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What can be done with *agri benchmark* ? Selected Results for South African Cash Crop Farms

Presentation for BFAP Baseline Launch Conference 2010
Cape Town August 13th

Yelto Zimmer, Coordinator of *agri benchmark* Cash Crop

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Content

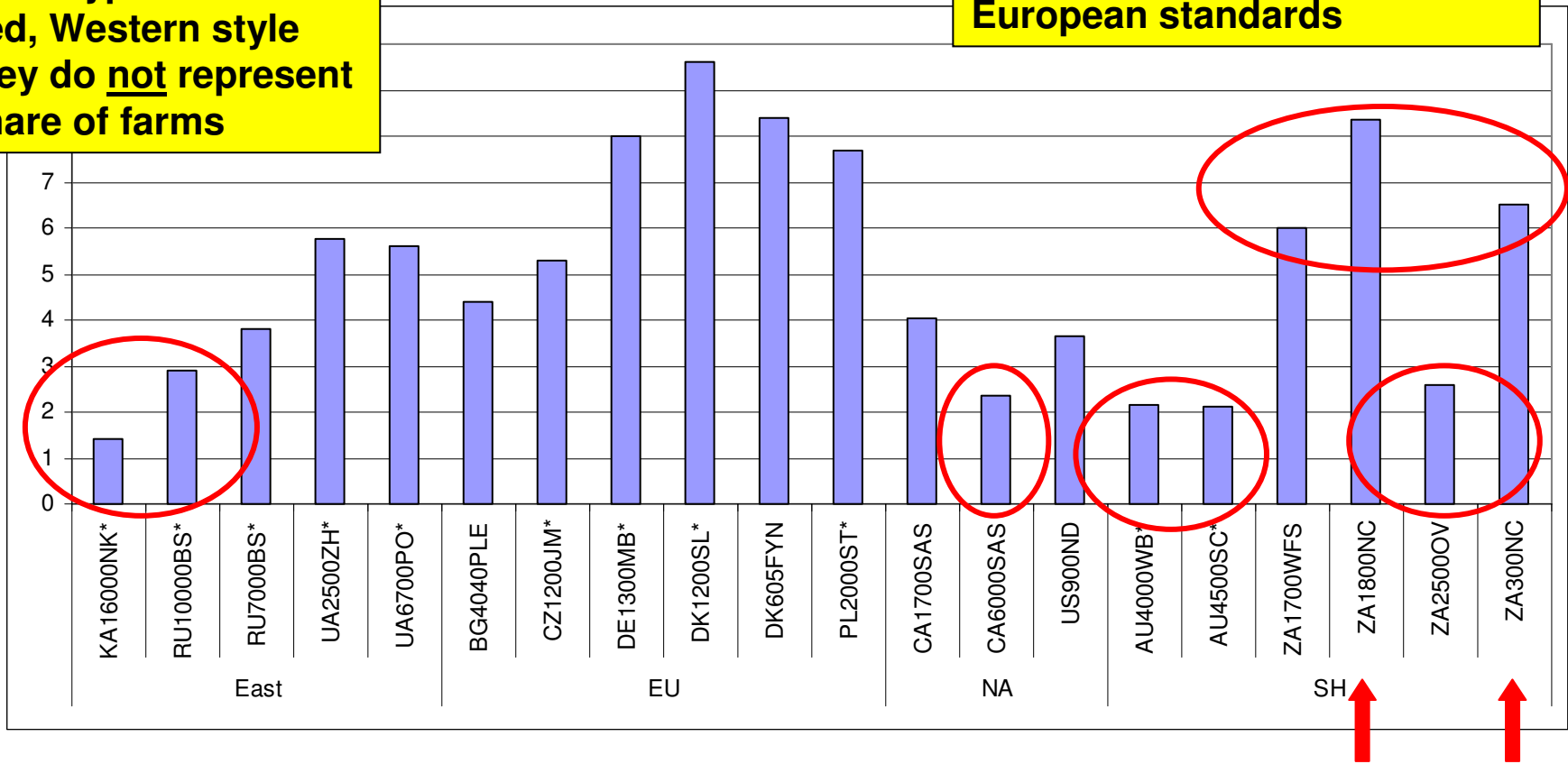
- 1. Economics of Wheat Production**
- 2. Farm Profitability**
- 3. Conclusions & Outlook**

Wheat Yields (t/ha)

Farms in Kazakhstan, Russia & Ukraine are typical modernized, Western style farms – they do not represent a major share of farms

ZA wheat production w/o irrigation is similar to Australia and Canada.

ZA wheat production under irrigation is similar to Central European standards



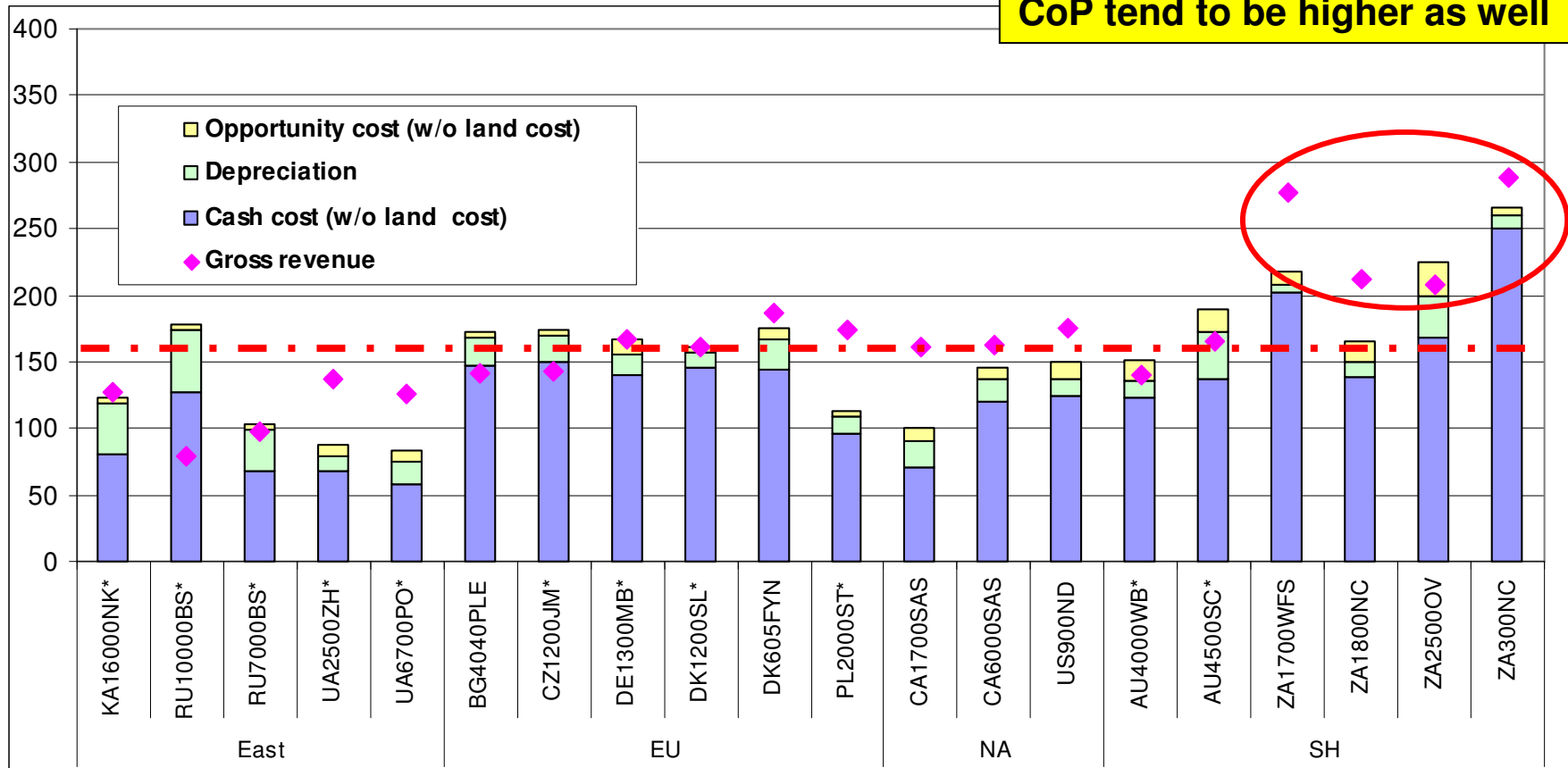
Irrigation



Total Cost (w/o land cost) and Gross Revenue Wheat (USD/t)

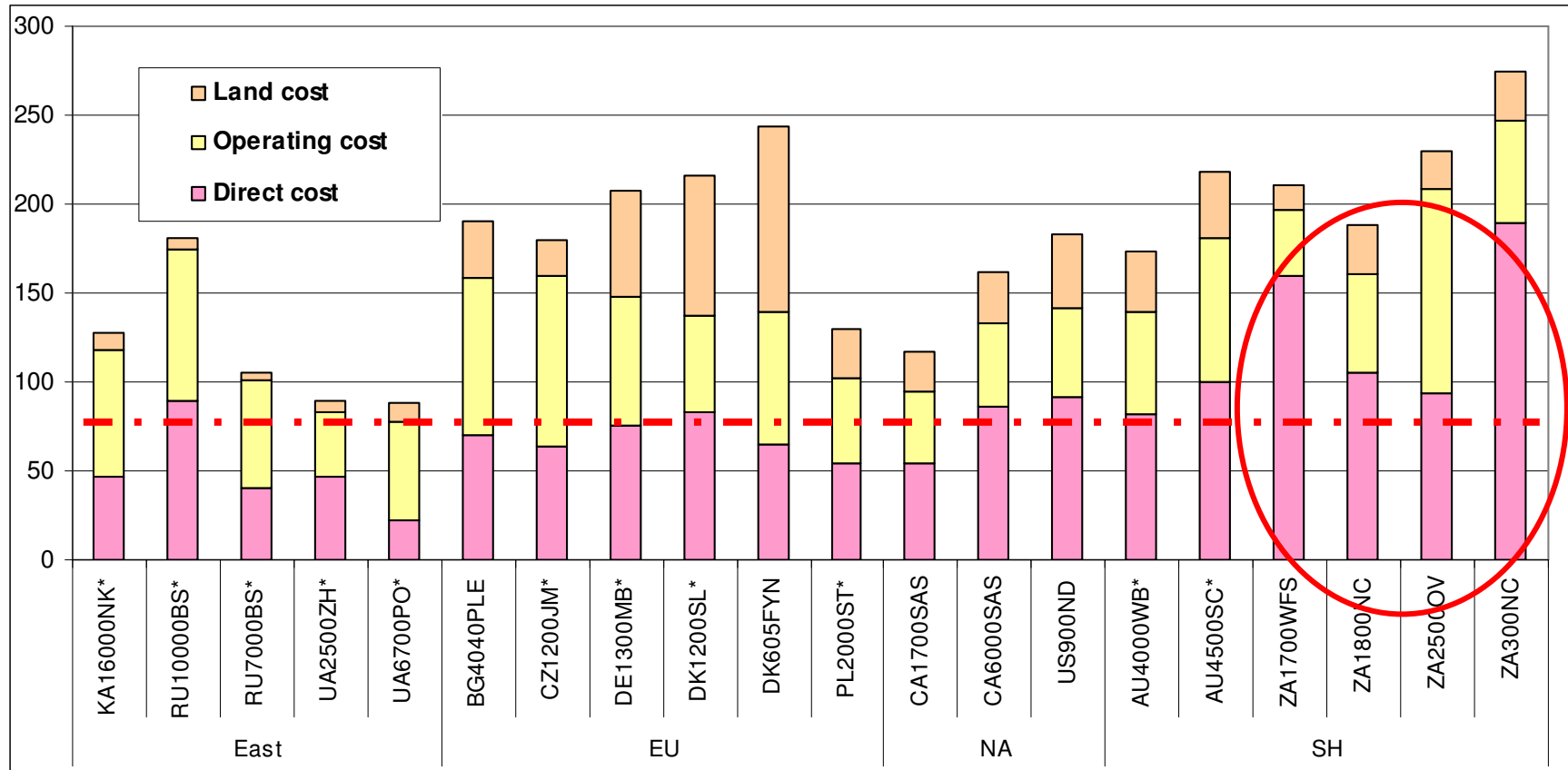
ZA wheat prices are well above those of all other major producers

CoP tend to be higher as well



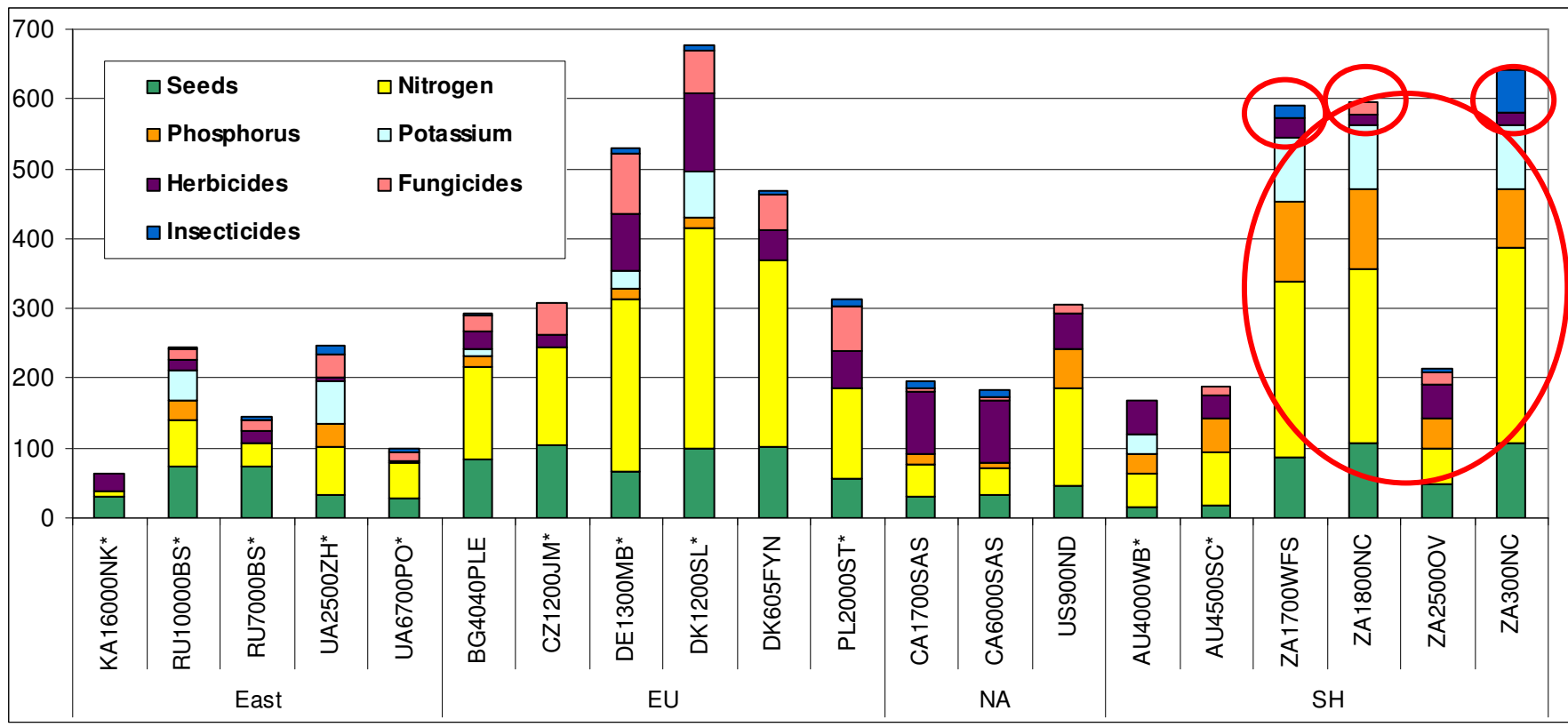
Key cost components Wheat

Globaly, 75 USD/t direct cost is a competitive value.
On a per-tonne basis, ZA farms are relatively high in direct cost.



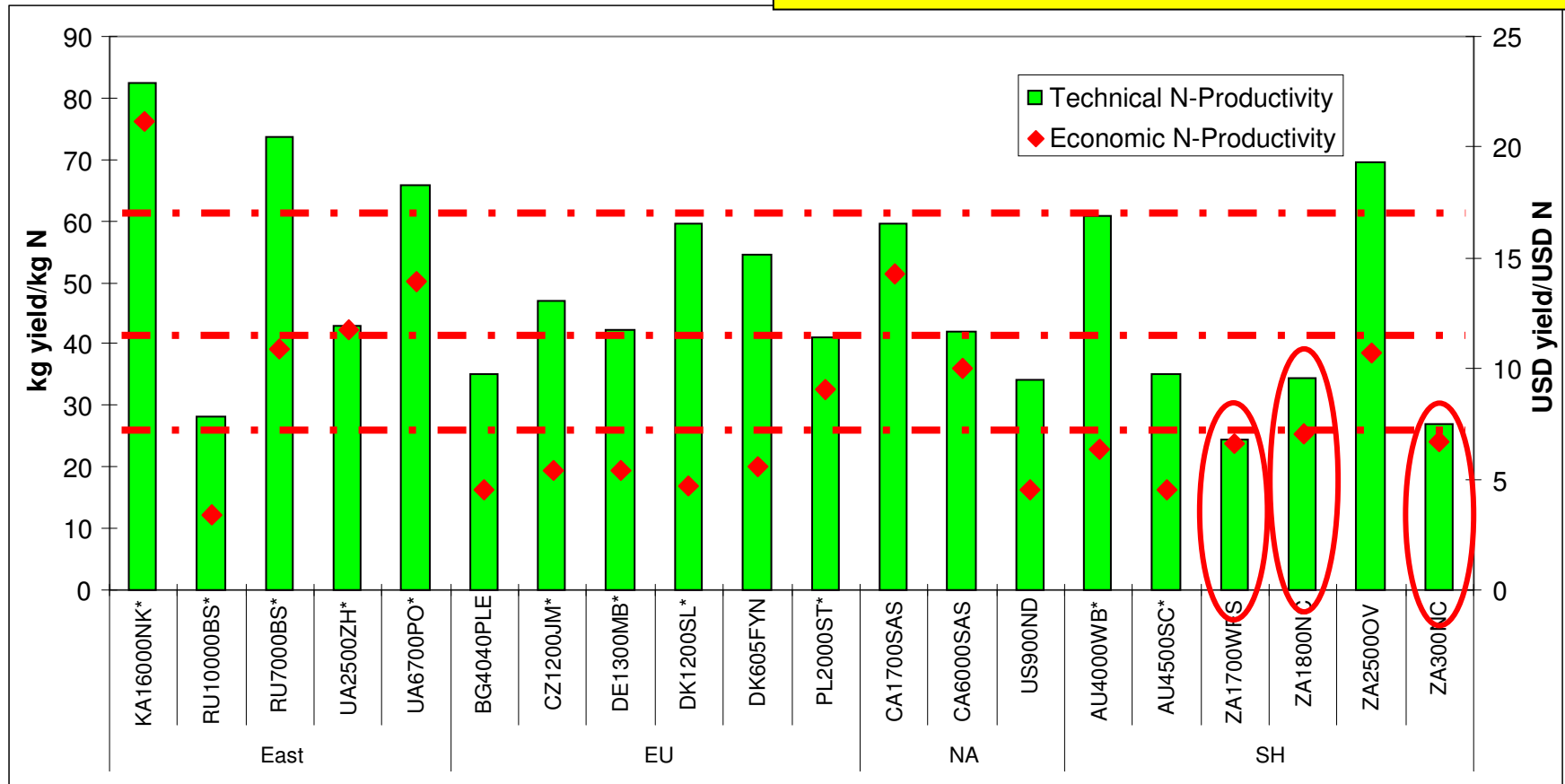
Direct Cost Wheat (USD/ha)

ZA irrigated wheat:
 * high N-input (240+ kg/ha)
 * high N-prices (1.3+ USD/kg)
 * high P-input ; high P-prices
 * low pp cost (low input)



Nitrogen Productivity in

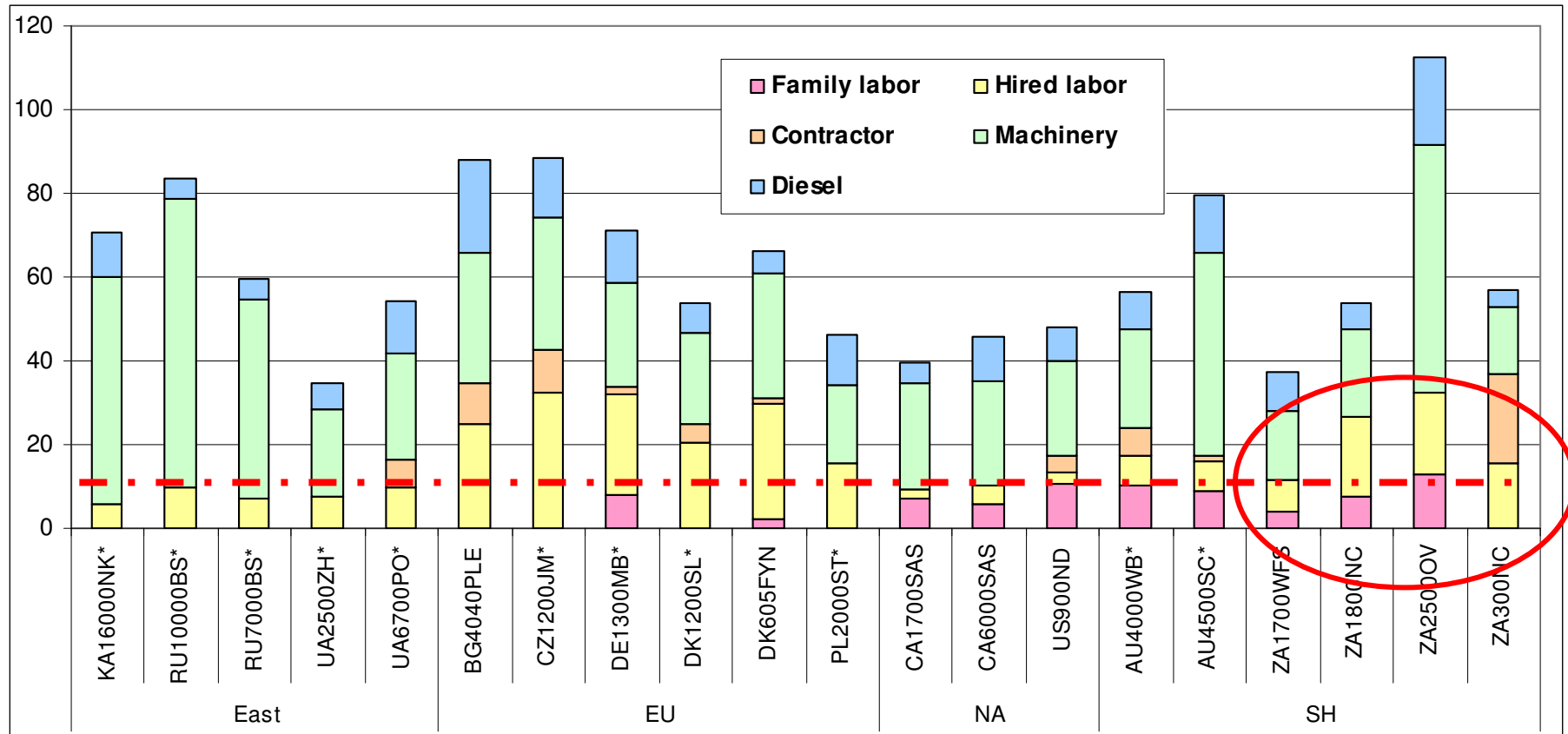
Technical N-productivity in irrigated wheat is below high yielding producers. Question: Impact of rotation – lack of break crops?



Economic N-productivity is much better – high wheat prices create an incentive for intensive N use?

Operating Cost Wheat (USD/t)

Given wage rates of 2 to 4 USD/h in ZA, labor cost seem to be high. AU and CA have to handle 20+ USD/h



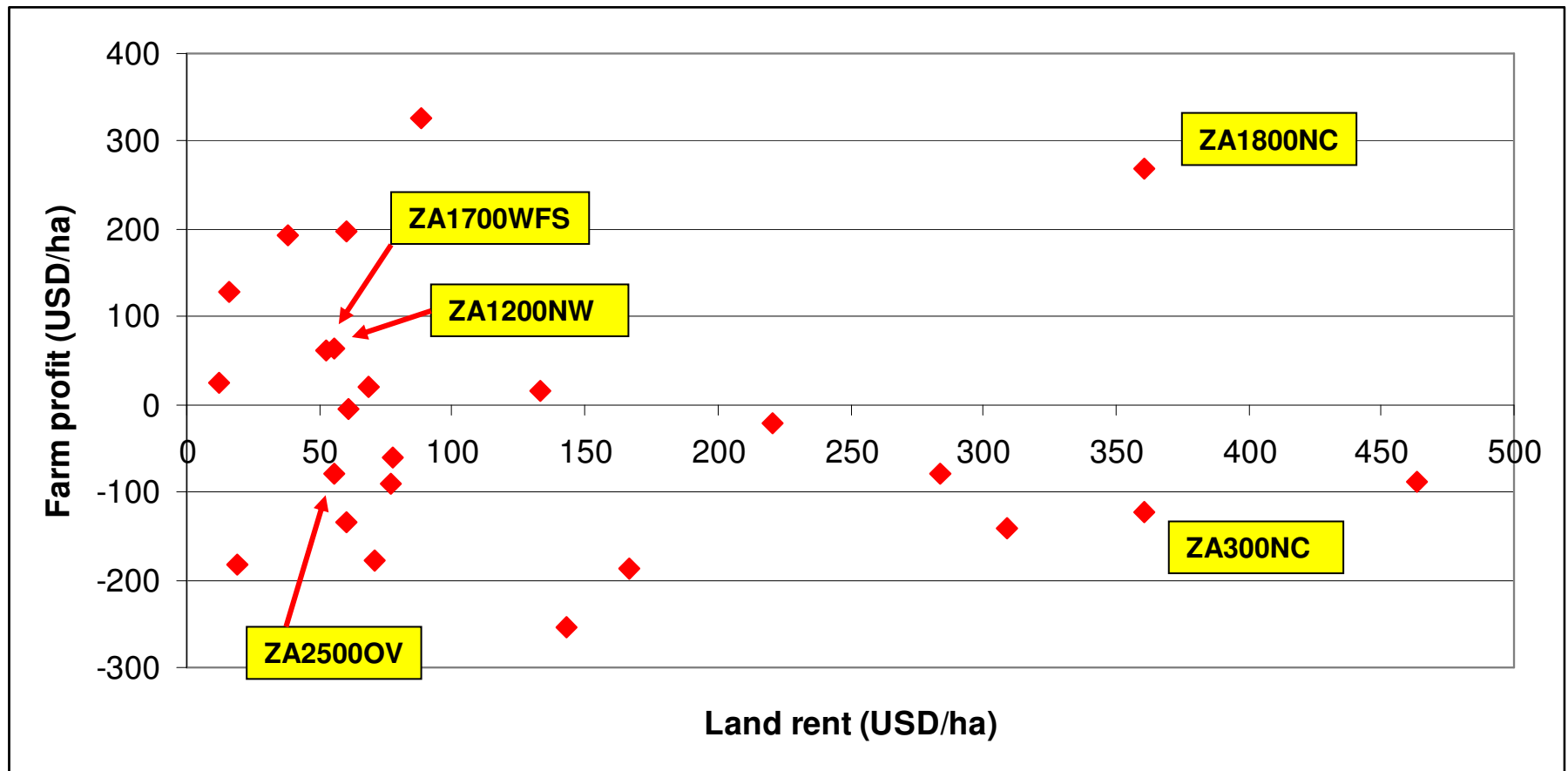
Reasons for high cost in Wheat

1. **Given high fertilizer and irrigation cost yields are relatively low in irrigated wheat.**
2. **Except for ZA2500OV no ZA farm has a break crop before wheat. Does that create a high pest pressure and cause lower yields?**
3. **Even though wage rates are very low – about 1/10 of what growers in AU or Canada have to pay - labor cost per tonne seem to be high.**
4. **Other ???**

Content

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Farm Profits and Land Cost (USD/ha)



Content

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Key Findings

1. **Key reasons for higher cost in ZA wheat production: High fertilizer input and high fertilizer prices plus irrigation cost.**
2. **In wheat ZA producers do not enjoy a price premium relative to global competitors.**
3. **ZA farms even with irrigation realize relatively low wheat yields. Question: Lack of rotation – High disease pressure?**
4. **There seems to be a disadvantage for ZA farmers with regard to fertilizer prices.**

General Conclusions re. ZA farms

1. All results only refer to farm gate perspective for 2009. For global markets logistics and transport matter a lot.
2. Given ZA's deficit in wheat and relatively high domestic prices: Is there room for expanding wheat production in ZA?
 - Changes in rotation?
 - Move to new areas?
3. Compared to other locations in the world, it seems to be possible to run very profitable farms in ZA.

***agri benchmark* Research Projects**

- 1. Perspectives for global wheat production**
- 2. Perspectives for European sugar beet production**
- 3. Perspectives for Ukrainian commodity production**
- 4. Potential for intensification in arable farming – A case study from Germany and Australia**
- 5. Perspectives for arable farming on marginal land in Germany**
- 6. Competitiveness of biofuels in the EU based on the EU legislation re. GHG balances**

Knowledge is our Business

Thank you for your interest

For more information visit www.agribenchmark.org



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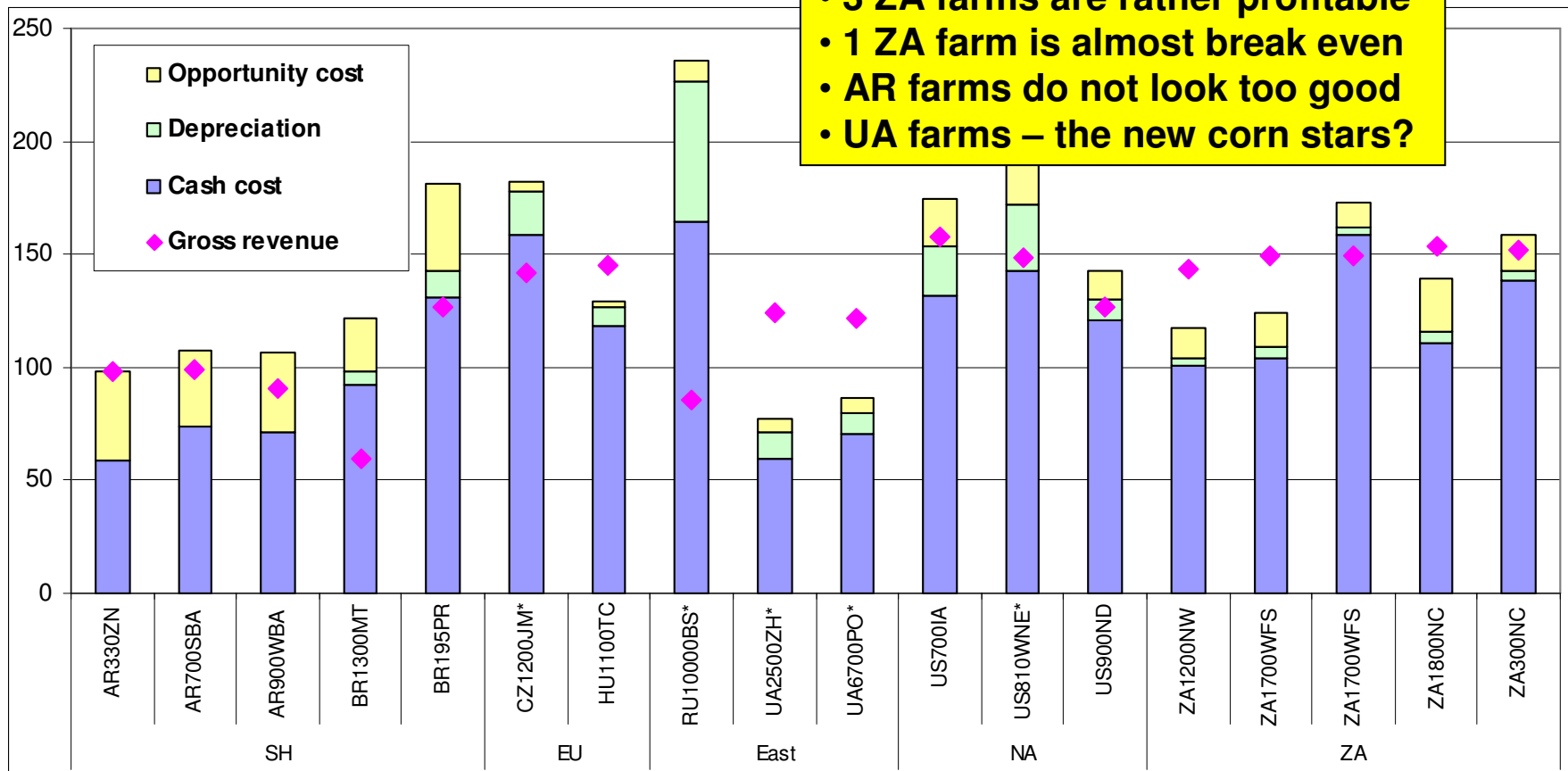
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Total Cost & Gross Revenue Corn (USD/t)

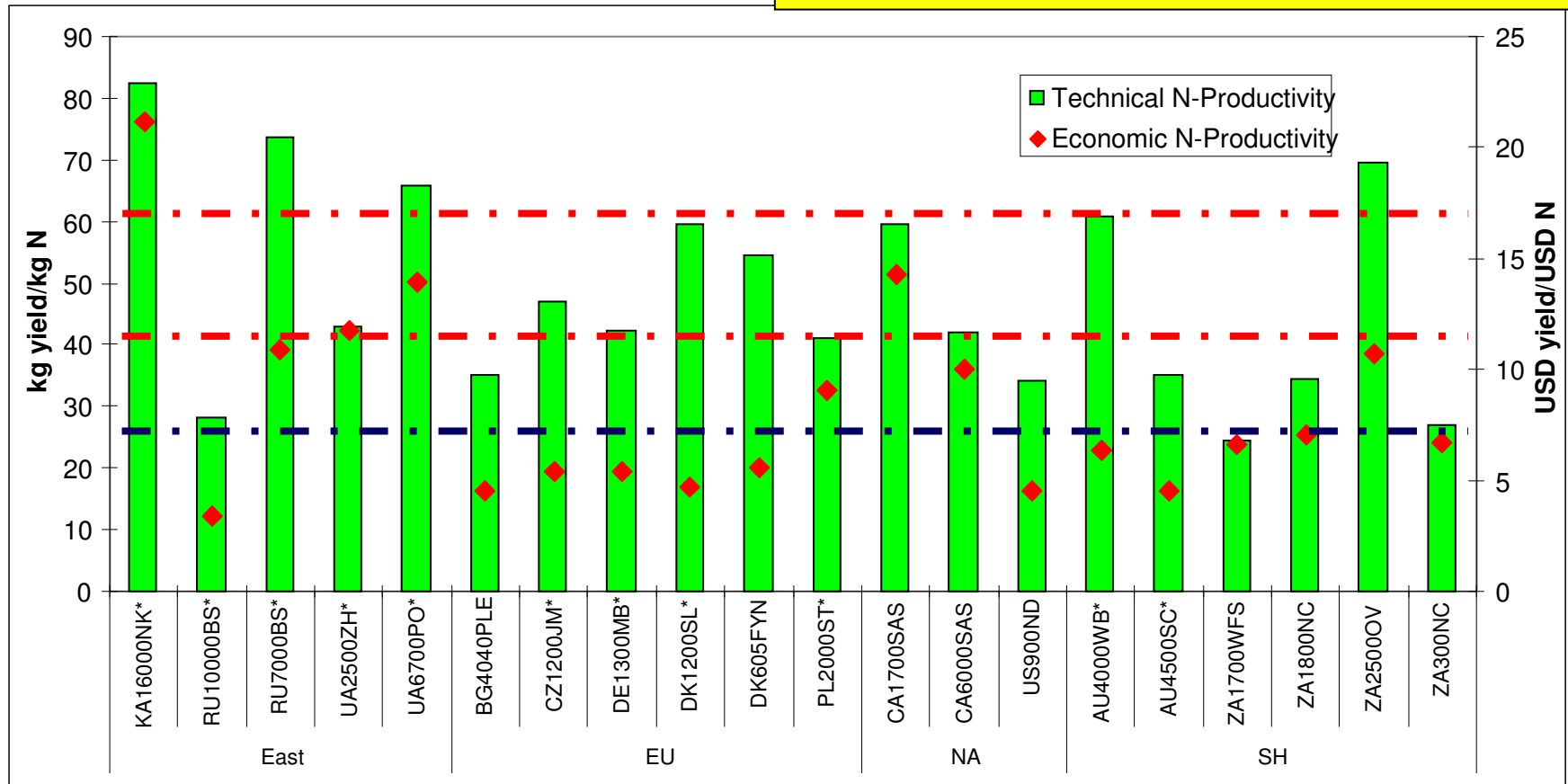
Including land cost:

- 3 ZA farms are rather profitable
- 1 ZA farm is almost break even
- AR farms do not look too good
- UA farms – the new corn stars?



Nitrogen Productivity

Technical N-productivity in irrigated wheat is below high yielding producers. Question: Impact of rotation – lack of break crops?

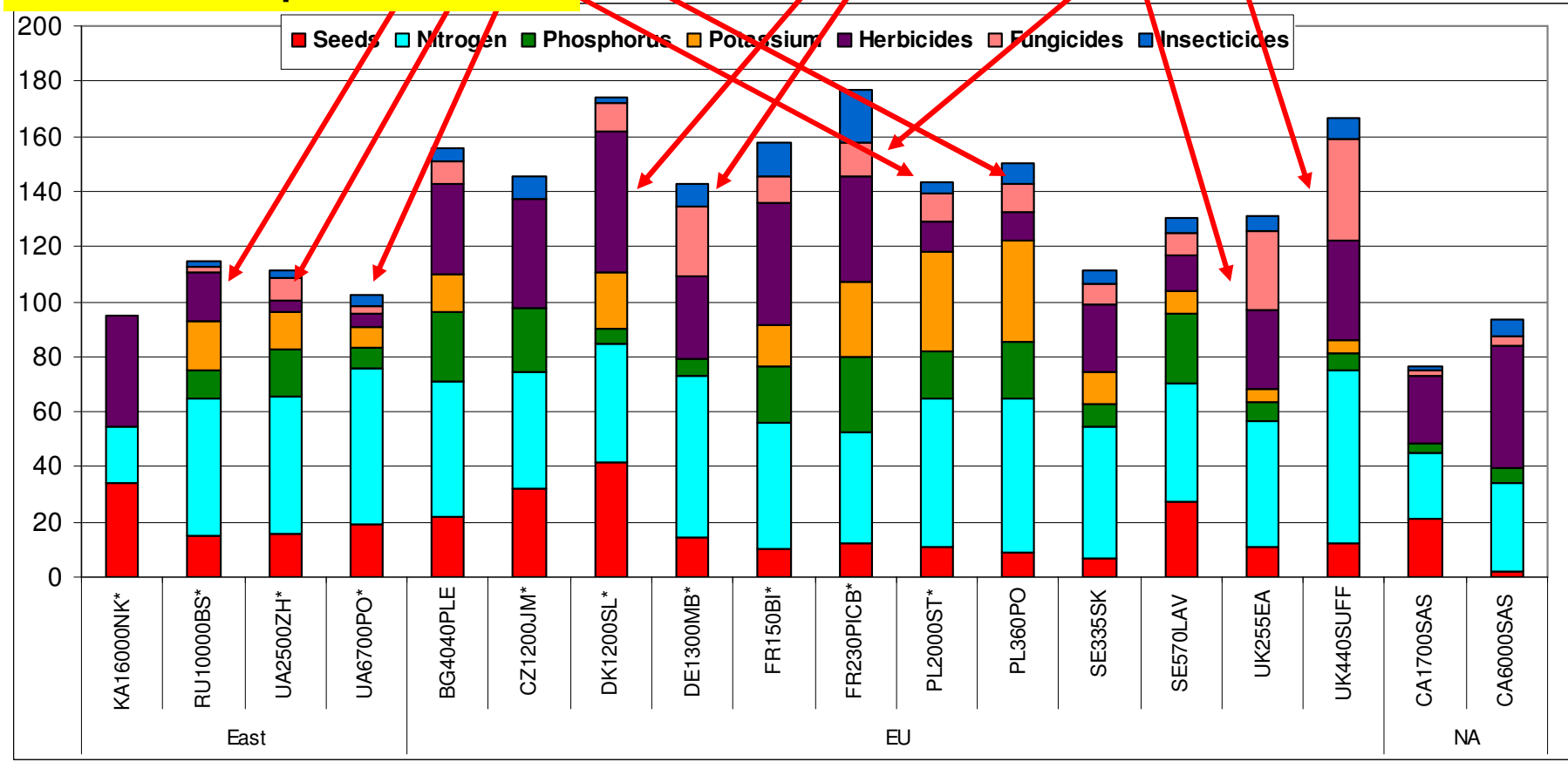


Economic N-productivity is much better – high wheat prices create an incentive for intensive N use?

Direct Cost in Rapeseed Production (USD/t)

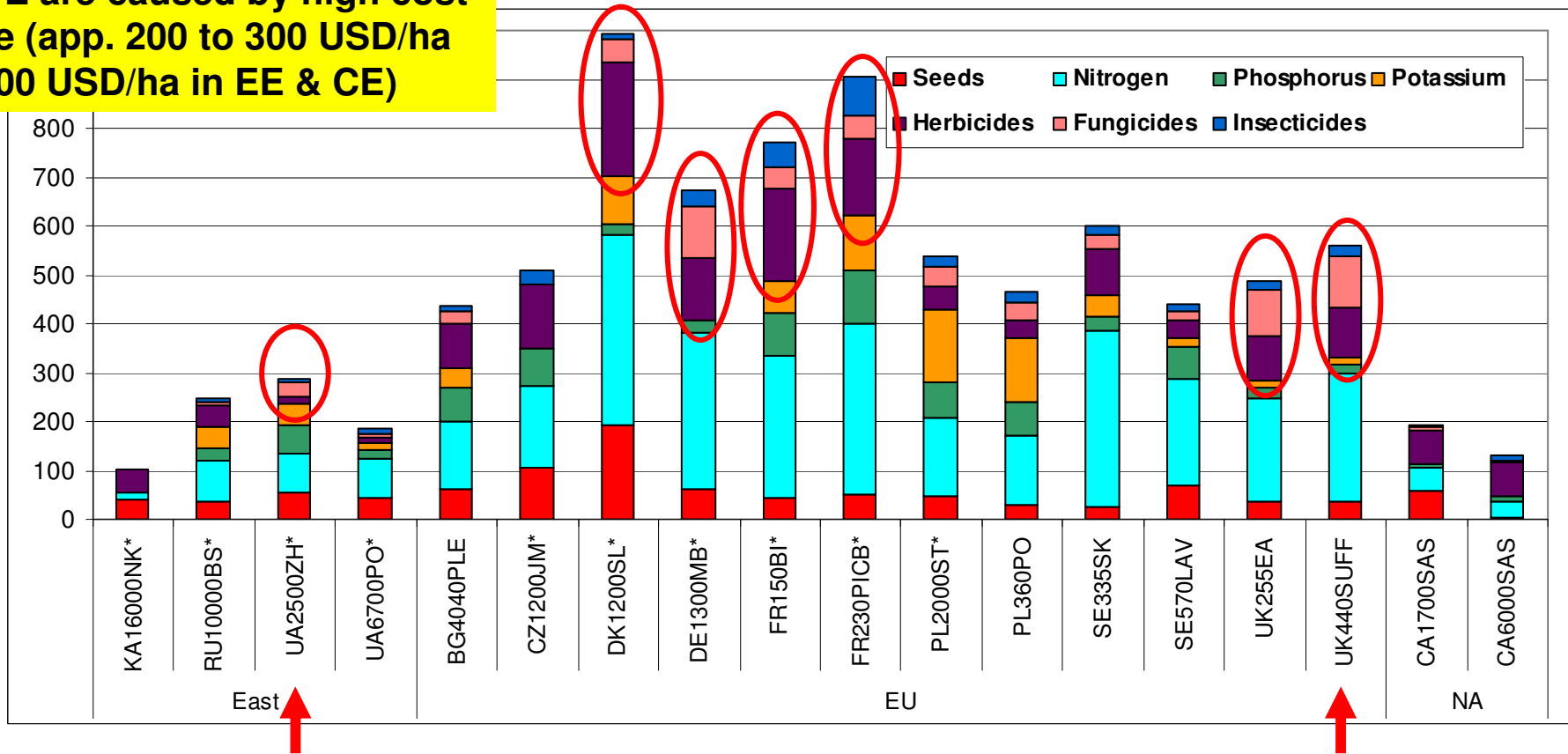
Rather low plant protection cost (app. 20 USD/t) in Eastern & Central Europe

Rather high plant protection cost (app. 60 USD/t) in Western Europe – Sweden is an exception



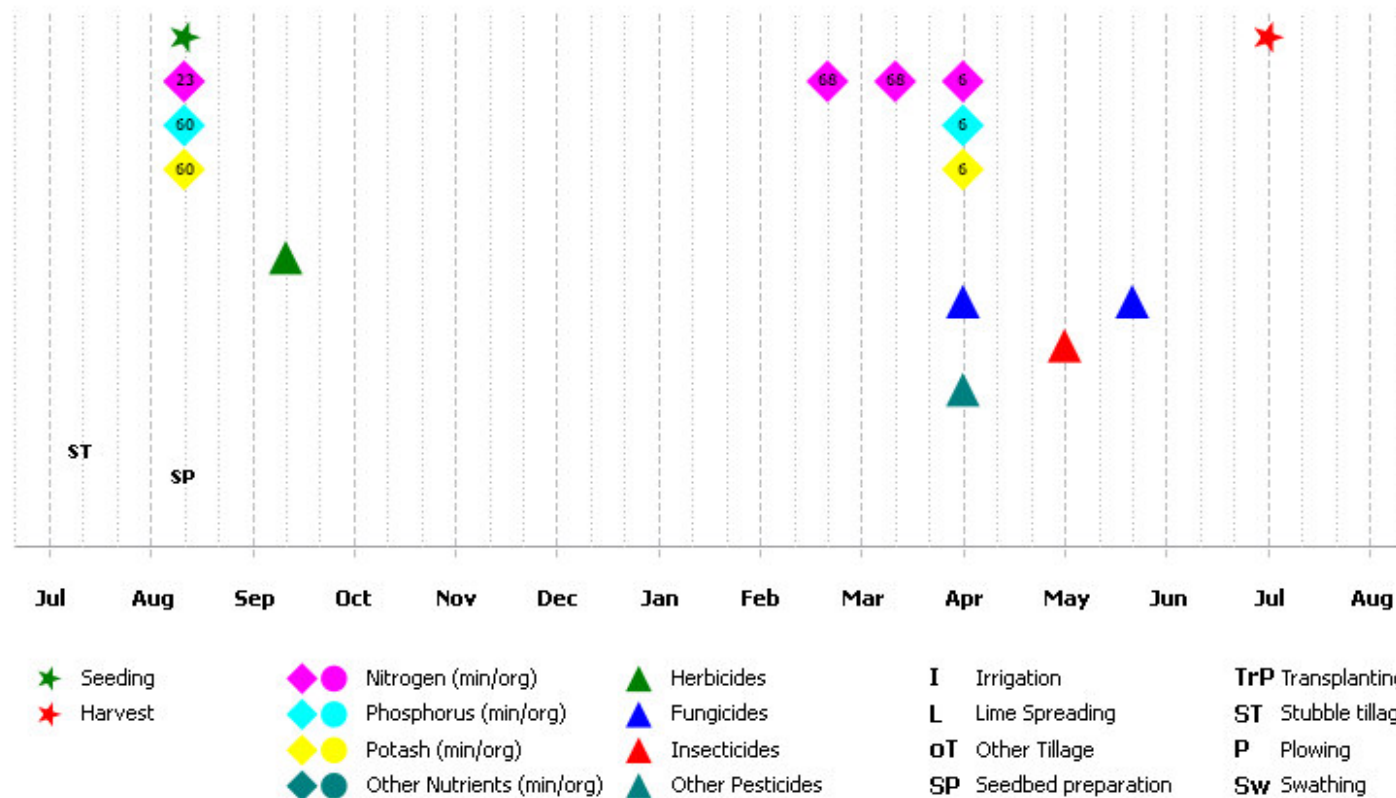
Direct Cost in Rapeseed Production (USD/ha)

High plant protection cost per tonne in WE are caused by high cost per hectare (app. 200 to 300 USD/ha vs. 50 to 100 USD/ha in EE & CE)



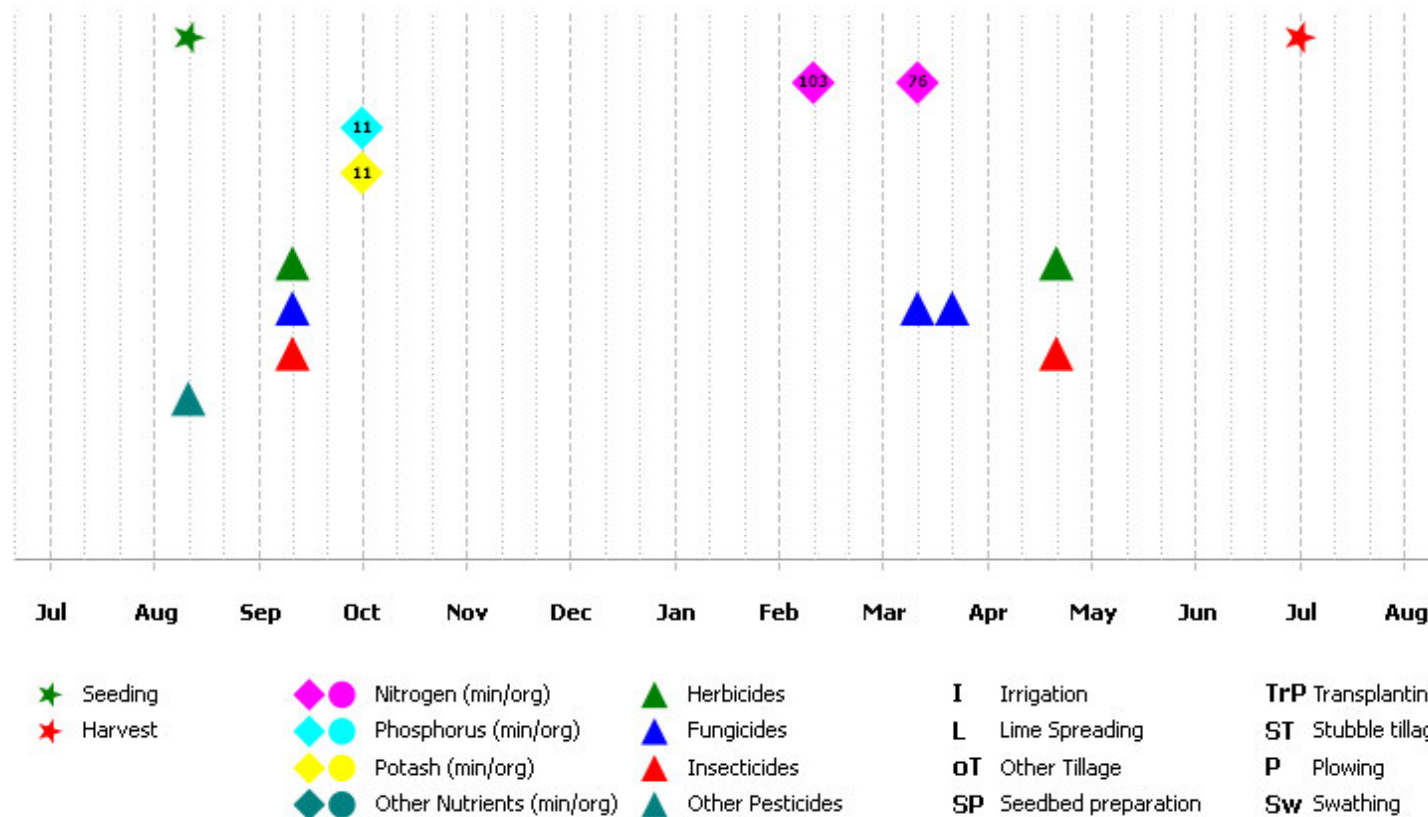
Production System Rapeseed at UA2500ZH

UA2500ZH* - winter rapeseed after winter wheat



Production System Rapeseed at UK440

UK440SUFF - winter rapeseed after winter wheat



Share of Oilseeds in Rotation of Farms

High share on RU10000 caused by rapeseed & sunflower. Remarkable differences compared to the national average for PL2000 (10%), BG4040 (33% - mostly sunflower), UA-farms (27%, mostly sunflower) and DE1300 (15%). UK farms are slightly above national average, which is 15%.

