

Global competitiveness analysis – Fundamentals for the supply of wheat and corn.

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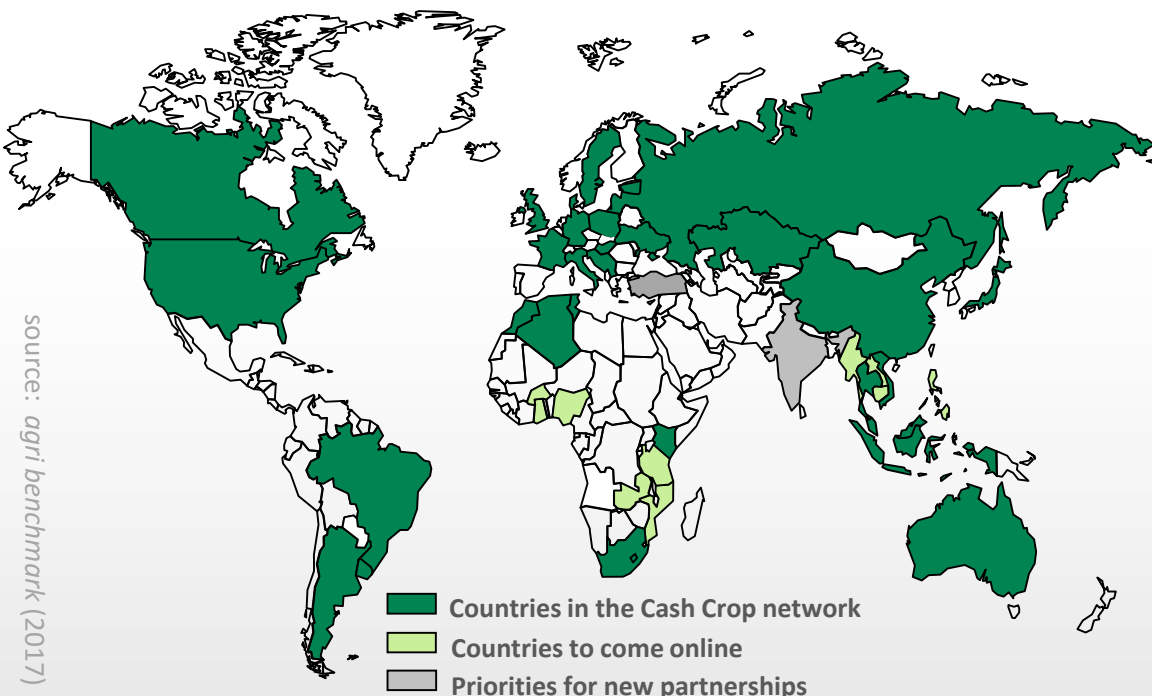
Agenda

1. Background
2. How profitable are wheat and corn production around the world? Who are the cost leaders?
3. Differences in production systems affecting corn supply
4. Perspectives for Argentinian wheat production
5. Summary

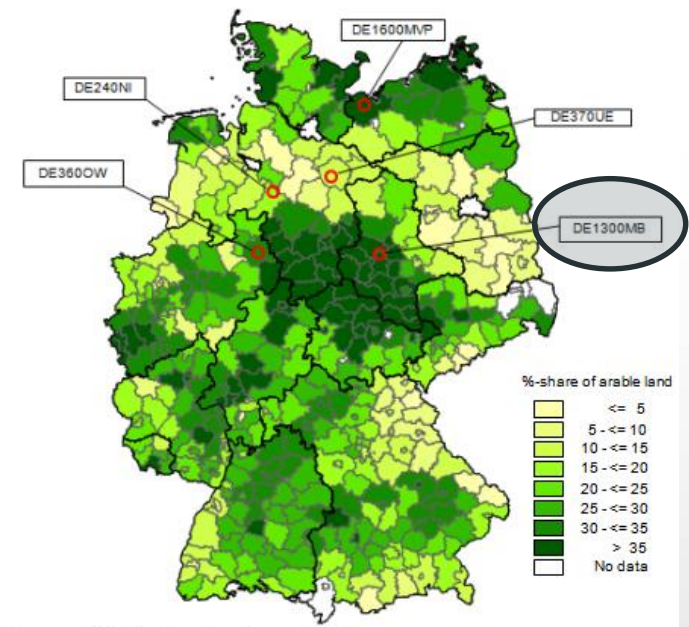
Background

Competitive advantage is a function of either providing comparable buyer value more efficiently than competitors (low cost), or performing activities at comparable cost but in unique ways that create more buyer value than competitors and, hence, command a premium price (differentiation) – (Porter, 1985)

agri benchmark coverage



country ha region
DE 1300 MB

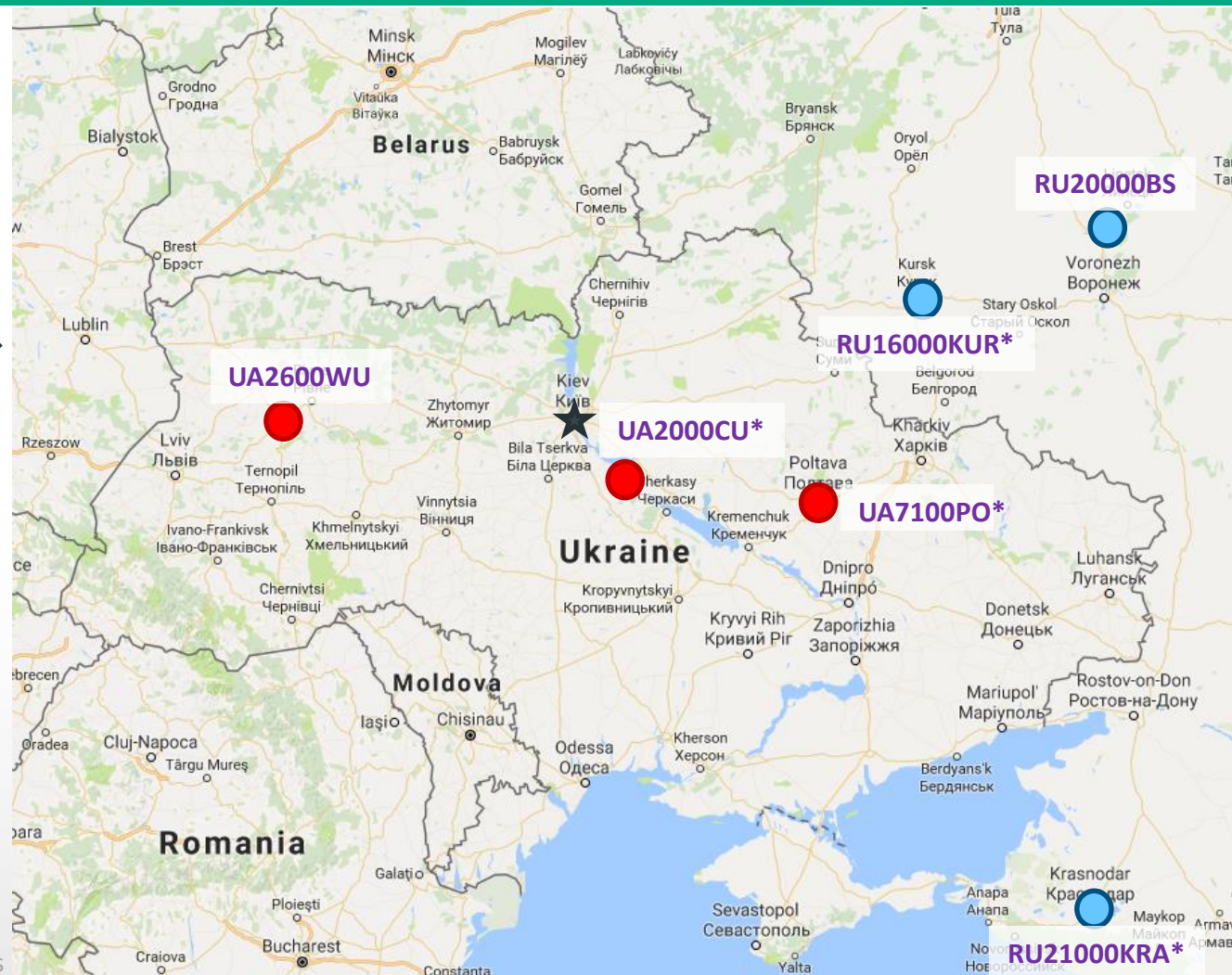


Source: Statistisches Bundesamt 2010

Location of the Russian and Ukrainian typ. farms



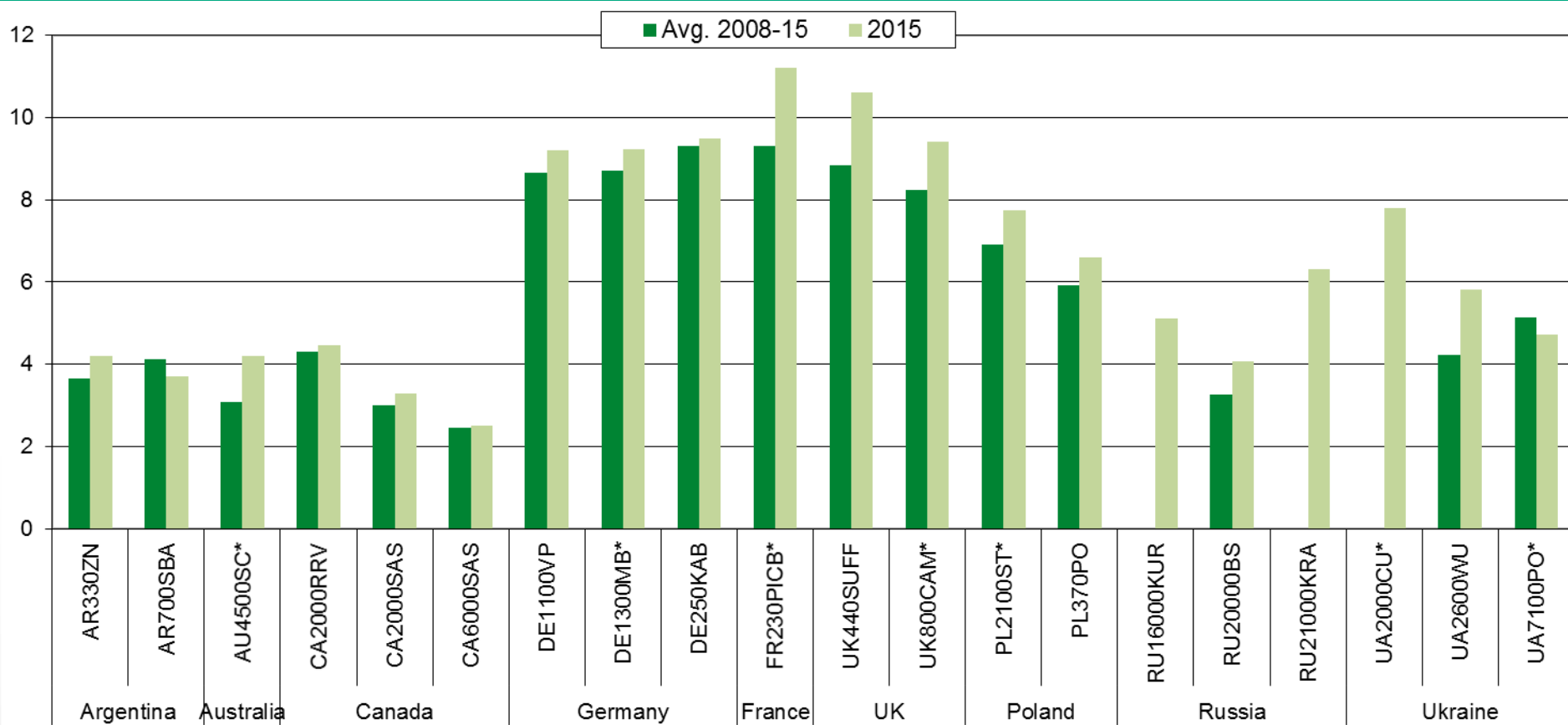
source: google maps



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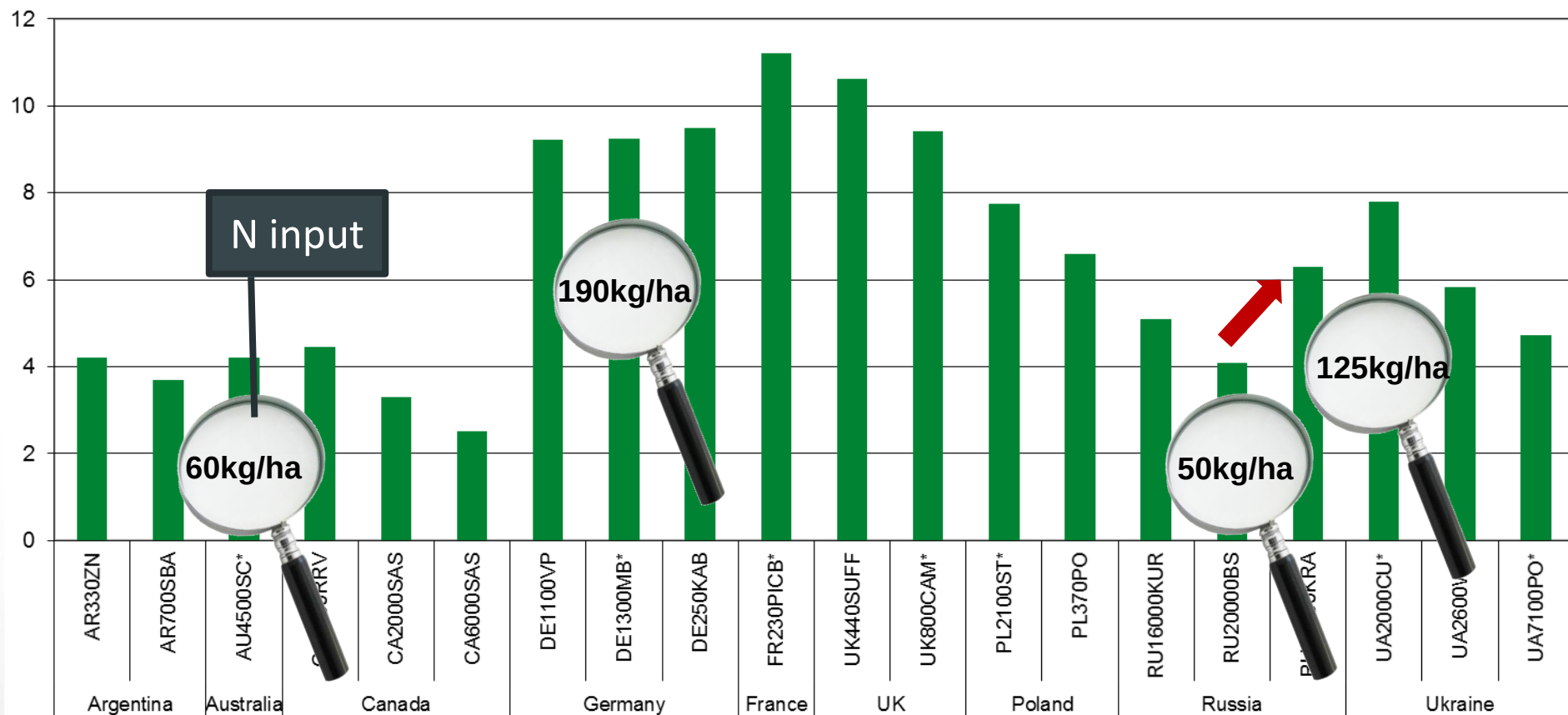
Wheat yields in t/ha



source: agri benchmark (2017)

- **Argentina, Australia and Canada with similar yields**
- **High yields in European countries– RU16000KUR and RU21000KRA data from 2015 onwards**

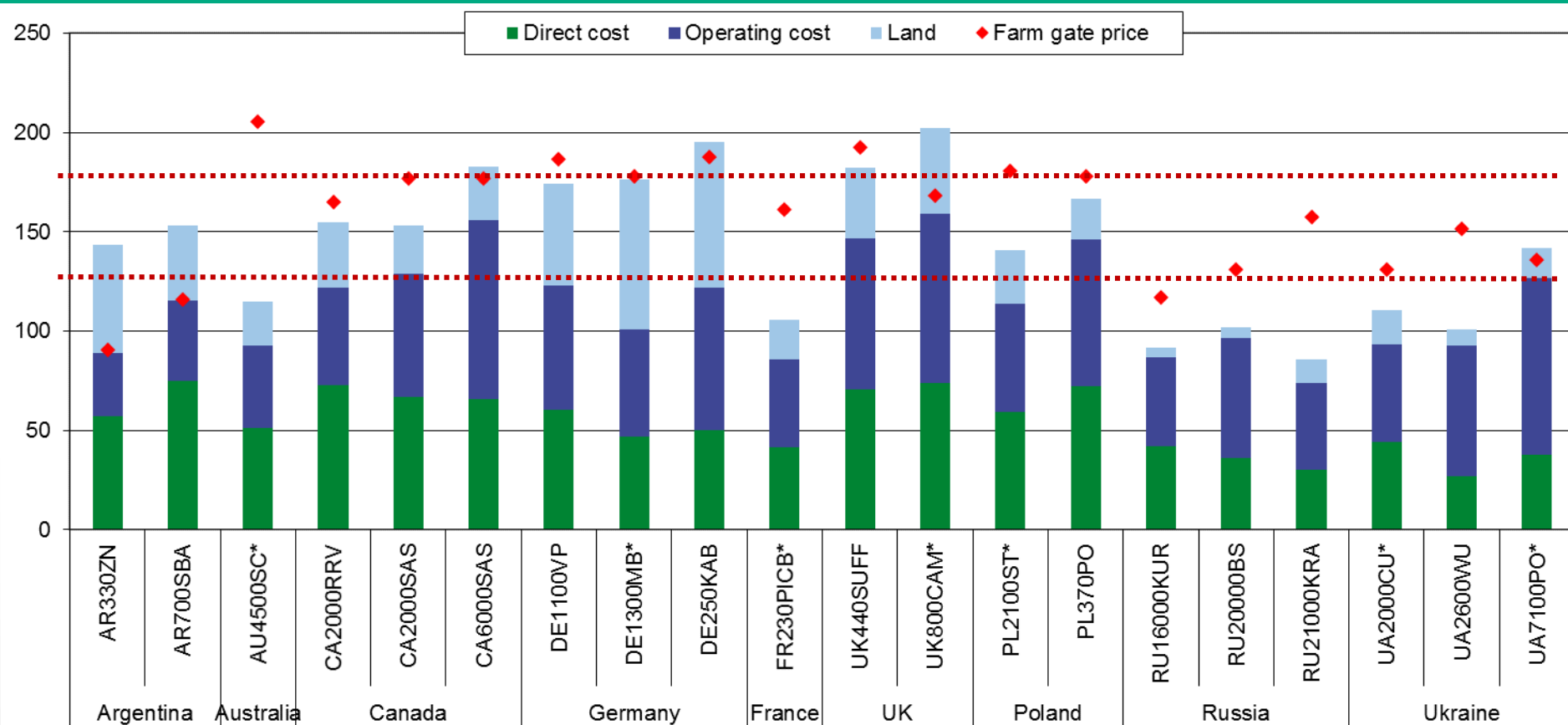
Wheat yields in t/ha (2015)



source: agri benchmark (2017)

- Strong differences in yields: production systems and input intensity
- High performing farms in UA and RU show their potential in wheat production

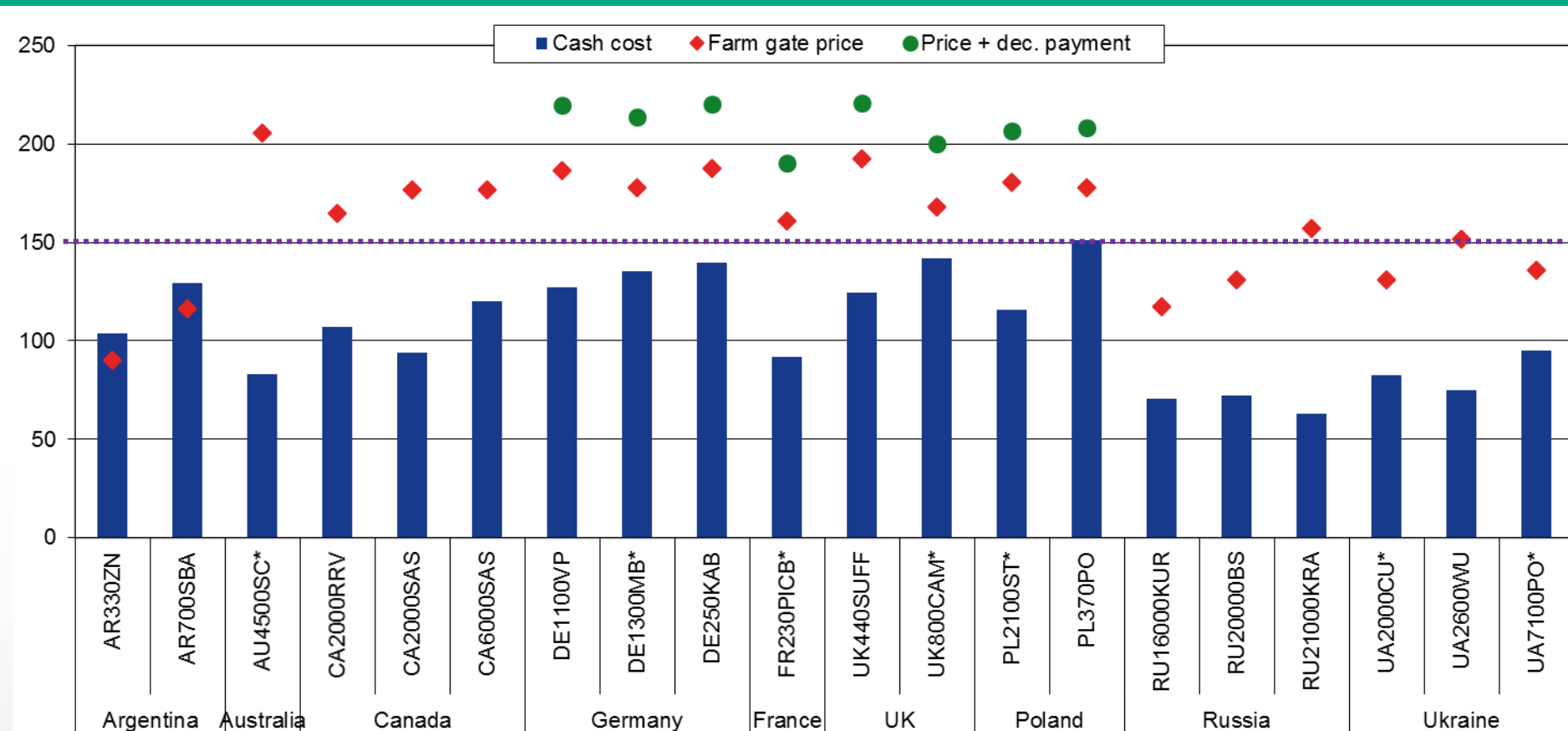
Wheat key costs and prices in USD/t (2015)



source: agri benchmark (2017)

- Most countries with **total cost around \$110 – \$200/t**
- RU and UA farms: **cost leaders** but facing lower farm gate prices (-\$50/t)

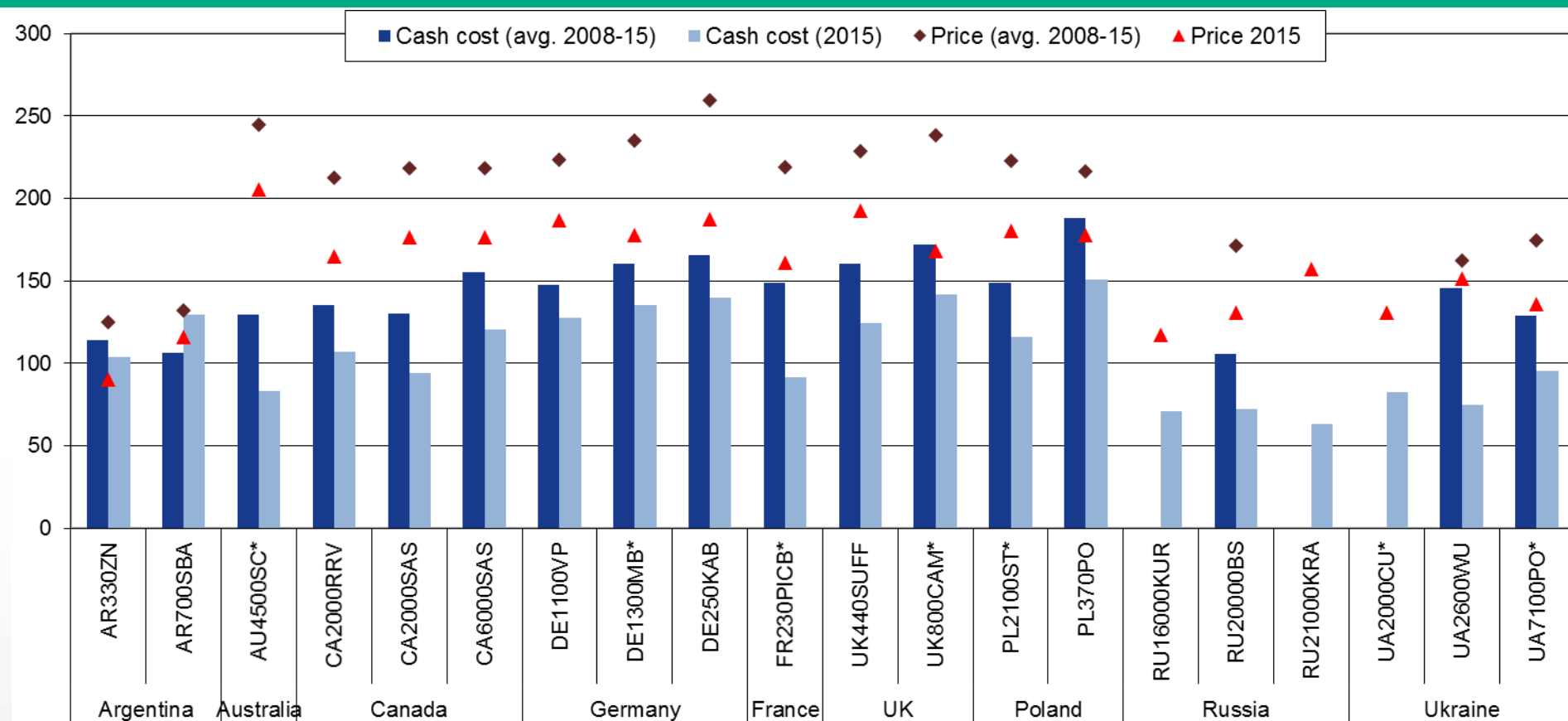
Wheat cash costs and revenues in USD/t (2015)



source: agri benchmark (2017)

- Short term all farms can produce wheat with less than \$150/t and some under \$100
- Direct payments increase the price gap between EU other countries (+\$30/t)

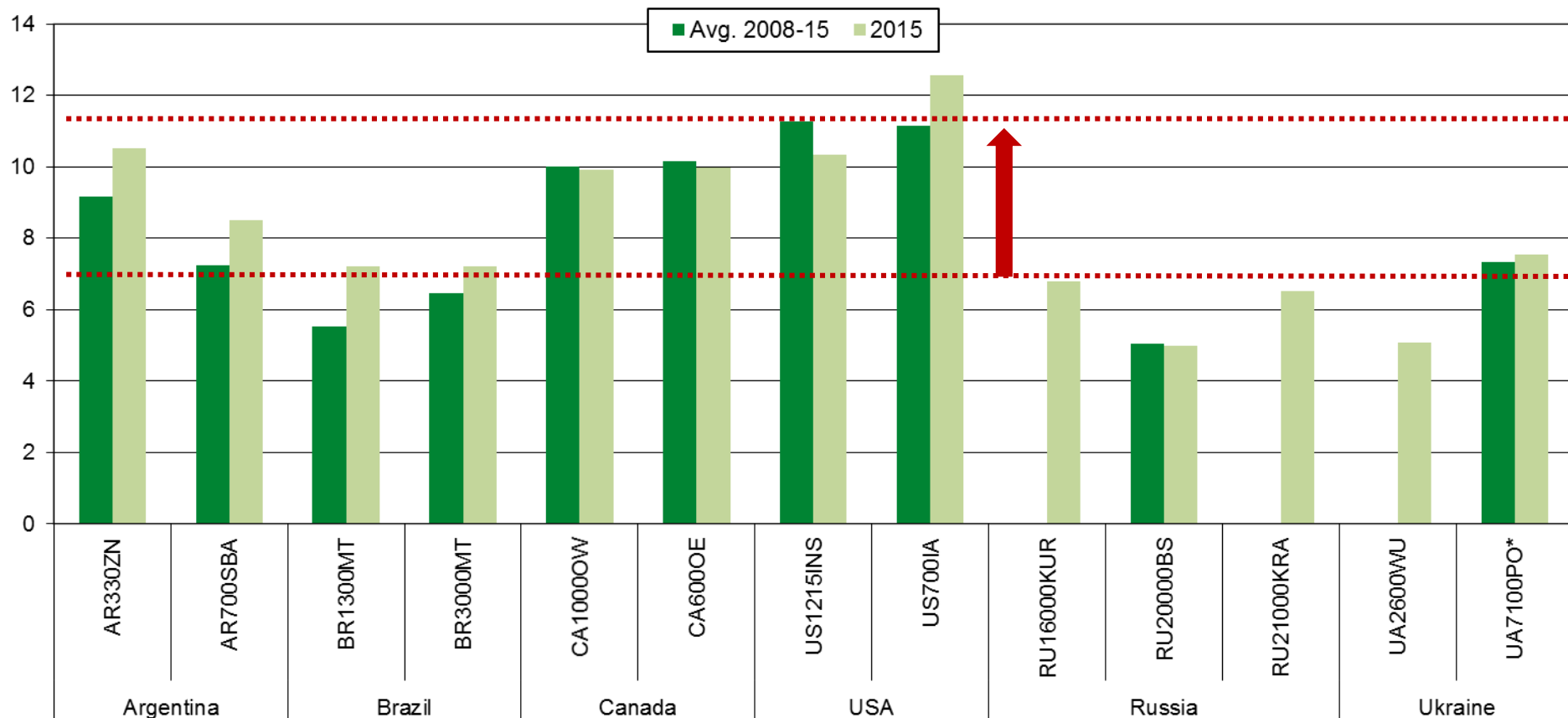
Wheat cash costs and revenues in USD/t



source: agri benchmark (2017)

- Smaller margins are observed in 2015. **RU and UA farms: lowest production costs.**
- **Argentina struggles with relatively low farm gate prices – export tax, logistics?**

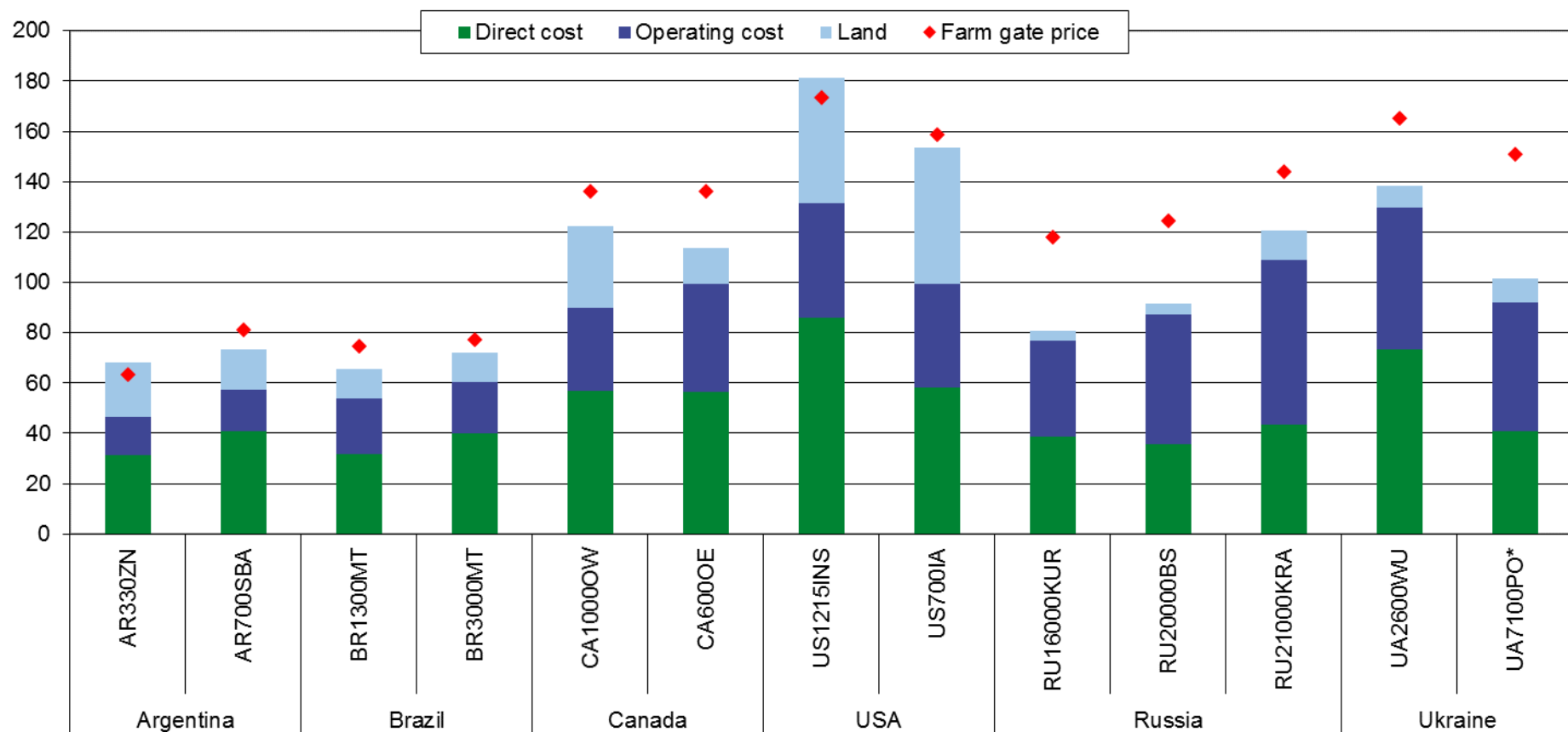
Corn yields in t/ha



source: agri benchmark (2017)

- US and CA > 10 t/ha – more intense production systems (>175kg N/ha)
- Brazilian farm grows corn as a second crop after soybean – lower intensity

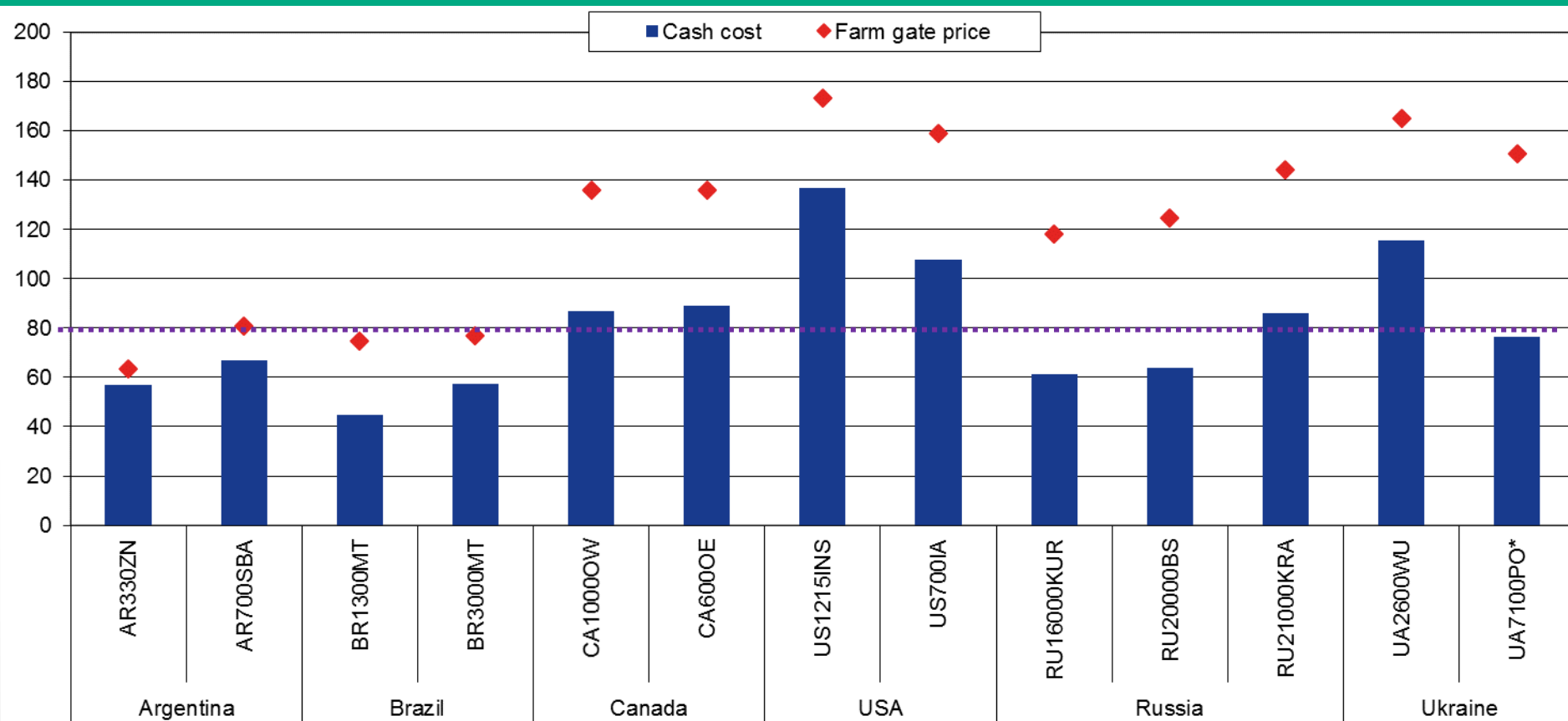
Corn key costs in USD/t (2015)



source: agri benchmark (2017)

- Most farms with direct and op. costs < \$110/t; AR and BR lower than \$60/t (low prices?)
- US facing high land costs, eating up the price advantage at farm level.

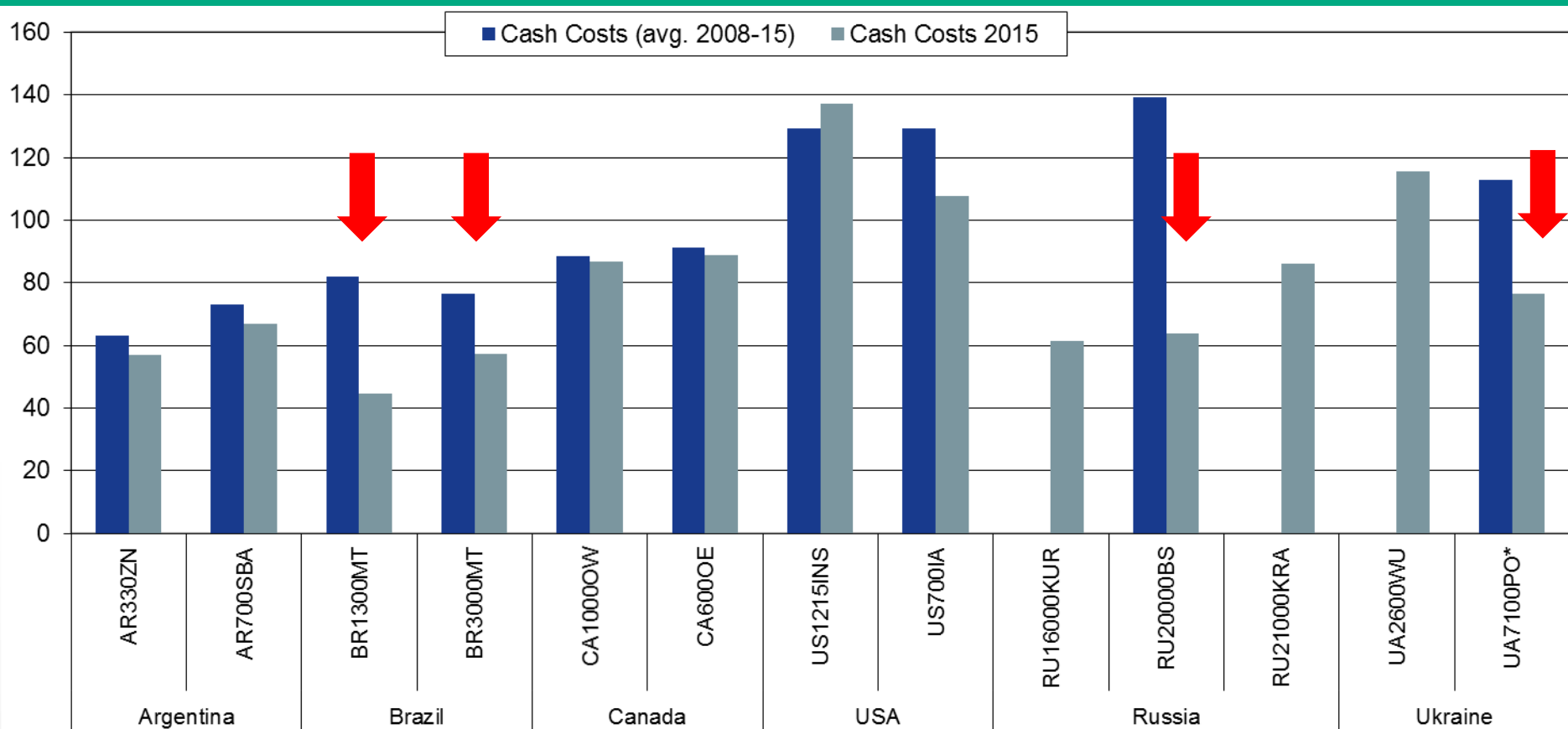
Corn cash costs and revenues in USD/t (2015)



source: agri benchmark (2017)

- Russian and BR farms similar costs – RU much higher farm gate prices
- Logistic costs reducing significantly farm gate prices in Brazil

Corn cash costs and revenues in USD/t



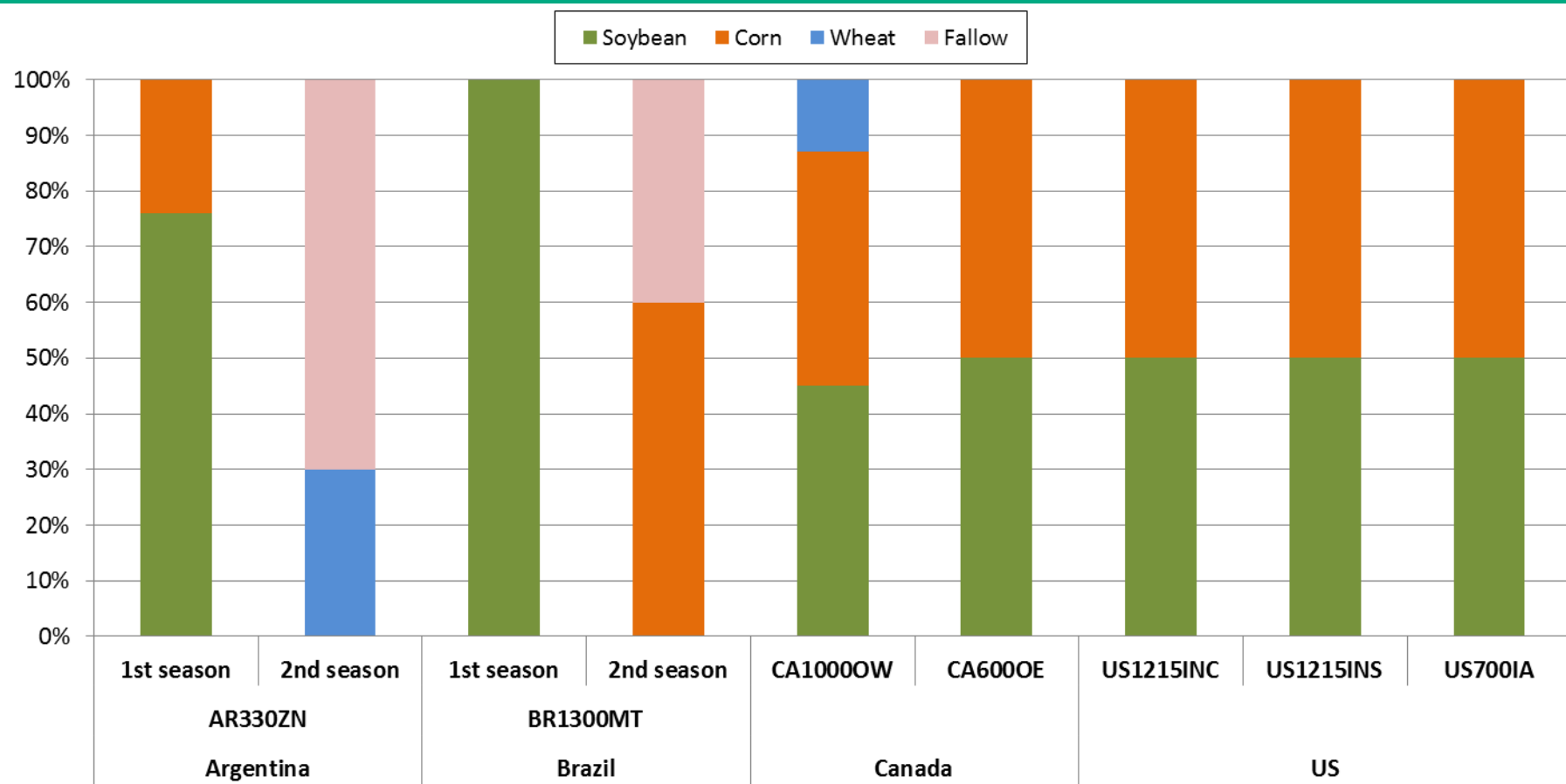
source: agri benchmark (2017)

- US farms struggled with the strong USD. Iowa farm had higher yields in 2015
- BR, RU and UA were able to deliver cost-competitive corn

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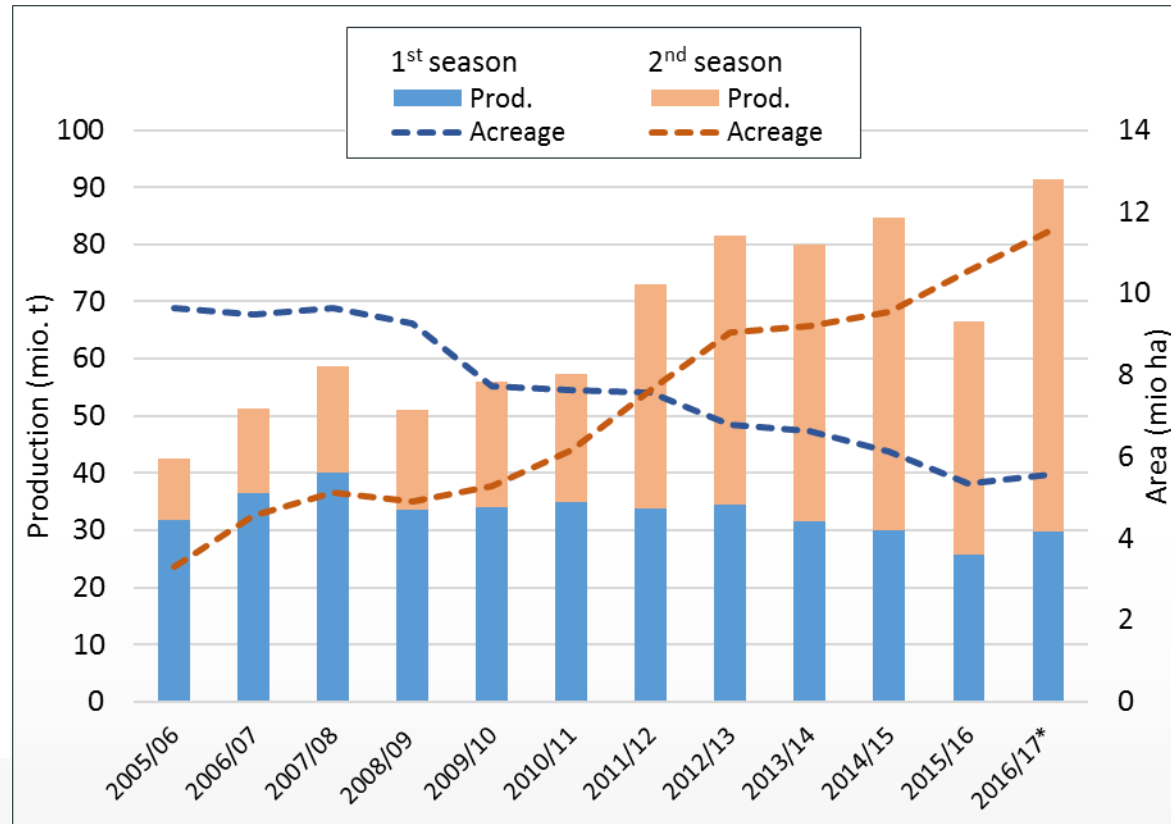
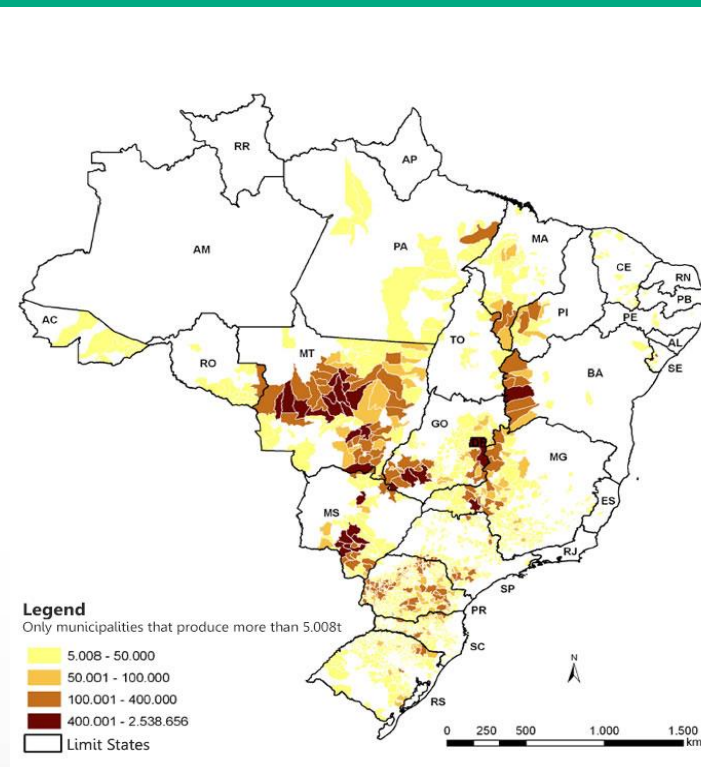
Crop rotation: importance of soybean vs. corn (%)



source: agri benchmark (2017)

- Corn in Brazil (MT) is a second crop - double cropping: soybean “+” corn instead “or”;
- In the US the acreage competition of these two crops is more severe

Corn double-cropping: quick response to markets



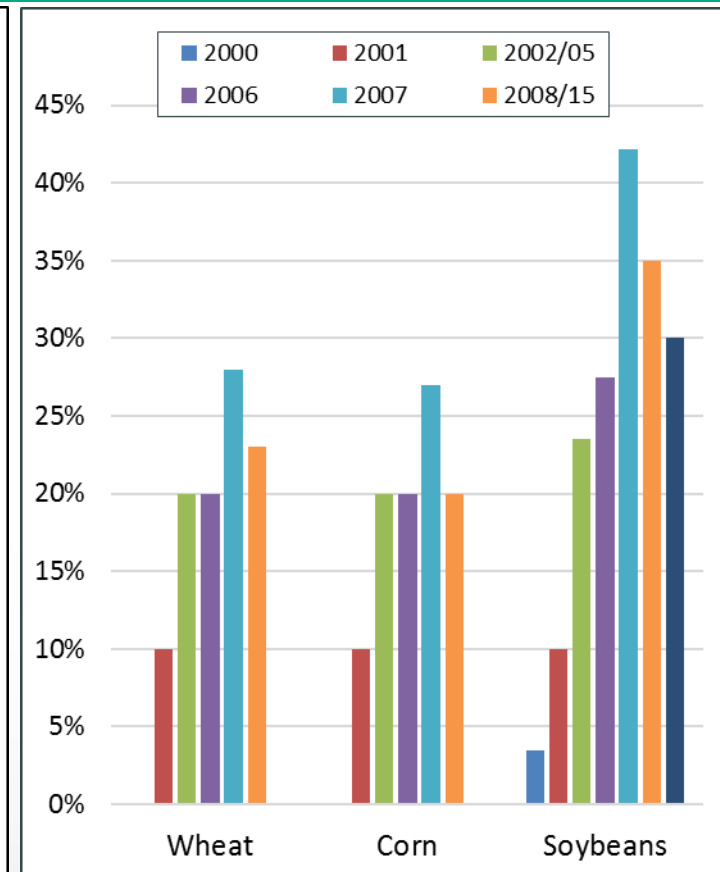
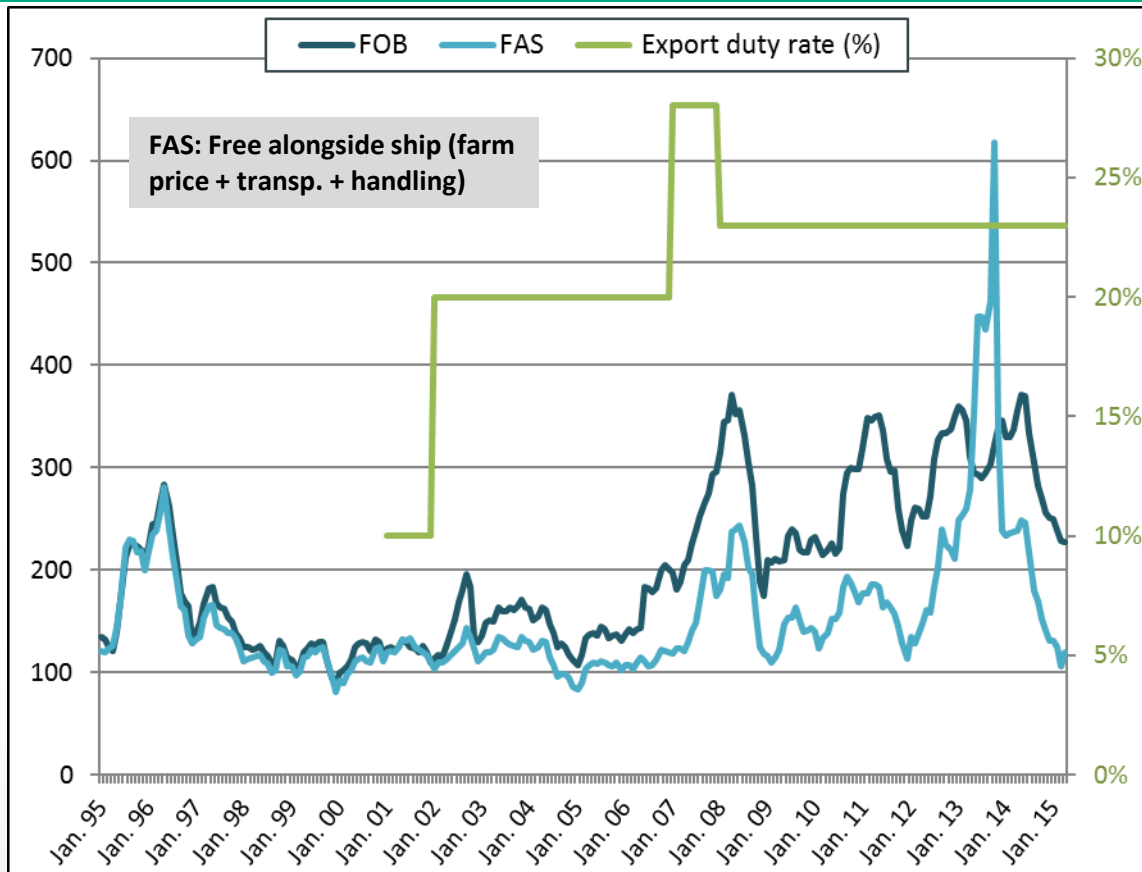
source: Conab, 2017

- Farmers can decide quickly on the acreage to be sown with corn
- Increase the usage of assets and enhance cash flows
- 2nd season corn is highly sensitive to weather; Drought in 2016 – loss of 14 million t.

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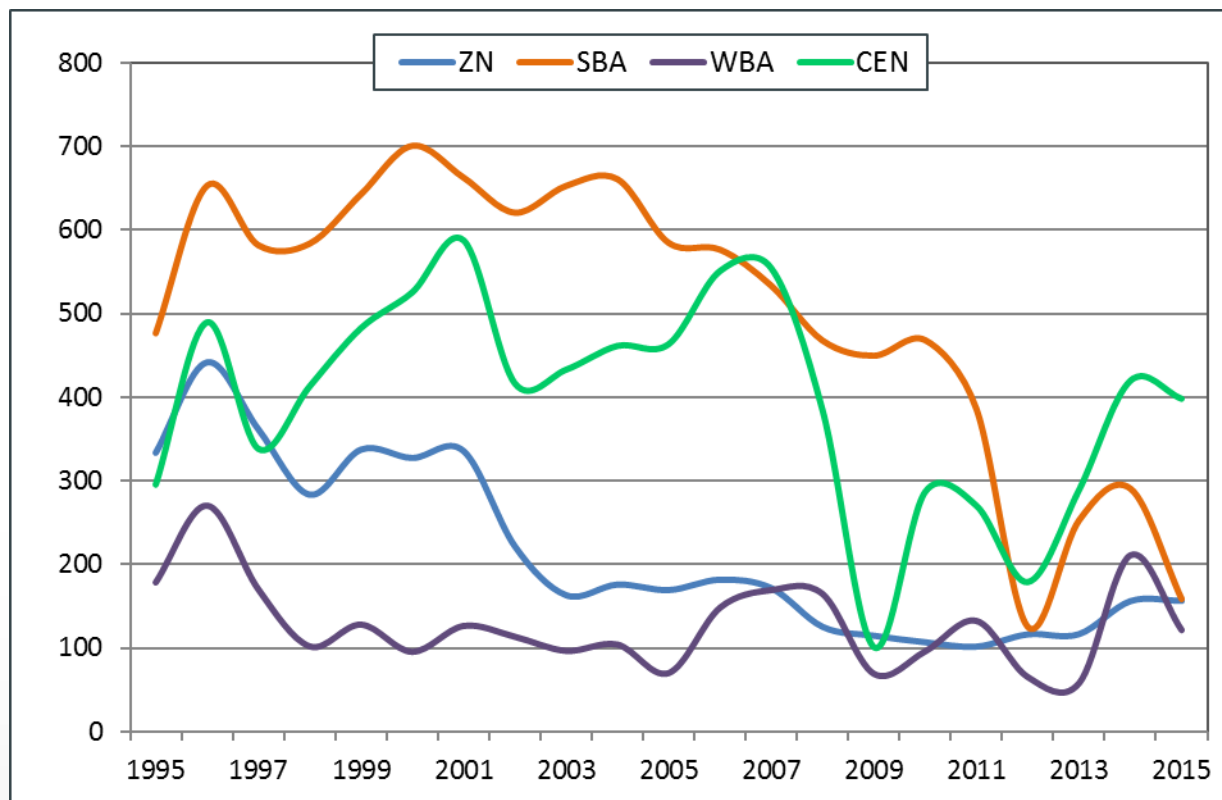
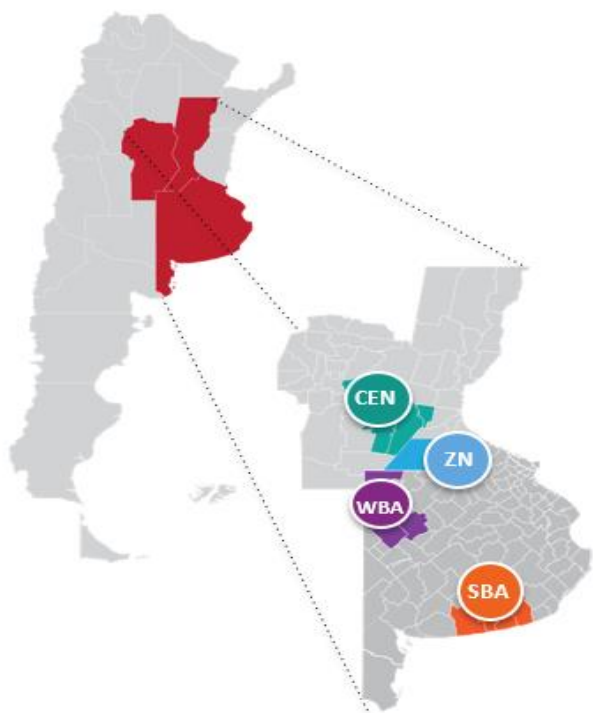
Argentinian wheat prices (USD/t) and export tax (%)



Source: Ministry of Agribusiness (2016), ed. by Hillock

- No export tax for corn and wheat after 2016.
- Sometimes price span higher than export rate – risk of temporary export bans.

Evolution of wheat acreage (in 1,000 ha)



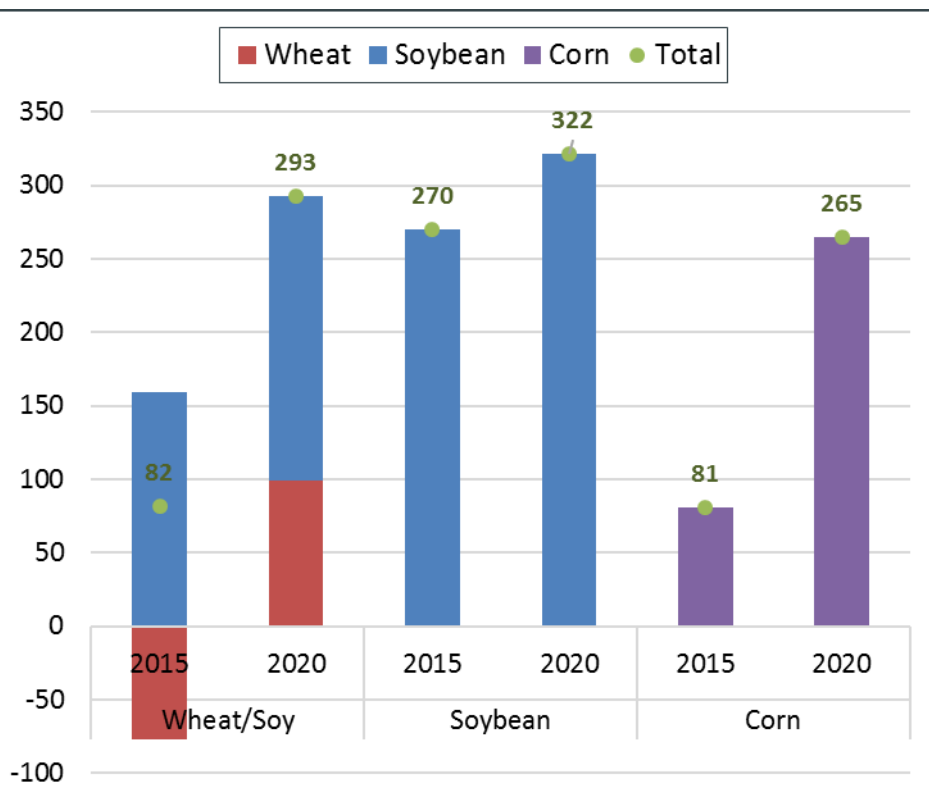
Source: Ministry of Agriculture (2016), ed. by Hillock

ZN = Zona Nucleo; SBA = Southern-Buenos-Aires
 WBA = Western-Buenos-Aires; CEN = Center region
 = 25% of national wheat output

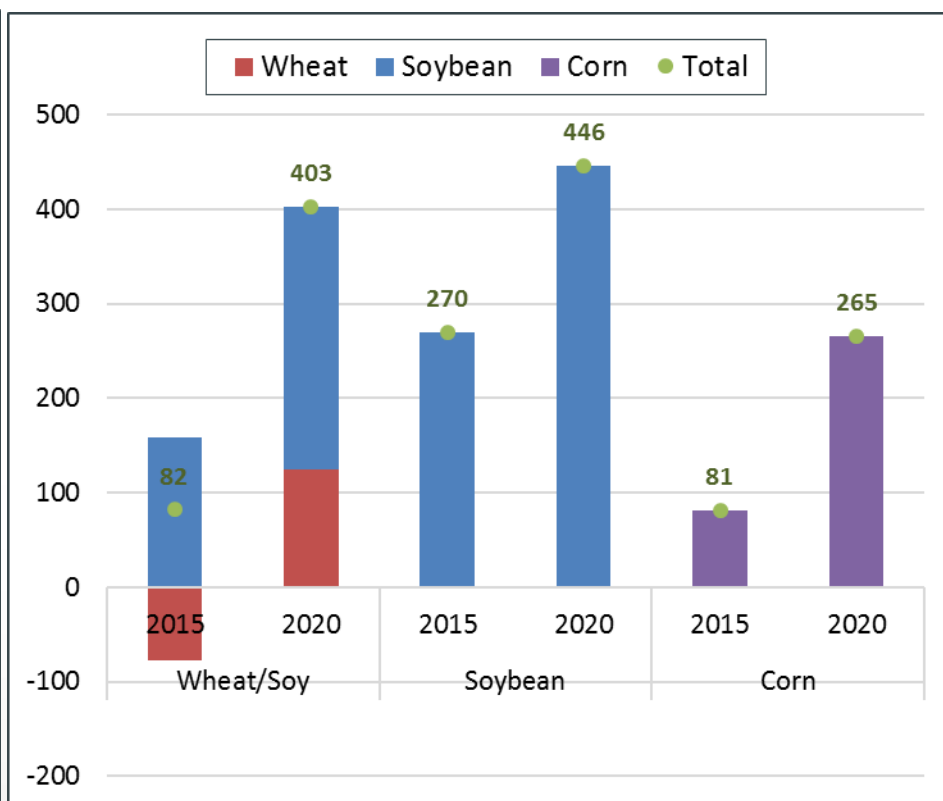
How will wheat profitability is expected to change after the abolishment of export tax?

Gross margins typical farm SBA (USD/ha)

realistic scenario



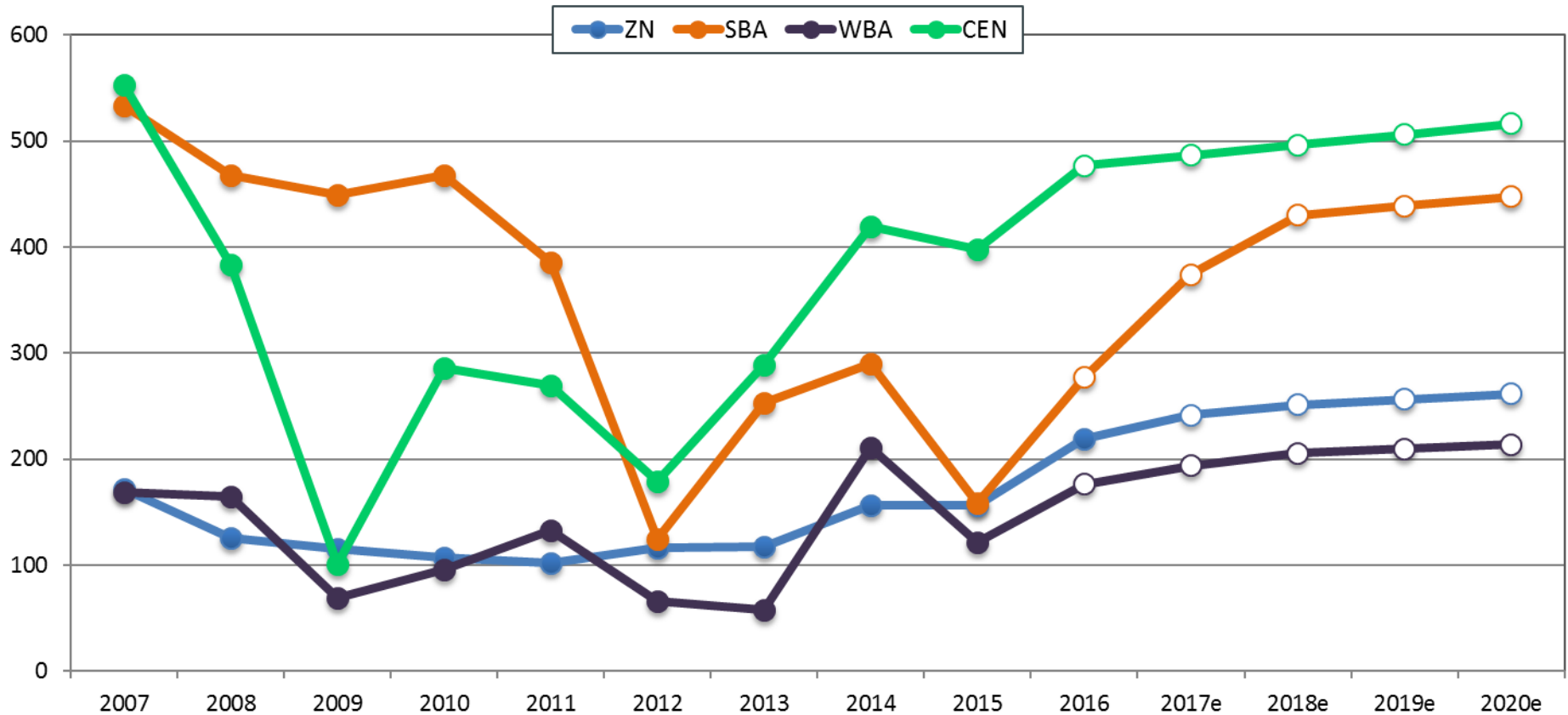
optimistic scenario



source: agri benchmark (2017)

- Wheat/soy rotation becomes much more profitable – acreage expansion
- Optimistic scenario = 18% tax on soybean

Projection of Argentinian wheat acreage (1,000ha)



source: agri benchmark (2017)

- Major acreage expansion into South Buenos Aires and Central Region
- In these 4 regions additional **2.5 million t are expected until 2020**

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Summary

- I. UA and RU farms are cost leaders in wheat production. Higher yields can be achieved in several regions – increasing competitiveness?
- II. As for wheat, RU and UA farms are cost-competitive in corn production. AR and BR are cost leaders but face low farm gate price.
- III. Double cropping in BR and AR increases the overall competitiveness of farms but these systems are more sensitive to weather issues
- IV. Ban of export tax in AR should lead to higher profitability and acreage expansion – AR expected to become a major player in global wheat production (low cost)
- V. Several regions are able to produce wheat for less than \$110/t putting pressure on global supply.
- VI. In 2015, several regions including Brazil, Argentina, and RU were able to produce corn for less than \$80/t.

Knowledge is our business

Thank you for your attention



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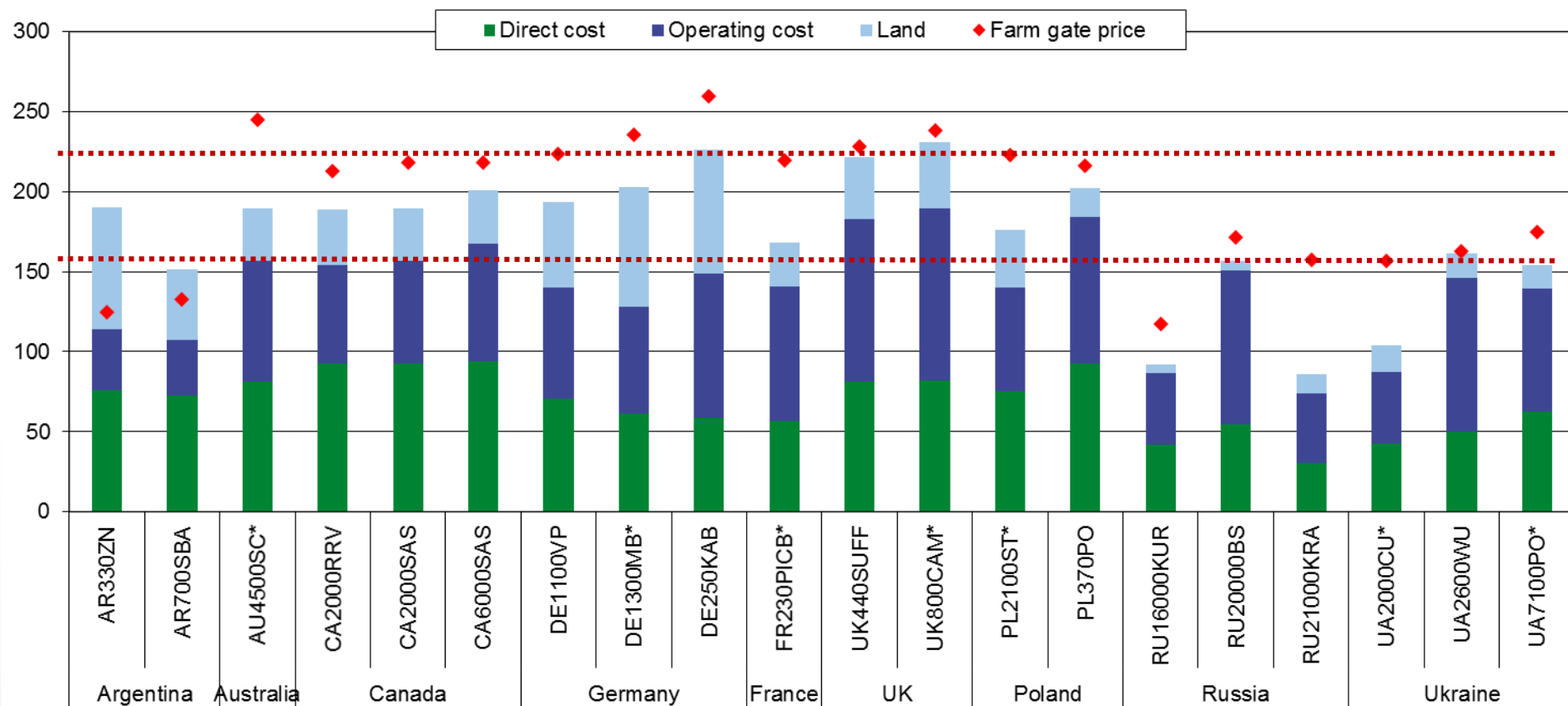
- Member of *agri benchmark* Cash Crop team -

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Appendixes

Wheat key costs and prices in USD/t (avg. 2008 – 2015)



- **RU16000KUR and RU21000KRA data only from 2015 onwards**