Pulses: Global Market Development and Farm Level Economics

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Commercial partners: 中粮国际 COFCO INTL, BASF, John Deere, ufop, Bayer

agri benchmark Cash Crop Conference
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Agenda

(1) **Overview global pulse production and trade**

(2) **Economics of pulse production**

   a) **On-farm competitiveness of pulses**

   b) **International competitiveness of pulse producers**

(3) **Summary**

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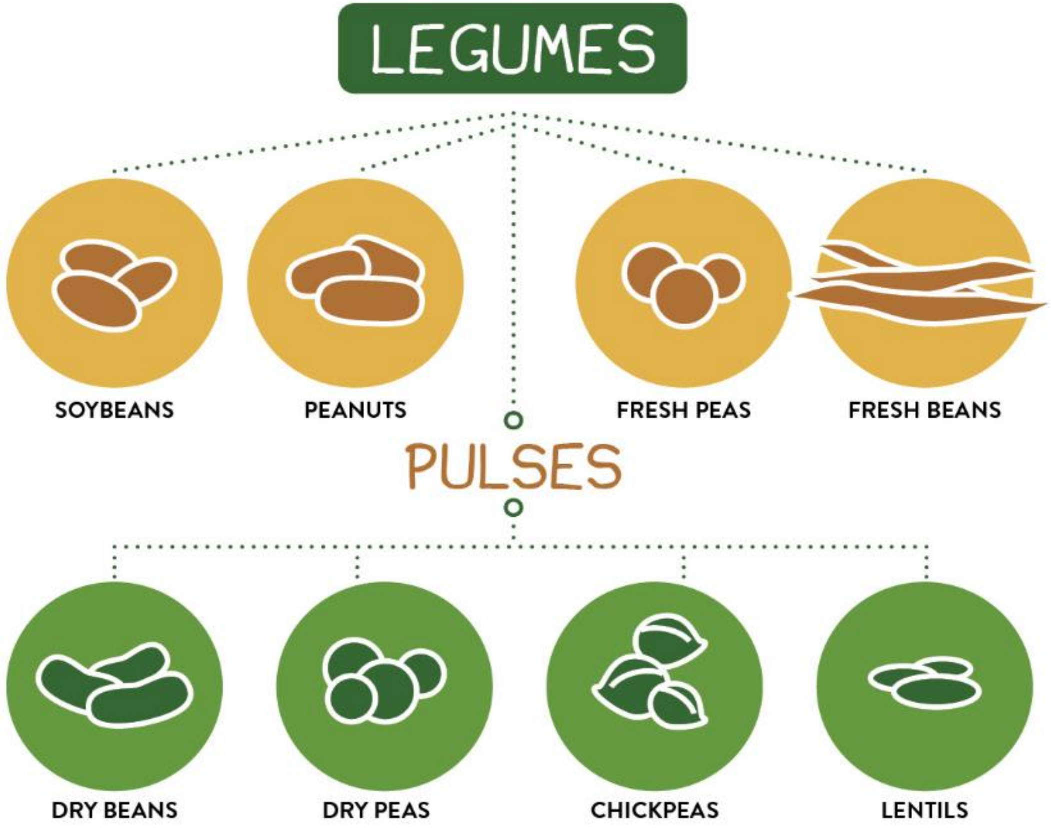
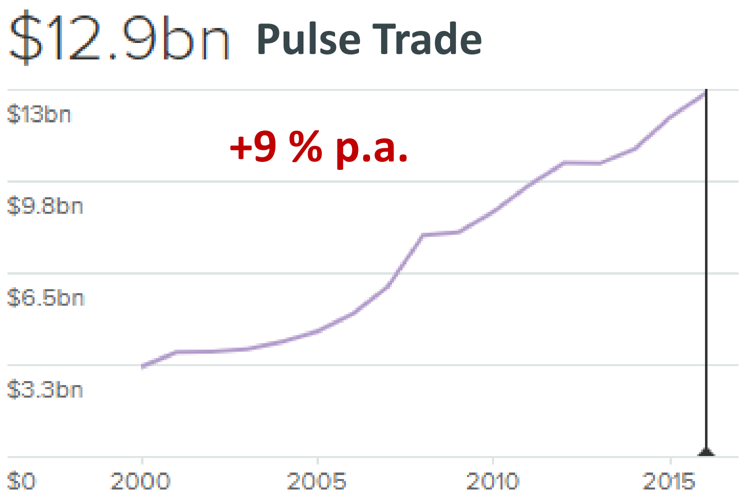
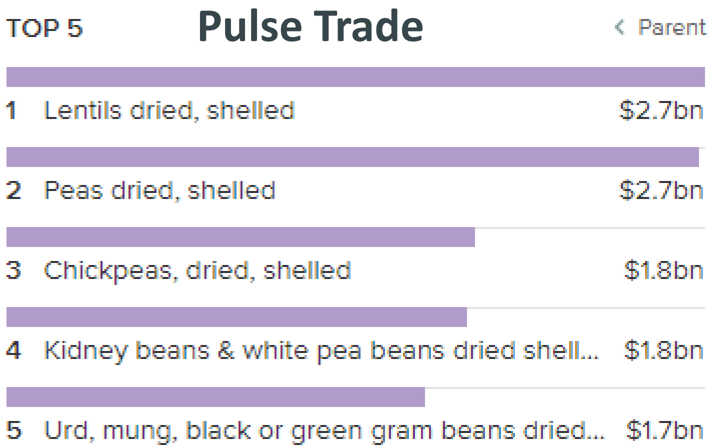
What are pulses?

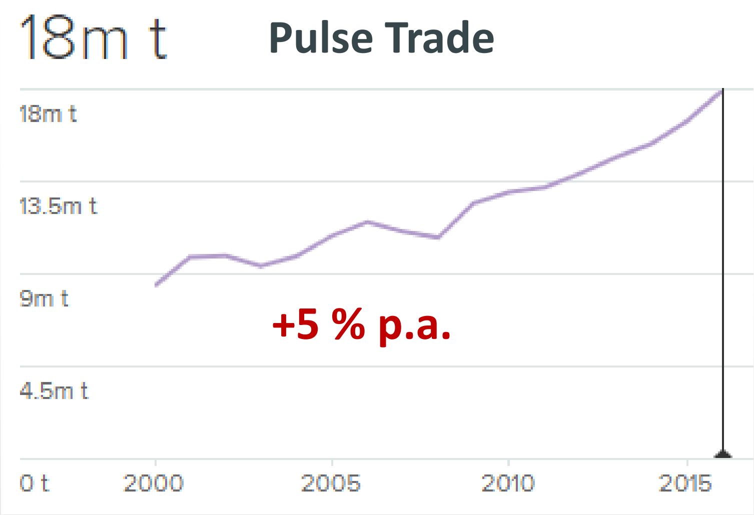


- Pulses: dried edible seeds of certain species of legumes.
- Pulses: very high in protein and fibre, and are low in fat.
- Pulses (as all legumes) are nitrogen-fixing crops.

World Trade in Pulses (2000 to 2016)



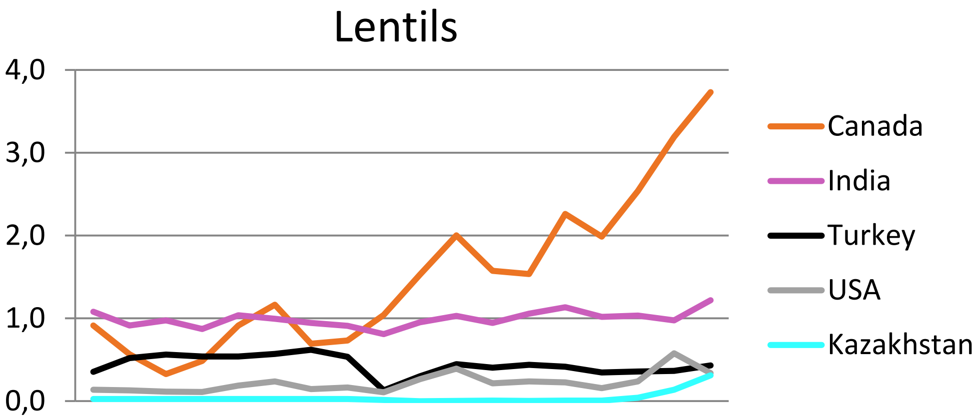


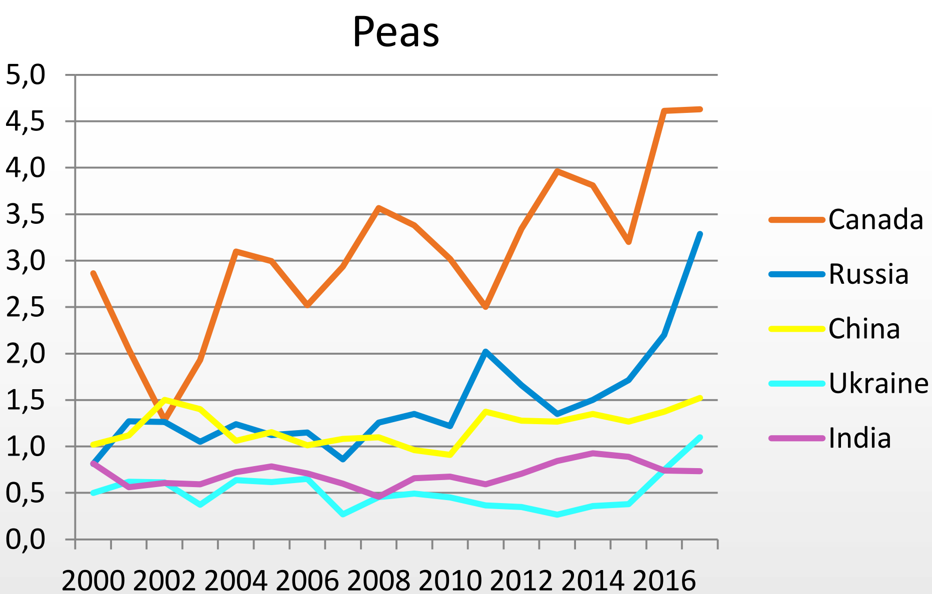


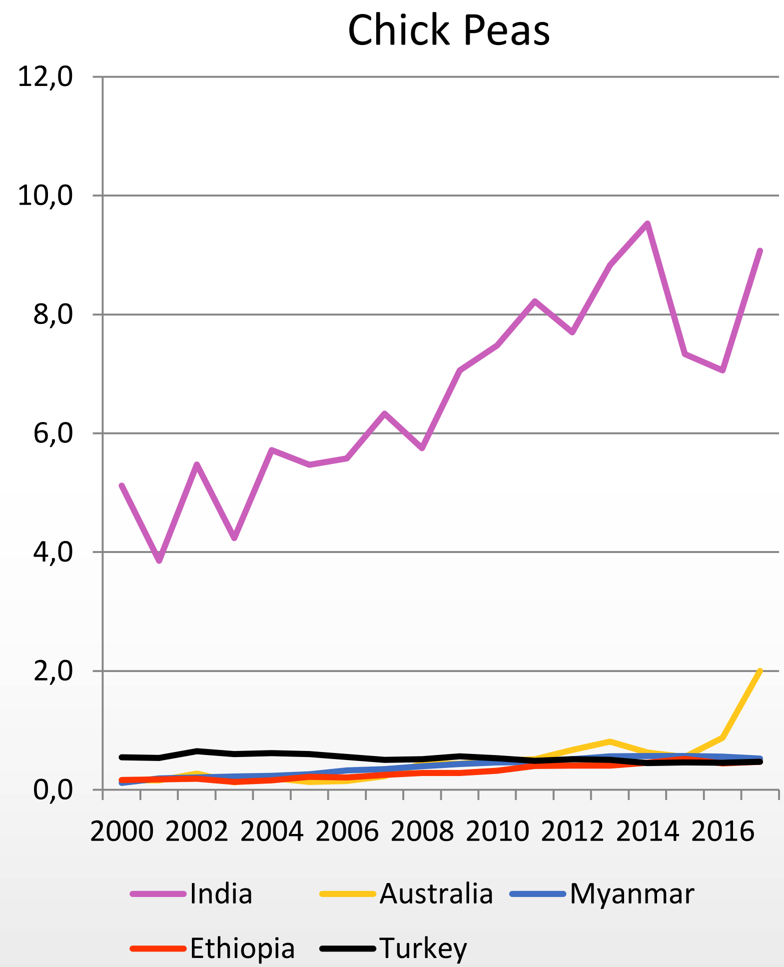
- Pulses: Very high value product. **0.1%** by weight of all ag trade but **1.1%** by value

Data source: COMTRADE/ CHATHAM HOUSE. https://resourcetrade.earth/

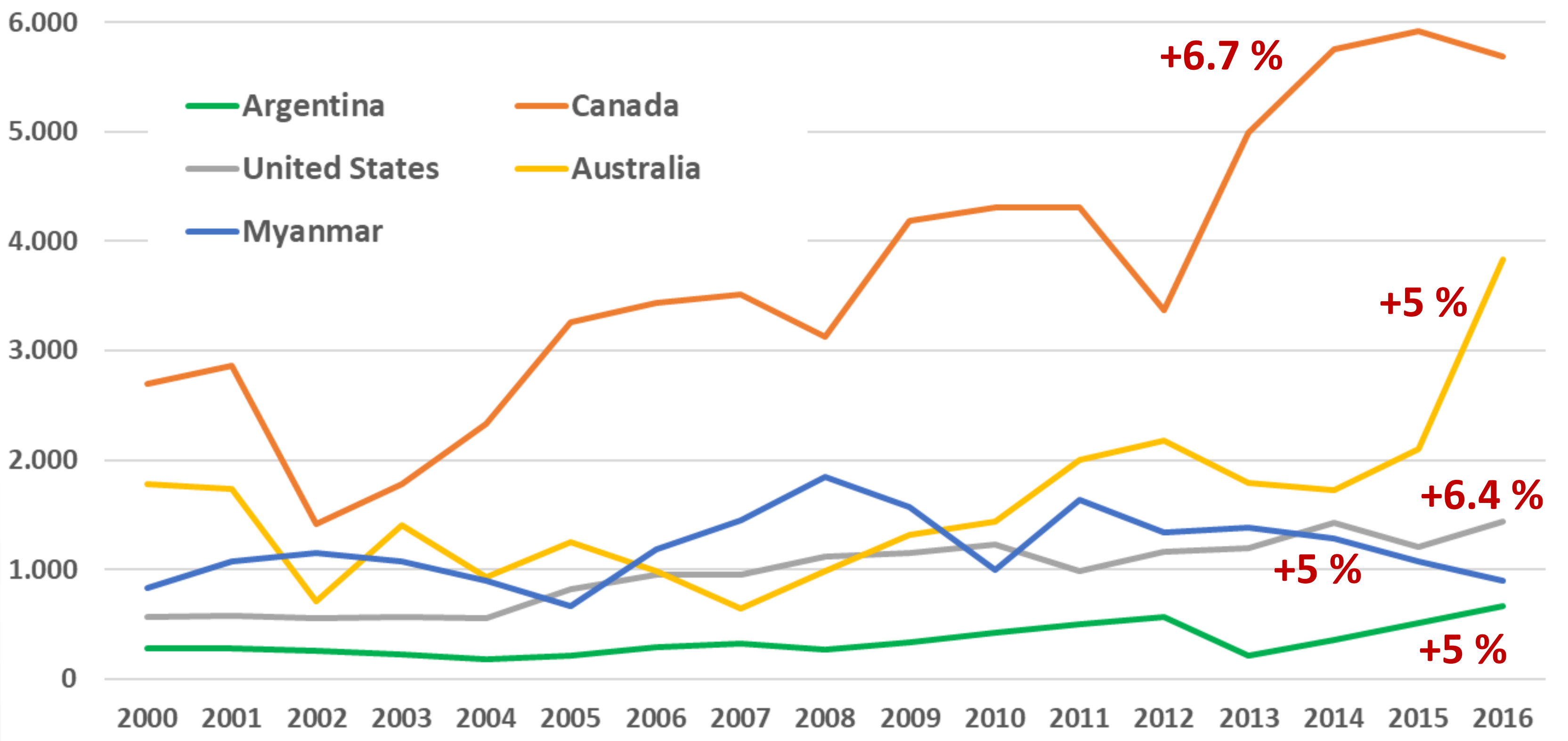
Production of selected pulses (million metric tons) by countries







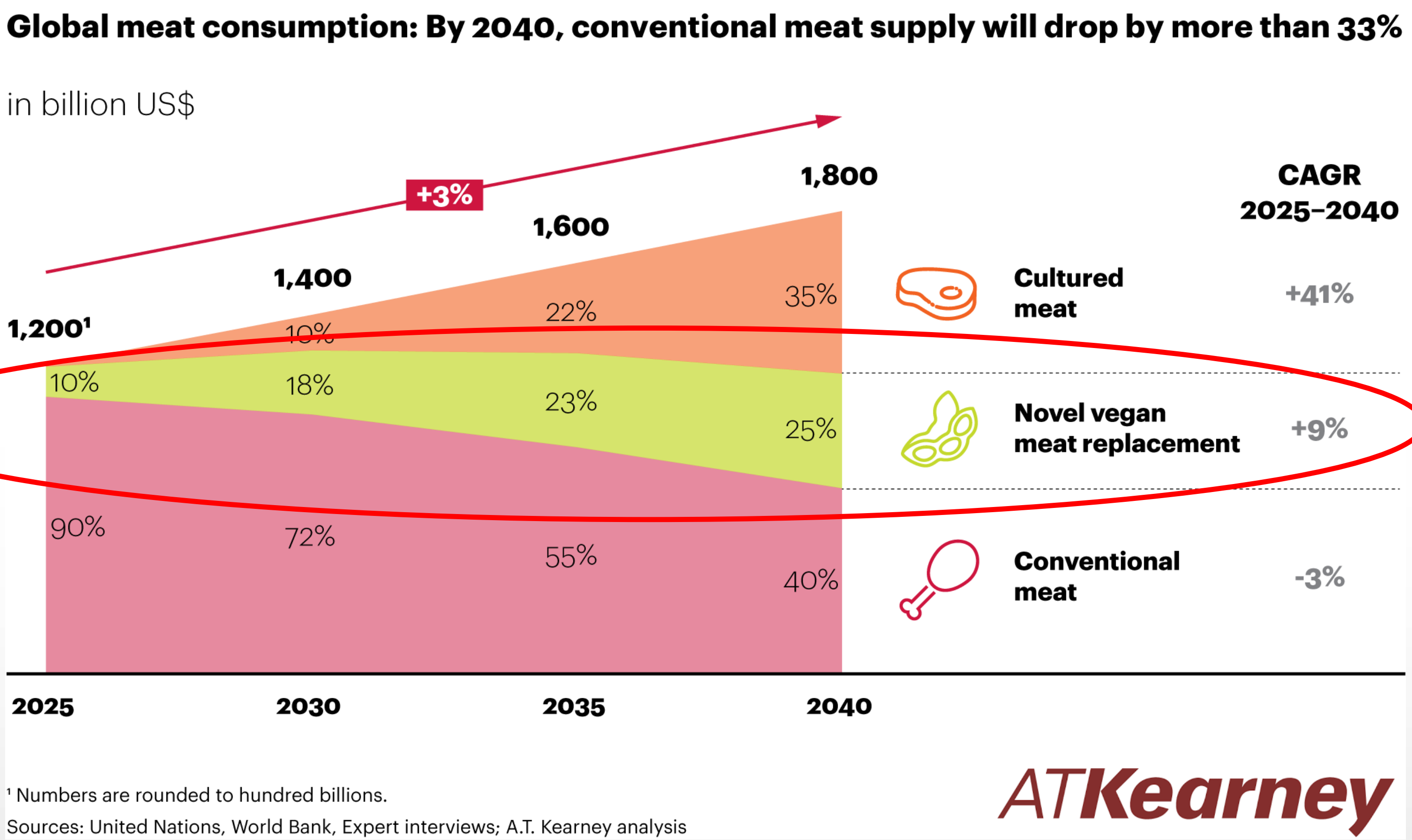
Leading Pulse Exporters (in 1,000 t)



- CA: by far the biggest player, with highest growth rate
- But: AU is picking up rapidly
- Top 5: 70 % of global trade

Source: ABARES (2017)

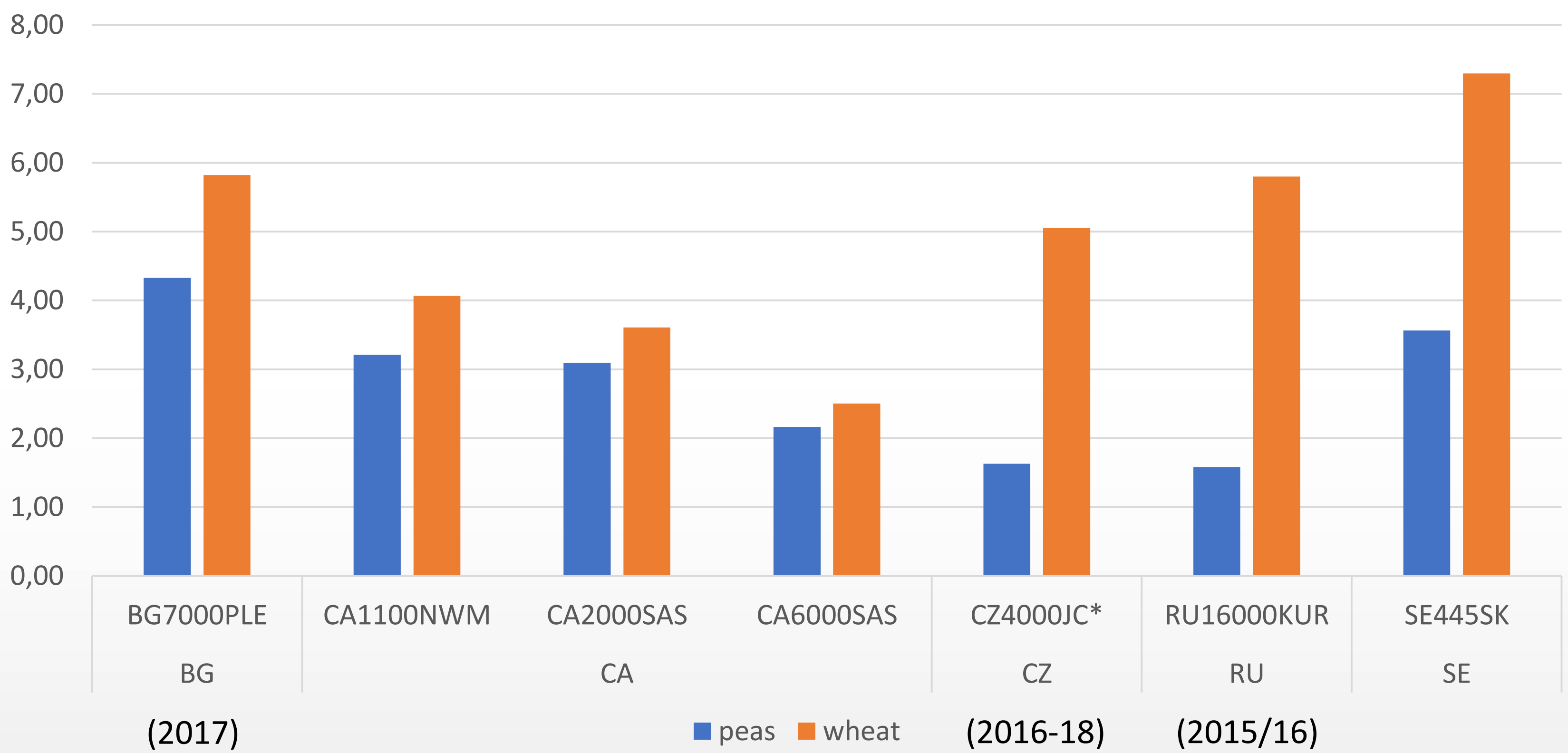
Outlook: AT Kearney on the future of meat consumption



Source: AT Kearney, 2019 https://www.atkearney.com/retail/article/?/a/how-will-cultured-meat-and-meat-alternatives-disrupt-the-agricultural-and-food-industry

Competitiveness of Pulses (example: Peas)

On-farm Competitiveness:
Yields Peas vs Wheat (avg. 2015-18, metric tons/ha)



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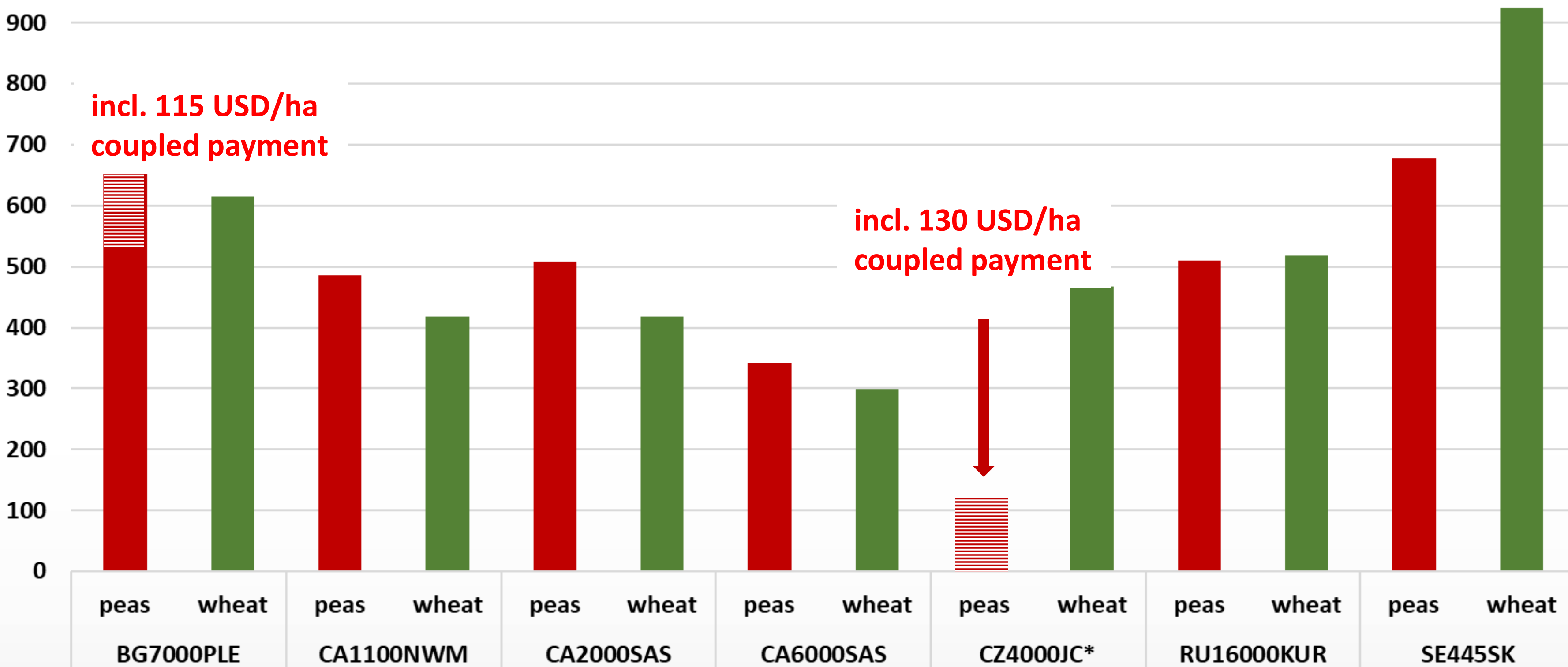
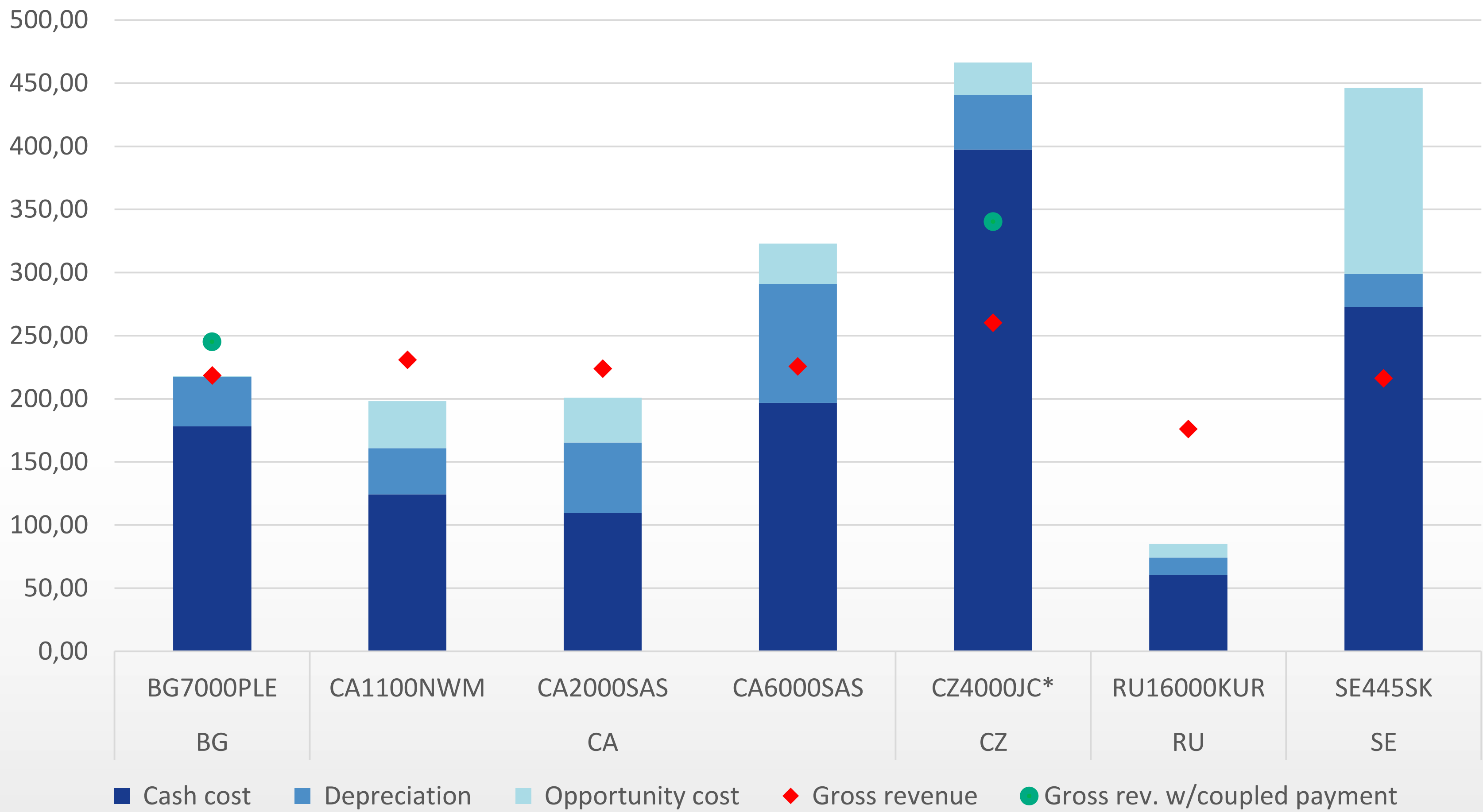
On-farm Competitiveness: Gross Margin Peas vs. Wheat (in USD/ha; Ø 2015 -17)



- Peas for CA farms more profitable than wheat
- Exception: CZ & SE-farms – massive disadvantage vs. wheat
- BG depends on coupled payments to make it more profitable than wheat

International Competitiveness (Example: Peas): Total Cost and Revenue (USD/metric ton)



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Kazakhstan & Siberia – the rising Competitors?

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Location: Western Siberia (Russia) and Northern Kazakhstan

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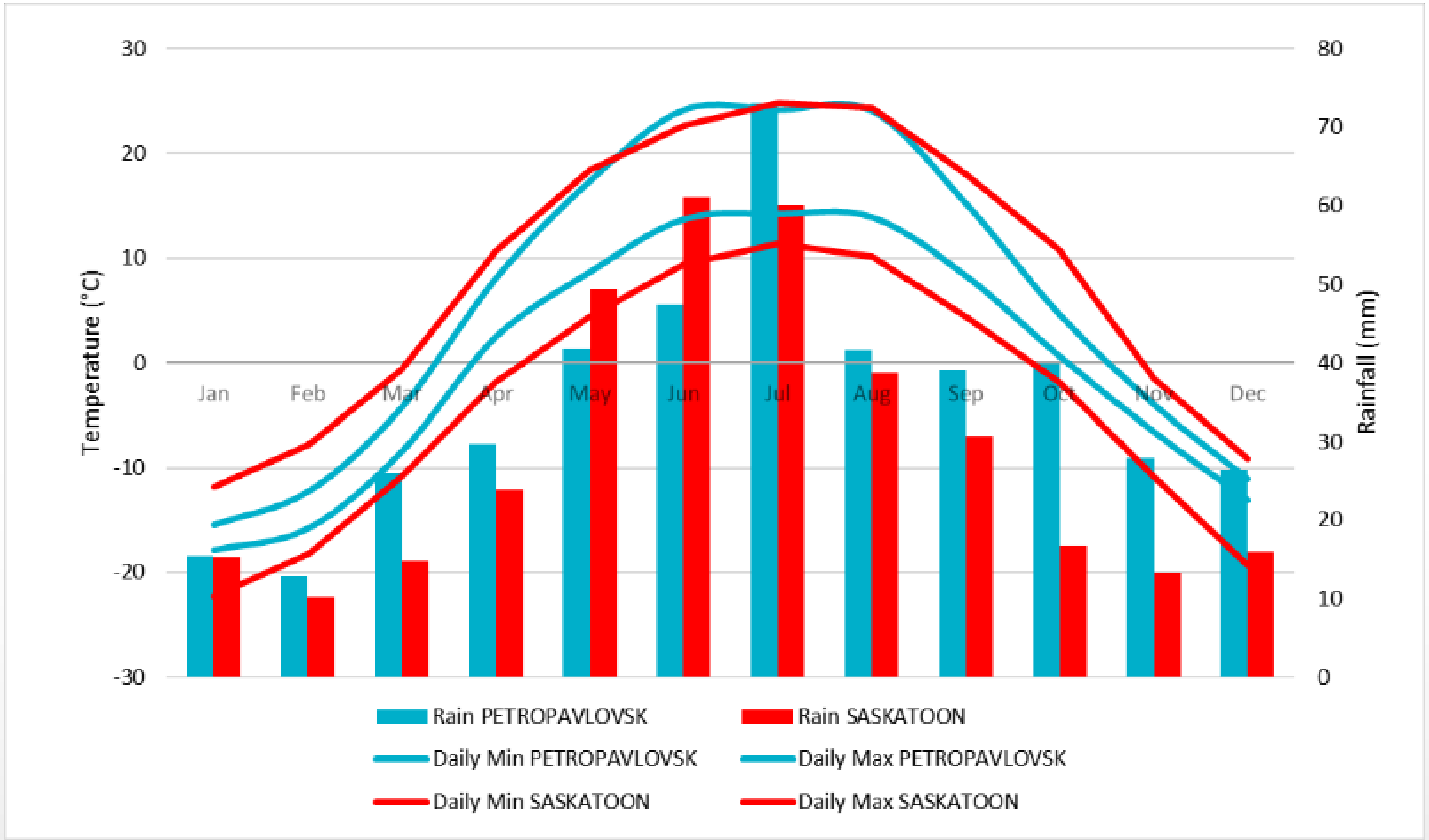
Climate North American Prairies vs. Eurasian Steppes



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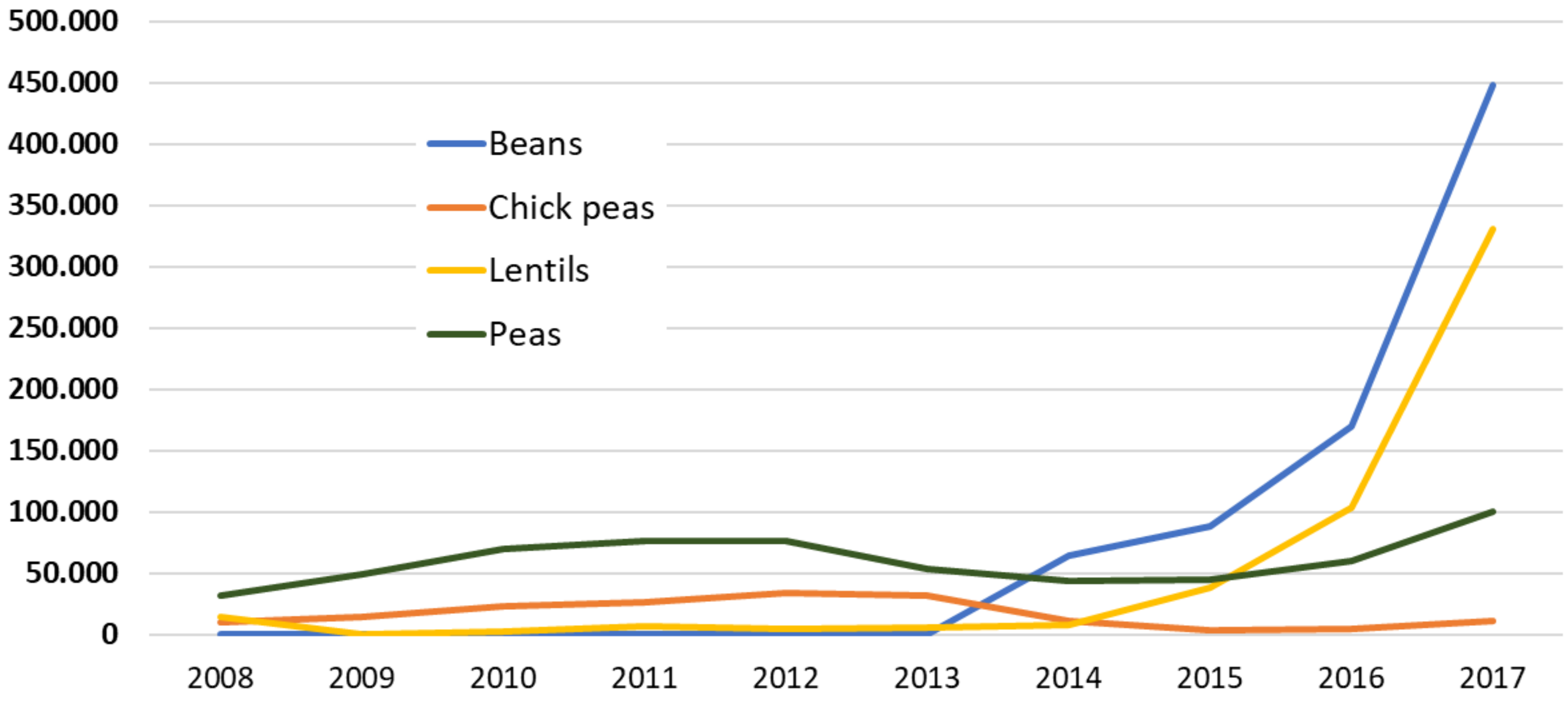
Pulses Acreage in Kazakhstan (in ha)



- **From a low level steep increase for Beans and Lentils**
- **Little/no increase in Peas and Chickpeas**

Source: FAO (2019)

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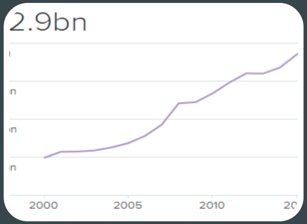
Summary



Pulses: attractive market, growing and shifting to higher value crops

- Supported by changing nutritional preferences
- Canada is the world market leader, Australia catching up

Favorable economics of pulses in overall low-yielding natural environment

- Europe: Economics improve with rotational effects and subsidies

Eurasian steppes have favorable growing conditions

- Pulse production still small but growing
- Upcoming competitors Russia and Kazakhstan?