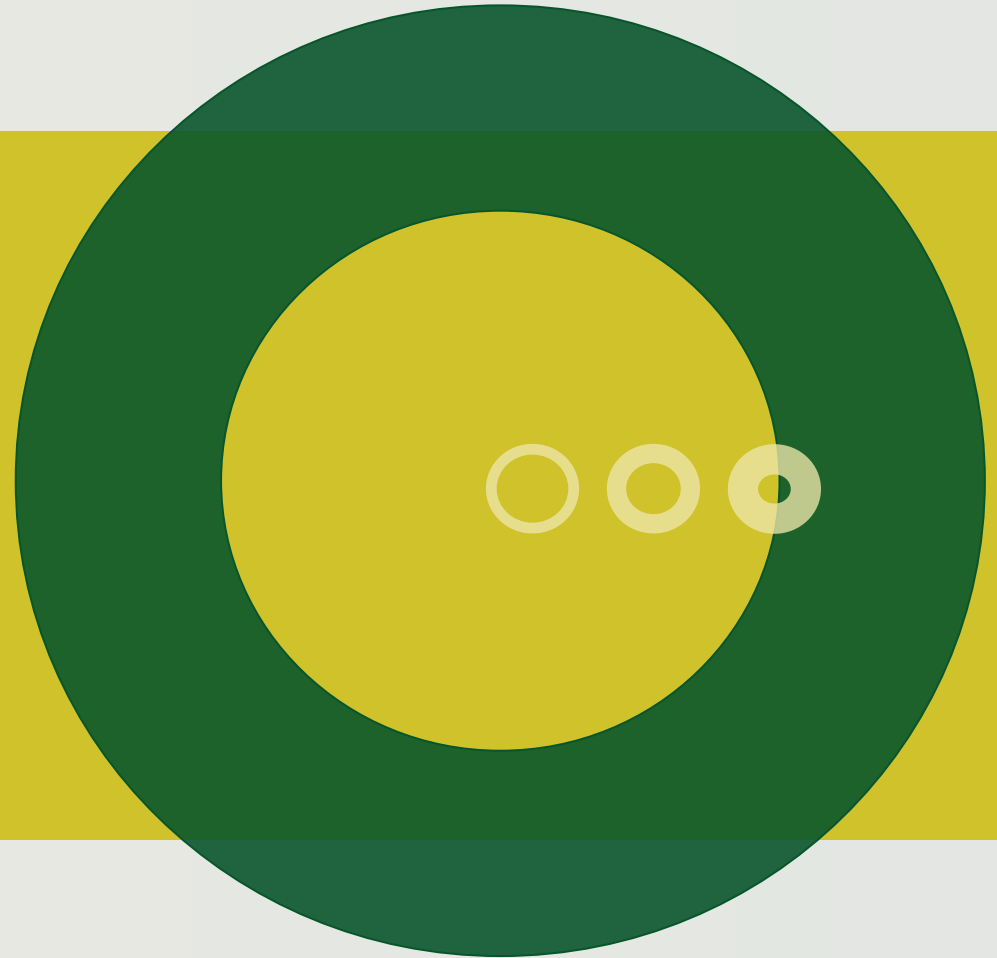


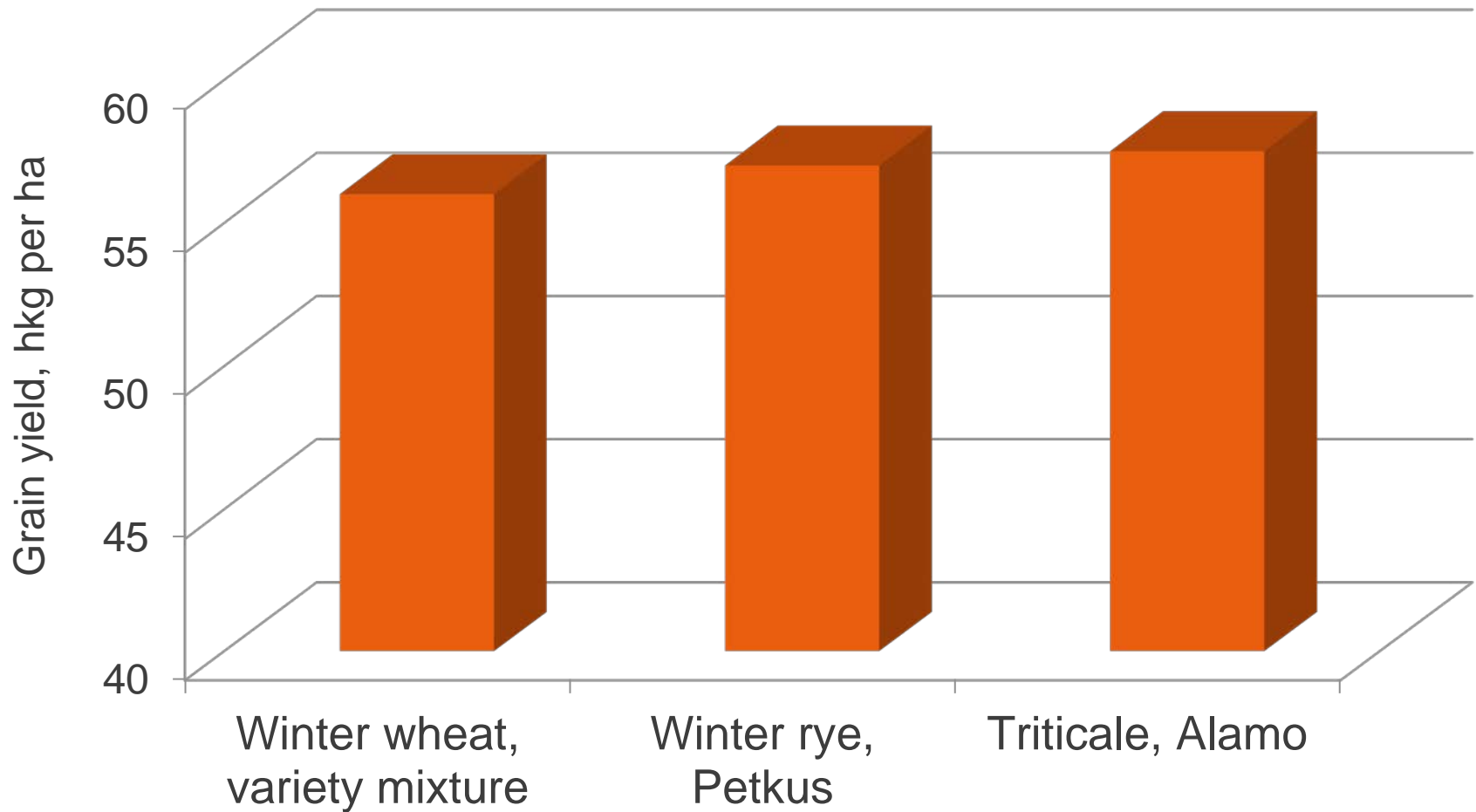


Rye Cultivation in Competition – Evaluation of a Comparative trial and Conclusions

Morten Haastrup
Specialist, cereals



10 trials, 1994



Why new comparative trials?

- To compare new high yielding varieties
- To compare yield AND quality for pig feed in autumn sown cereals





Treatments and prices

- Seed rates:
 - 325 plants per m² in winter wheat and winter barley
 - 300 plants per m² in triticale
 - 200 plants per m² in winter rye
- Nitrogen amount in species determined by measurements of mineral nitrogen in soil
- Decisions on crop protection based on assessments in each field
- Grain price:
 - 18 euro per hkg in wheat, barley and triticale
 - 16 euro per hkg in rye

8 trials on sandy soil, 2009-2011, pre-crop winter wheat

	Grain yield, hkg per hectare ¹⁾	Value, euro per ha (gross yield)	Costs of cultivation, euro per ha	Net yield, euro per ha
Winter wheat, <i>Hereford / Frument</i>	68.3	1239	364	875
Winter rye, <i>Palazzo / Evolo</i>	80.9	1305	325	969
Winter barley, <i>Matros / Zephyr</i>	62.6	1136	320	816
Triticale, <i>Dinaro / Cando</i>	67.6	1227	299	927

¹⁾ LSD = 6,0

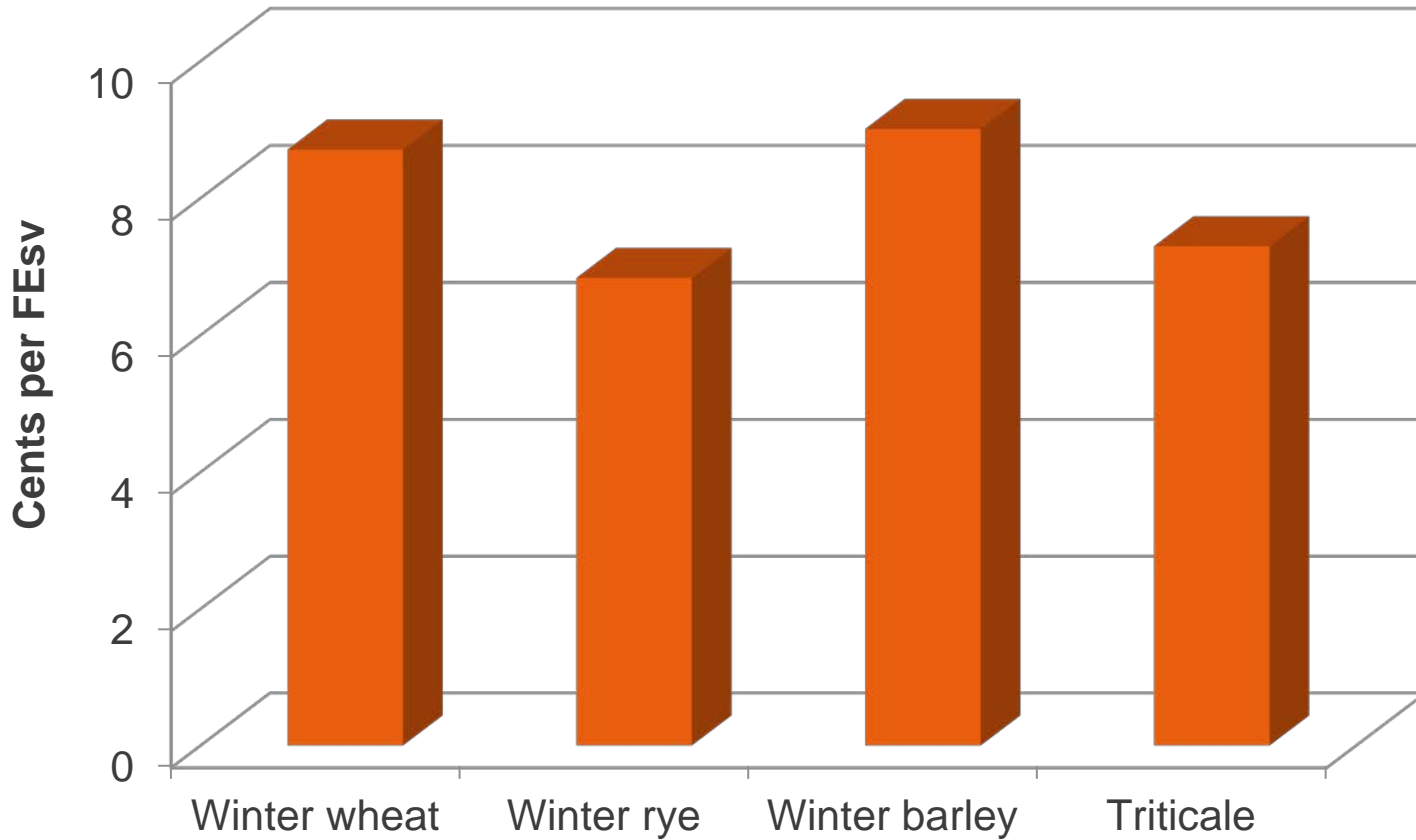
8 trials on sandy soil, 2009-2011, pre-crop winter wheat

	FEsv per hkg	FEso per hkg	Grain yield, hkg per hectare	FEsv per ha	FEso per ha
Winter wheat, <i>Hereford / Frument</i>	115.2	113.2	68.3	7868	7732
Winter rye, <i>Palazzo / Evolo</i>	111.0	109.9	80.9	8980	8891
Winter barley, <i>Matros / Zephyr</i>	107.0	106.5	62.6	6698	6667
Triticale, <i>Dinaro / Cando</i>	113.4	111.7	67.6	7666	7551

FEsv = feed unit, growing pigs

FEso = feed unit, sows

Cost per produced feed unit for growing pigs



8 trials on sandy soil, 2009-2011, pre-crop winter wheat

3 trials on loamy soil, 2009-2011, pre-crop winter wheat

	Grain yield, hkg per hectare ¹⁾	Value, euro per ha (gross yield)	Costs of cultivation, euro per ha	Net yield, euro per ha
Winter wheat, <i>Hereford / Frument</i>	87.4	1584	416	1168
Winter rye, <i>Palazzo / Evolo</i>	91.6	1475	348	1137
Winter barley, <i>Matros / Zephyr</i>	75.1	1361	352	1009
Triticale, <i>Dinaro / Cando</i>	85.0	1540	359	1182

¹⁾ LSD = ns

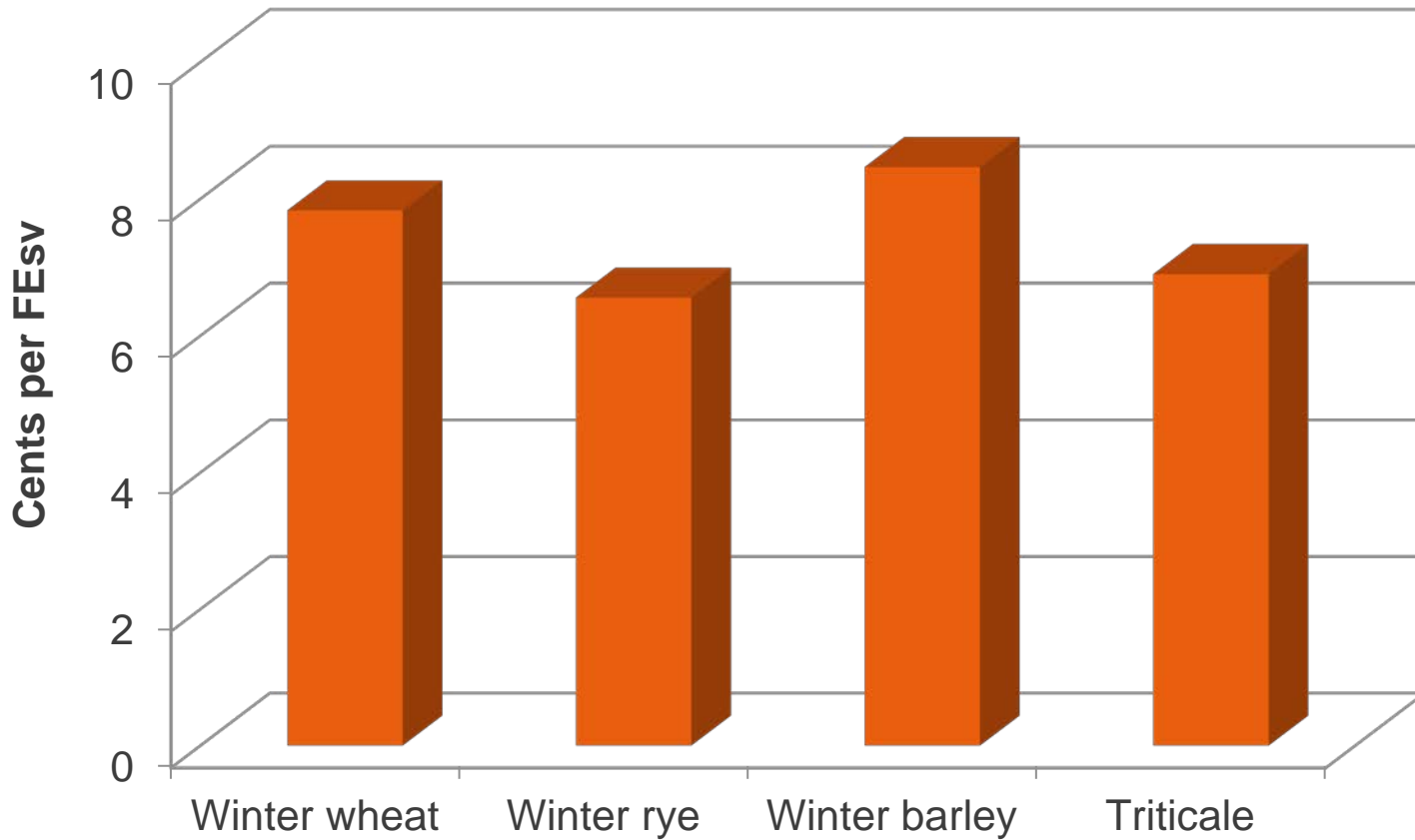
3 trials on loamy soil, 2009-2011, pre-crop winter wheat

	FEsv per hkg	FEso per hkg	Grain yield, hkg per hectare	FEsv per ha	FEso per ha
Winter wheat, <i>Hereford / Frument</i>	115.4	113.4	87.4	10086	9911
Winter rye, <i>Palazzo / Evolo</i>	109.9	109.1	91.6	10067	9994
Winter barley, <i>Matros / Zephyr</i>	104.4	104.8	75.1	7840	7870
Triticale, <i>Dinaro / Cando</i>	114.5	112.8	85.0	9733	9588

FEsv = feed unit, growing pigs

FEso = feed unit, sows

Cost per produced feed unit for growing pigs



3 trials on loamy soil, 2009-2011, pre-crop winter wheat

Conclusions(I)

- Winter rye gave the highest net yield on sandy soils
- Winter rye gave the highest yield of feed units on the sandy soils
- The lowest cost per produced feed unit was obtained in winter rye
- Triticale and winter wheat gave the same net yield on loamy soils and winter rye only 30-40 euro less
- Winter rye can increase self-supply level for farms on sandy soils

Conclusions (II)

- The potential in winter rye must be evaluated on a farm scale
- It is very important, that the rye performs well in the feed mixtures
- And that the price of rye is competitive
- Typical price difference between wheat and rye in current feed optimizations is 1.2 – 1.6 euro
- Winter rye will be competitive as pig feed on many farms