Denmark and Germany

丹麦与德国的处理指数

	DK 2014 丹麦2014年		Germany 2011-13 德国2011-13年	
	Wheat 小麦	W. Rape 冬油菜	Wheat 小麦	Winter rape 冬油菜
Herbac. 草本杂草	1,44	1,71	2,0	2,2
Growsreg. 生长调节	0,26	0,02	?	?
Fungi 真菌	1,22	0,63	2,4	1,0
Insect 昆虫	0,33	0,83	0,8	2,7
TI in total 总处理指数	3,25	3,18	> 5,2	> 5,9



Yield pr. Hectares 产量/公顷



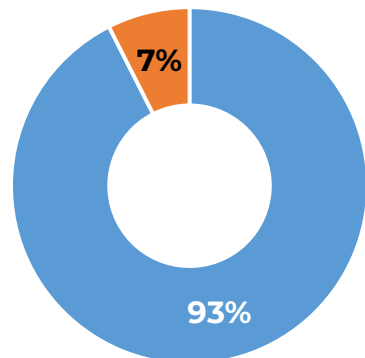
丹麦
德国
荷兰
瑞典
英国



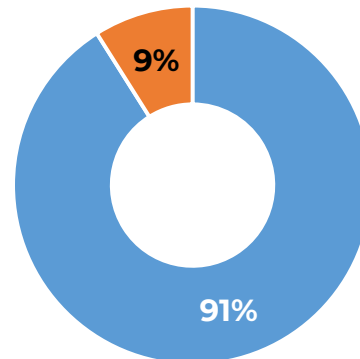
The private and non-commercial use exemption? FSS 社会非商业使用例外? 农场留种

- Farmers use their own seed, if they can't see the benefit in using a new variety.
- 若看不到使用新品种的好处，农户就会使用自留种
- 3 farmers work together, and they want to use their own seed, or save money on good seed
- 几家农户共同合作，可以使用自留种，也可以用积蓄采购好种子
- A more simple system to pay the FSS remuneration
- 简化农场留种收费制度
- Example from a good system
- 优秀制度示例

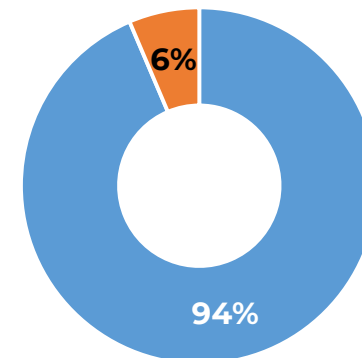
Total DK 丹麦种子总用量



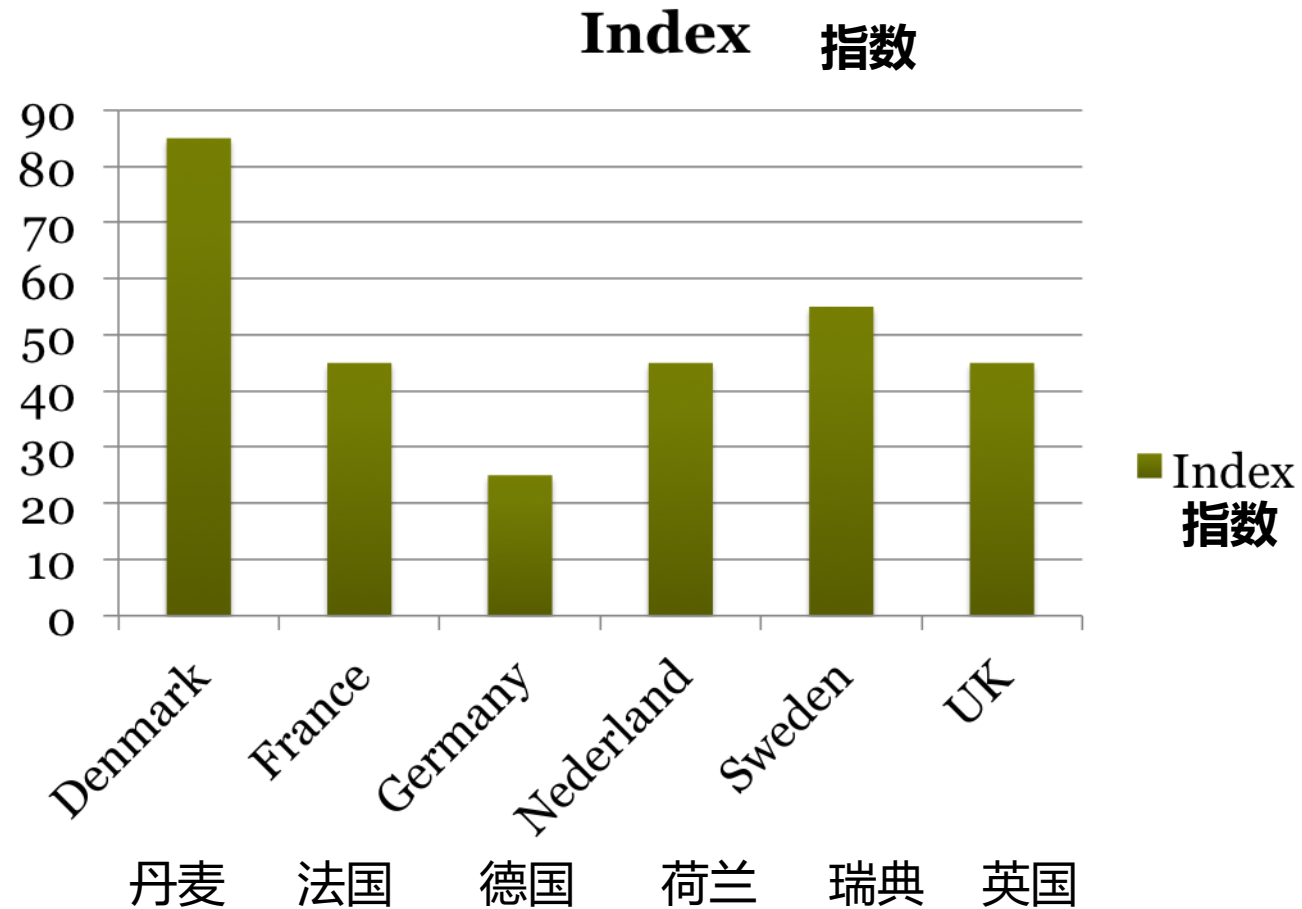
Winter Cereals 冬谷物



Spring Cereals 春谷物



Percentage Certified cereal seed 认证谷物种子所占比例



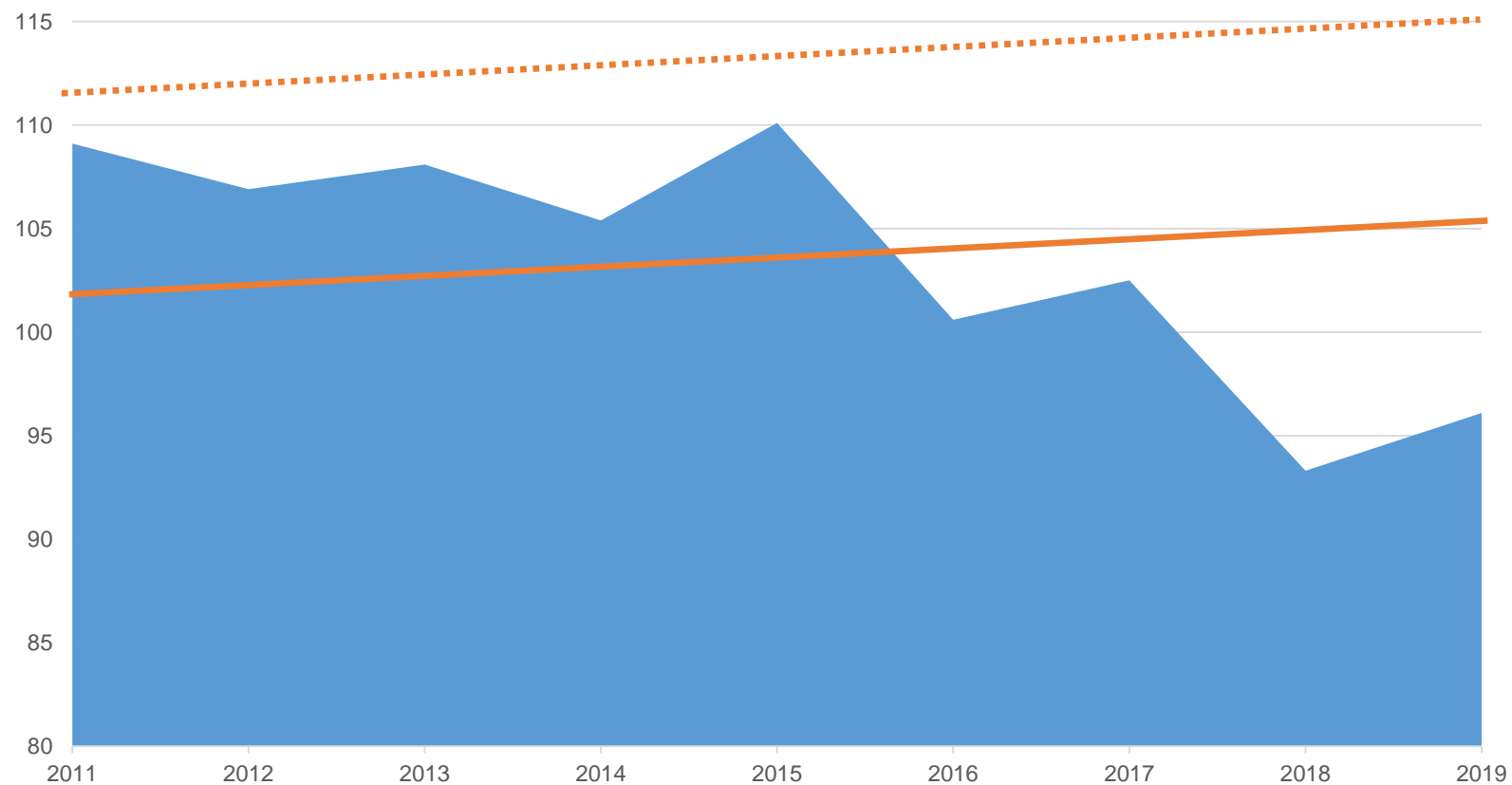
The perfect Variety list 完美品种列表

Showing 55 of 55 rows	谷物产量指数 (指数)	谷物产量 (百千克/公顷)	淀粉 (干物质%)	Yield 产量			Diseases (Observation Plots) 疾病 (观察样地)			Cultivation (Observation Plots) 栽培 (观察样地)		
	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)	
	↑	↑	↑	比重, 被测品种 (干 克/百升)	干物质中的粗蛋白质, 被测品 种 (%)	霉菌率 (%)	壳针孢率 (%)	黄锈病率 (%)	成熟日	秸秆长度 (厘米)	倒伏 (0-10分)	
	☞	☞	☞	☞	☞	☞	☞	☞	☞	☞	☞	
Year	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	
LSD	3.3	3.19	0.61	1.36	0.25	-	-	-	-	-	-	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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 丹麦平均产量趋势排名前20的品种

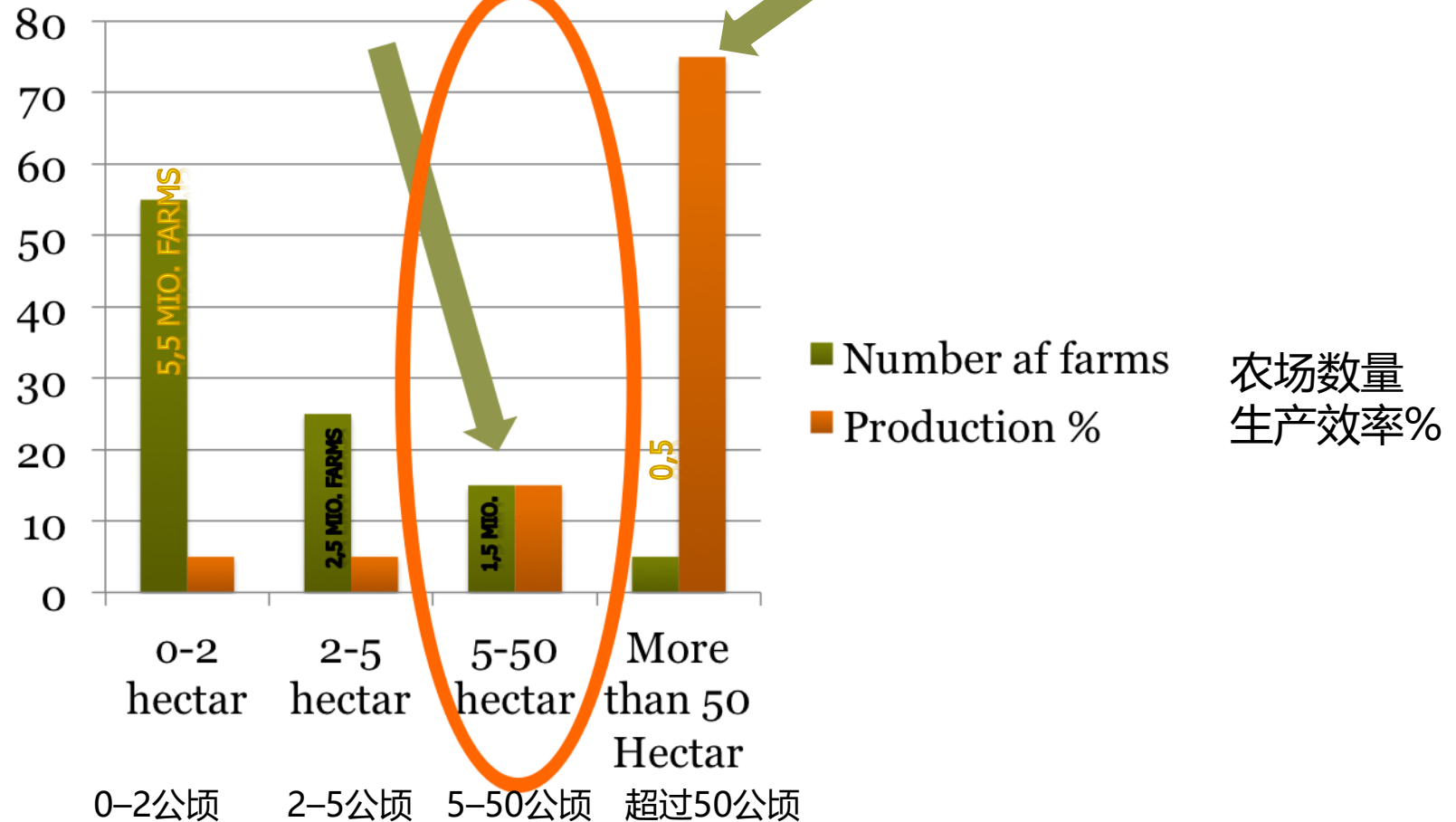
Top variety in 2011-2016
2011-2016年排名靠前品种



European Farms and their production 欧洲农场及其产量

HIGH TECH PRODUCTION FARMERS
高科技型农户

FAMILY TRADITIONAL FARMERS
传统家庭农户



Family Farmers are many thing 家庭农户有很多特点

- Like Modern high tech farmers 与现代高科技农户有类似之处
- Old traditional farmer like generations 老年传统农户常几代人务农
- Part-time farming of distress 一半为谋生而务农
- Part-time farming for fun 一半为乐趣而务农
- Neighbour manage the land as his own, but still my farm 尽管土地属于邻户，但农场还是我的
- More or less operating jointly with other farmers 多多少少会与其他农户联合经营
- Storytelling agriculture 讲故事型农业
- “Urban new farmers back to basic” “城市新农户回归本源”



Breeders rights, farmers rights and so what? 育种者权利、农户权利，那又如何？

- Can breeders forcing farmers with rules ?
- 育种者能用规则迫使农户服从吗？
- Do farmers know about the rules?
- 农户清楚规则吗？
- Is it a good idea to take farmers in court?
- 将农户告上法庭，这样好吗？

• No! 不!



COPA/CEGECA is a supporter of CPVR COPA/CEGECA是欧盟植物品种权利的支持者

- We need rules for protection
- 我们需要规则来保护权利
- We need Breeders exception
- 我们需要育种者例外规定
- Without that, we will have no innovation.
- 否则，我们将无以创新
- We need better varieties every year in every corner of EU
- 欧盟各地每年都需要更好的品种



Thank you 谢谢

