# Ukraine -
# Rapeseed vs. Sunflowers & Soybeans

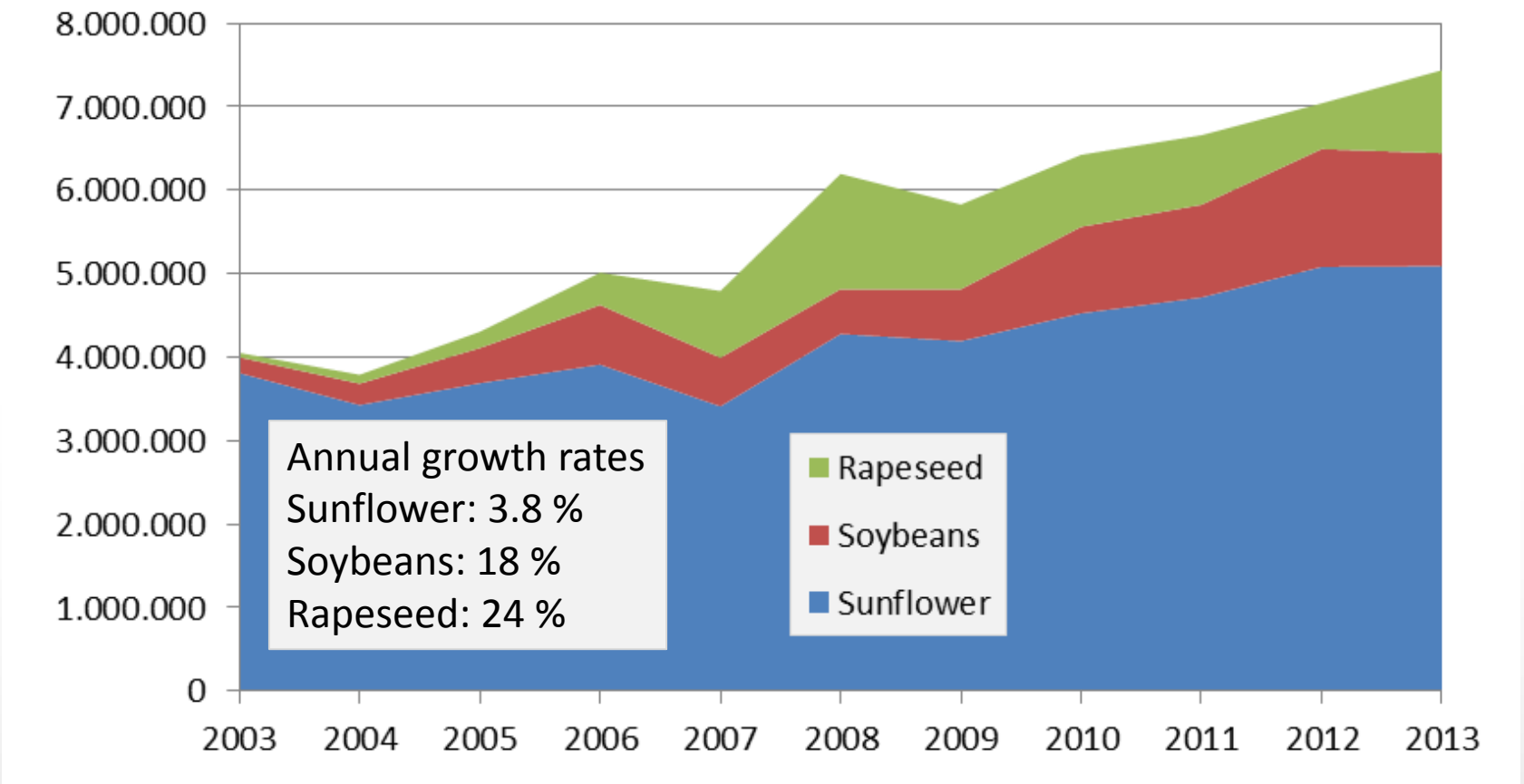
**Yelto Zimmer**
Thünen Institute of Farm Economics

**International Rapeseed Congress**
**Saskatoon, July 8th 2015**

# Agenda

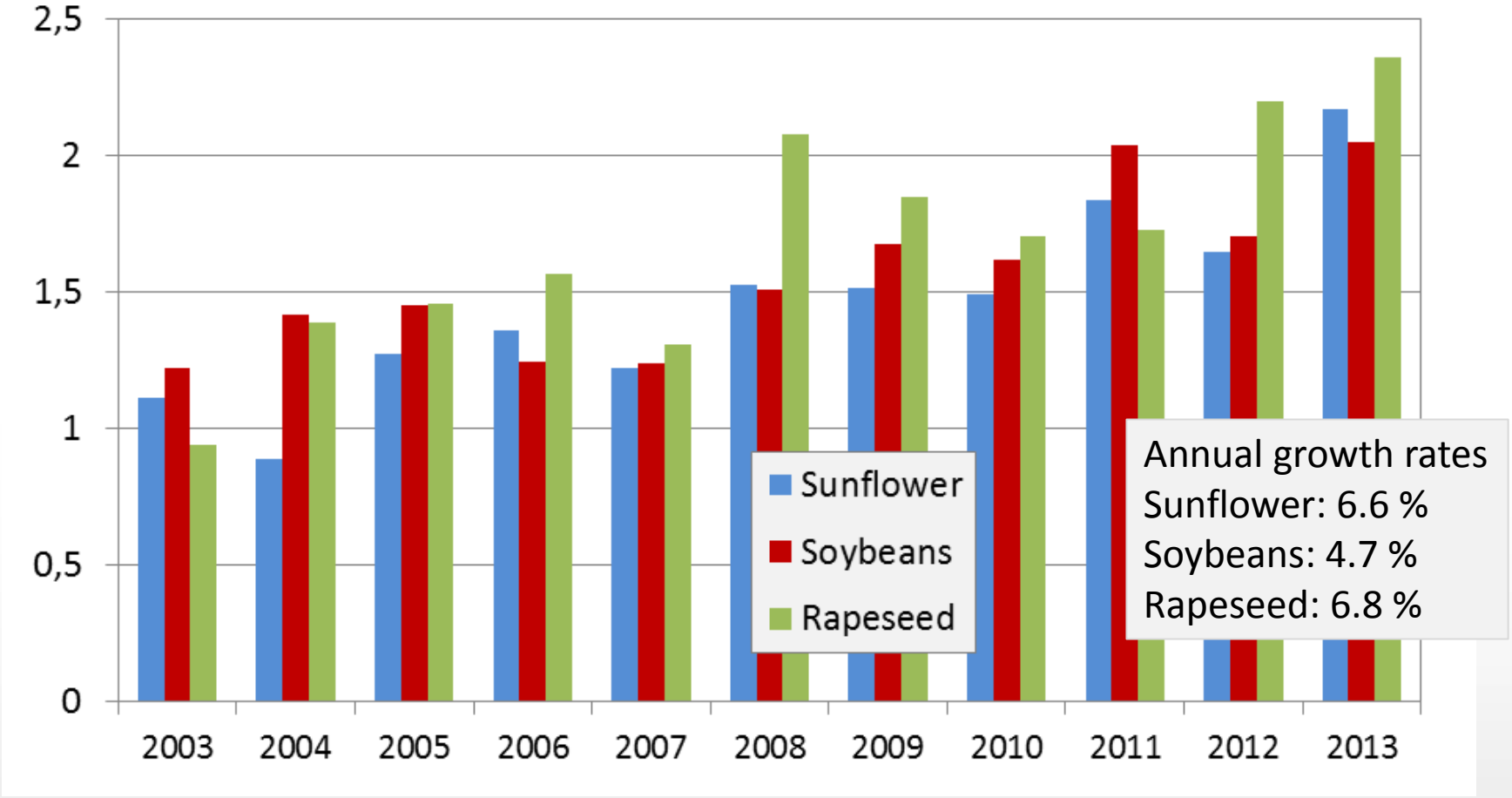
1. Development of Rapeseed and other Oilseeds in the Ukraine
2. Overview of Typical Farms in the Ukraine
3. Competitiveness of Rapeseed vs. other Oilseeds
4. Non-monetary Considerations Rapeseed vs. other Oilseeds
5. Conclusions and Outlook

# Evolution Ukrainian Oilseed Acreage (2003 to 2013)




Source: FAO Stat 2015, own calculation

# Evolution Ukrainian Oilseed Yields (2003 to 2013)




Source: FAO Stat 2015, own calculation

# Bottom Line re. Evolution of Oilseeds in Ukraine

1. All oilseeds experienced a massive growth in acreage and yields.
2. Acreage for soybeans and rapeseed as “newcomers” almost exploded; but rapeseed with a strong variation.
3. Rapeseed tends to slightly outperform the other oilseeds in terms in yield and yield growth.

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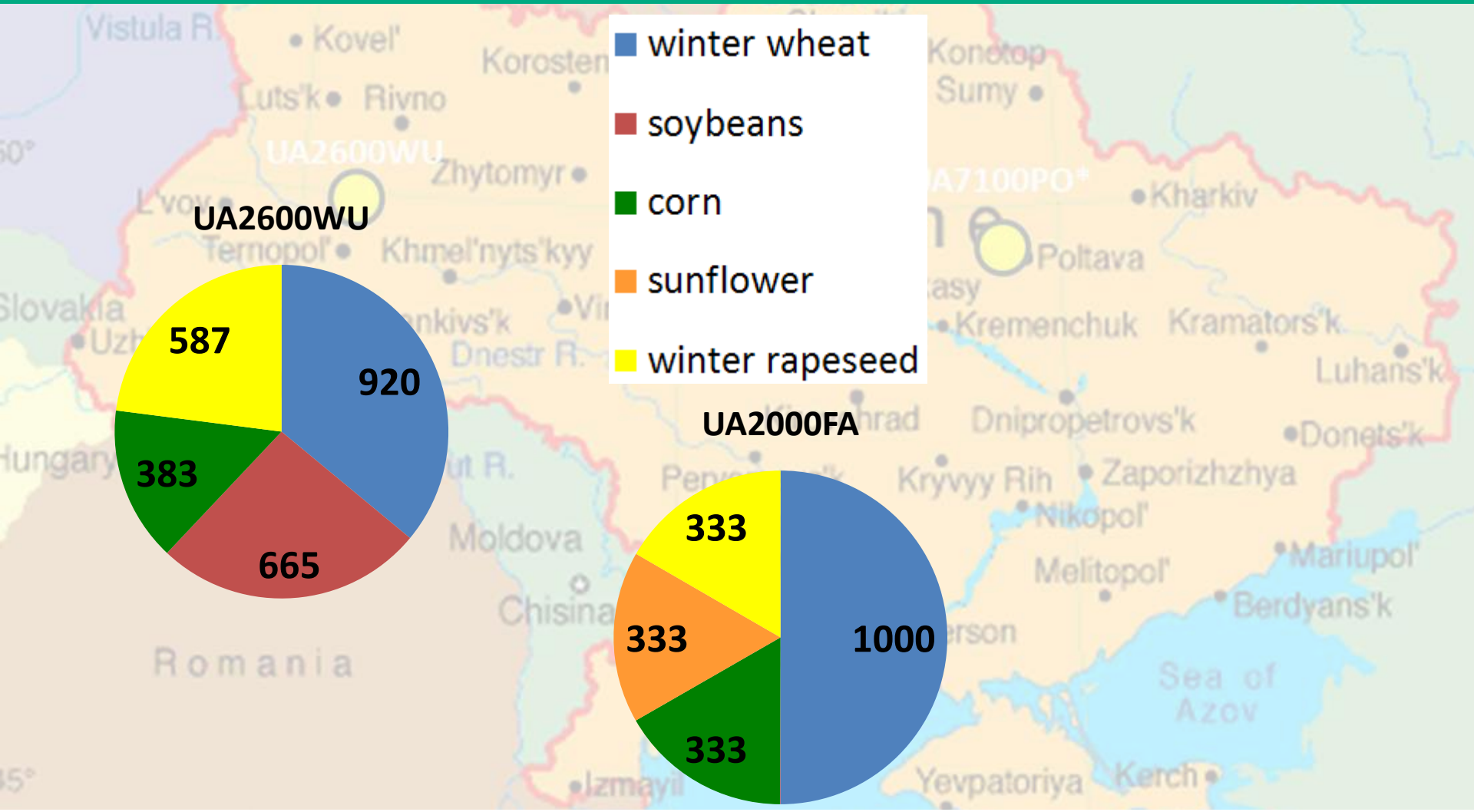
# Location of two typical *agri benchmark* Farms

# Profile of the typical Farms

| | UA2600WU | UA2000FA |
|---|---|---|
| **Management / Ownership** | Top Management from the West - Holding Farm | Independent Western Farmer |
| **Soil type** | Chernozem | Chernozem |
| **Tillage system** | min-till | conservation tillage (mulch seed) |
| **Precipitation** | 600 mm/a | 550 mm/a |

# Crops at the typical Farms (in ha)



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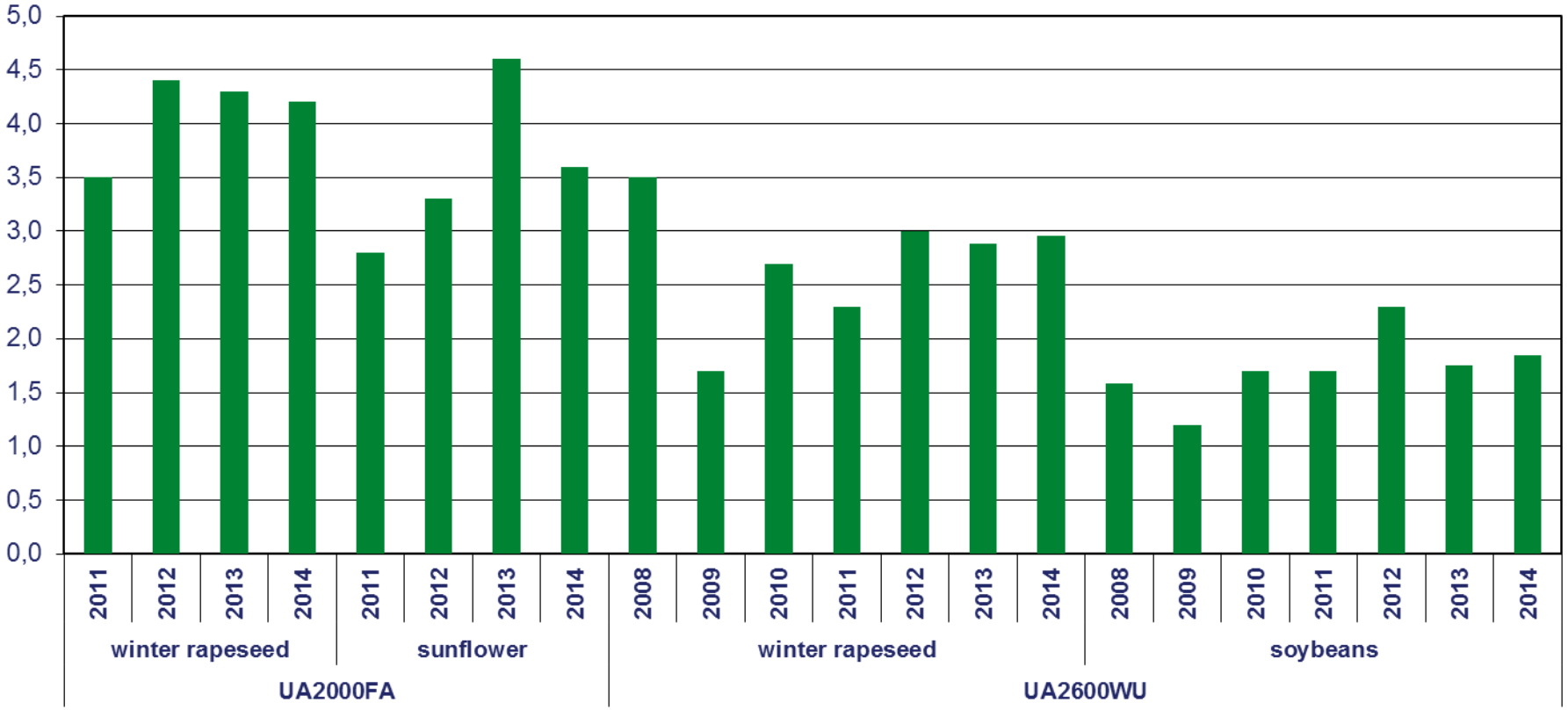
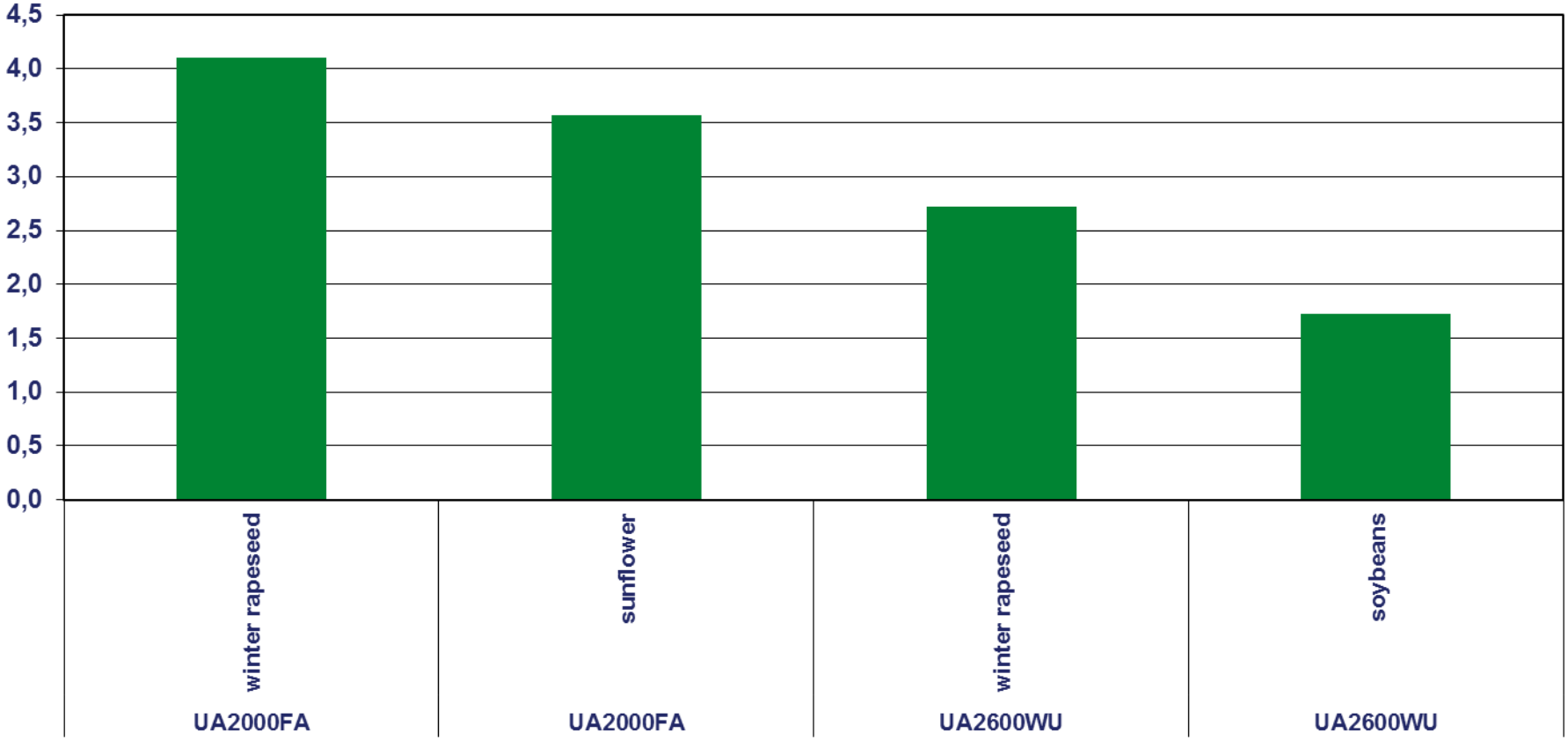
# Yield in Rapeseed, Sunflowers and Soybeans (t/ha)



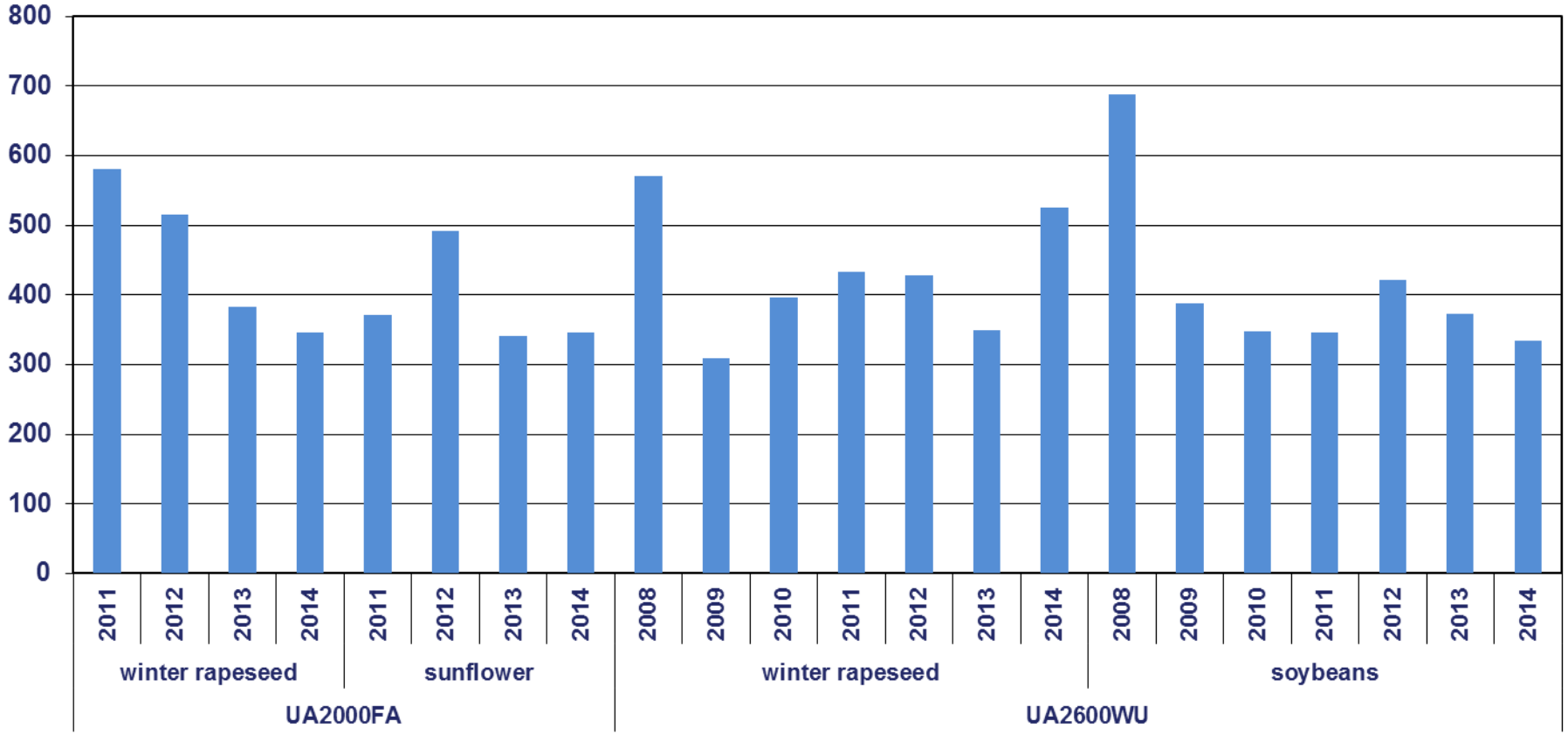

1. At the indep. farm rapeseed yields close to/at Western European standards; sunflower yields close to rapeseed (4 vs. 3.5 t/ha).
2. Rapeseed yields of holding farm well below indep. farm

# Average Yields Rapeseed, Sunflowers & Soybeans (t/ha)




1. Indep. farm: rapeseed app. 0.5 t/ha better than sunflower.
2. Holding farm: rapeseed app. 1 t/ha higher than soybeans.

# Prices for Rapeseed, Sunflowers and Soybeans (USD/t)



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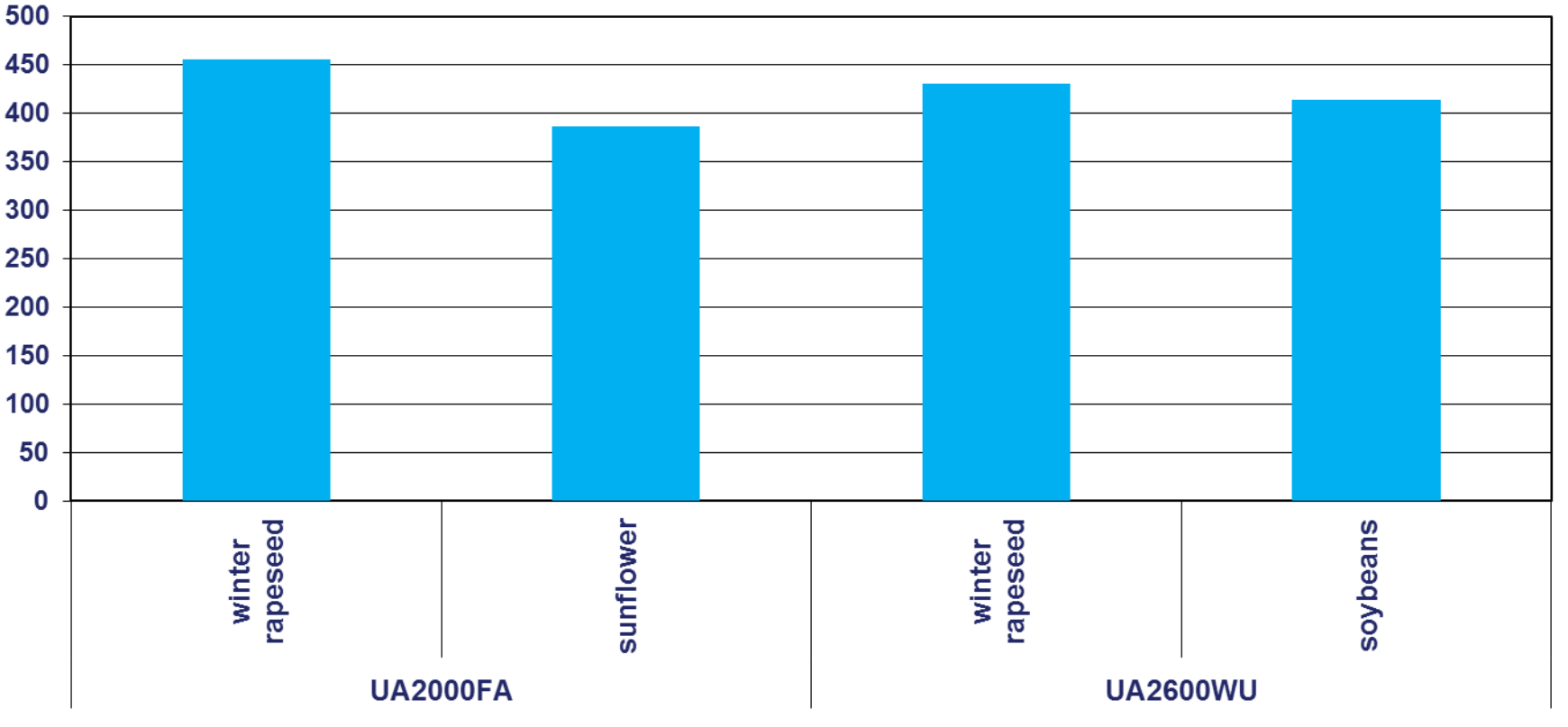
# Prices for Rapeseed, Sunflowers and Soybeans (USD/t)




1. No major differences in rapeseed vs. soybean prices
2. Rapeseed tends to be significantly priced higher than sunflower.



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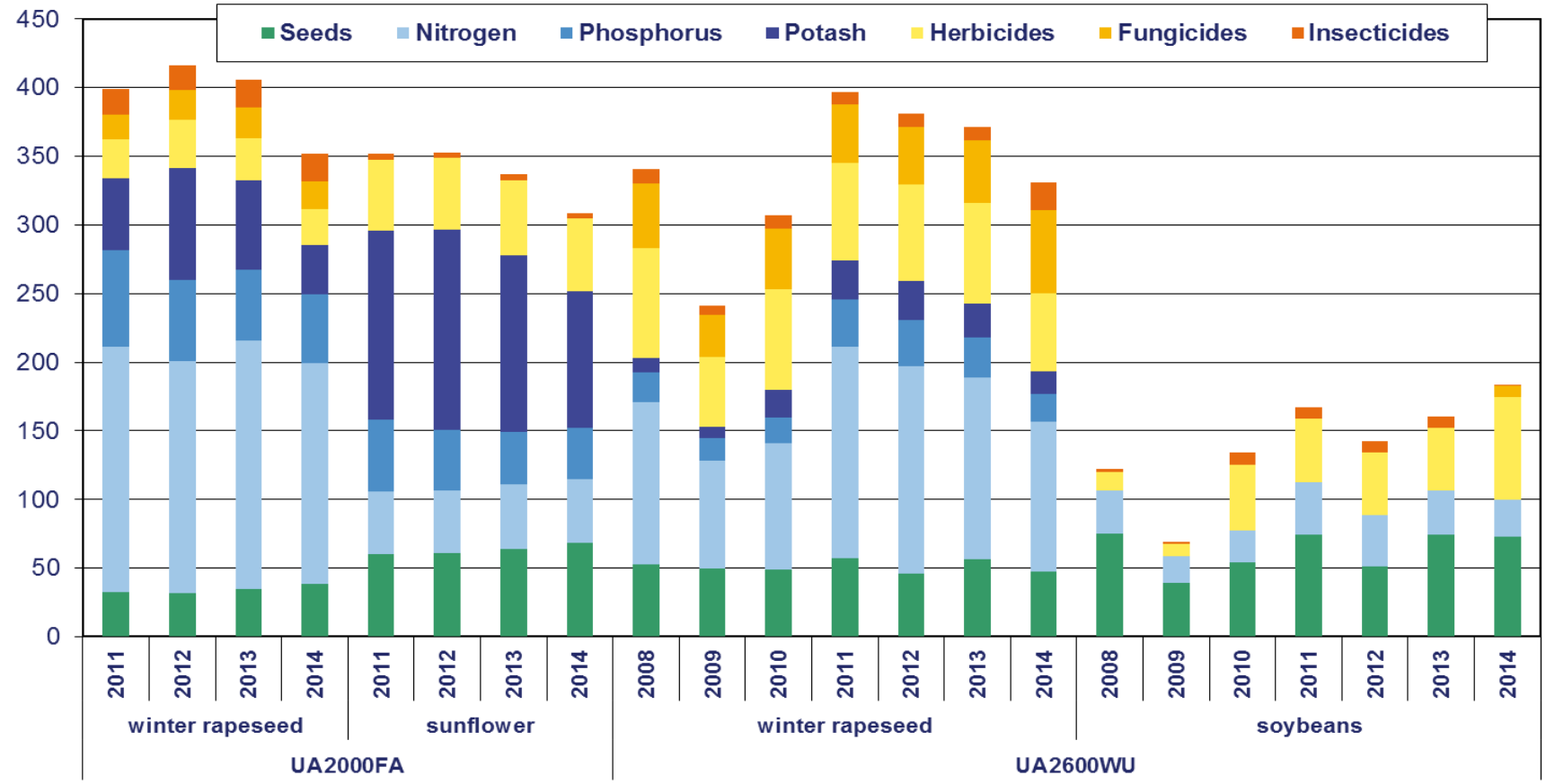
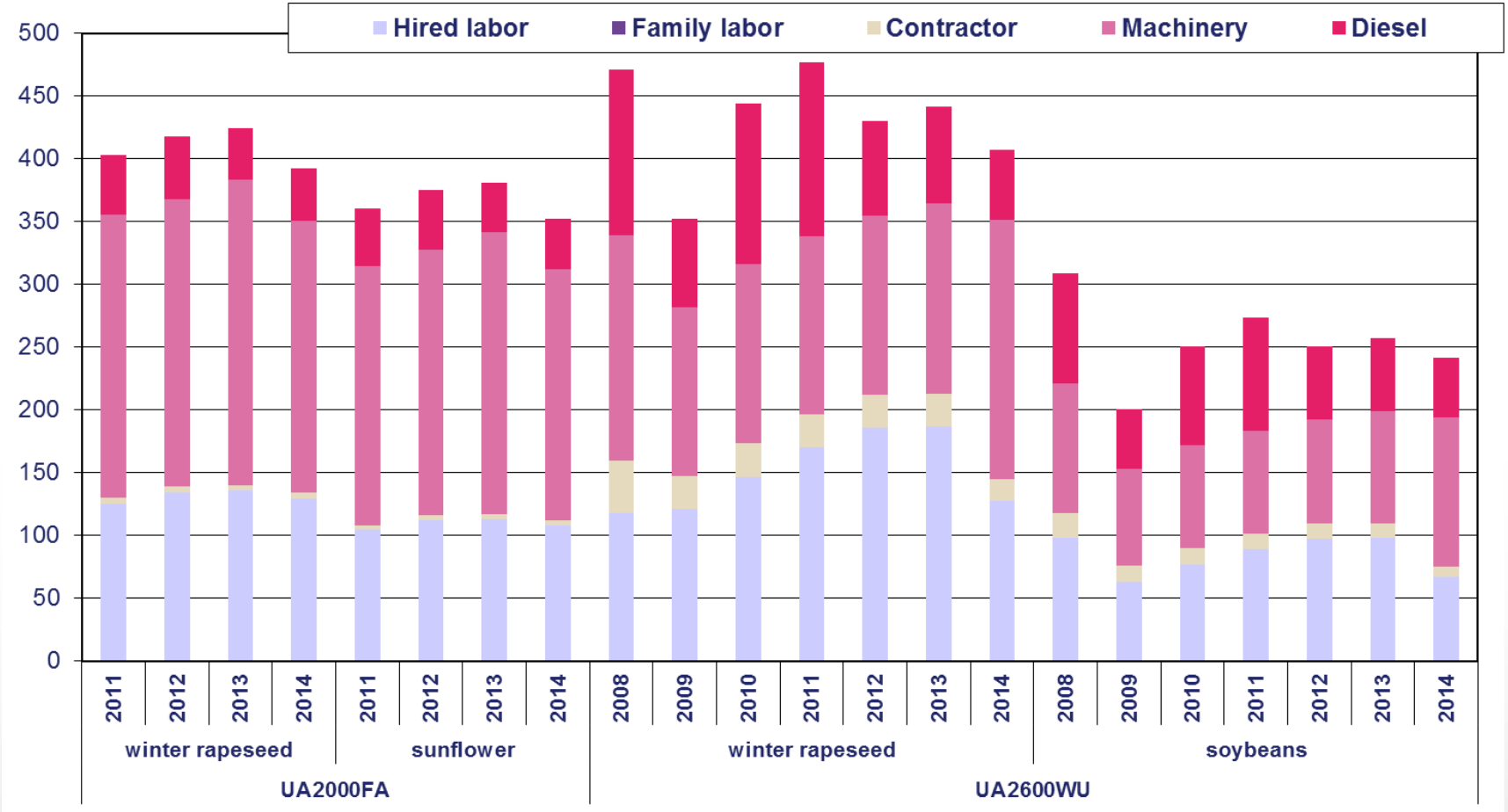
# Comparison Direct Cost (USD/ha)




1. Surprise: Ukraine growers do fertilize soybeans with nitrogen (app. 30 kg/ha).
2. Sunflower and soybeans more expensive in seed than rapeseed.

# Comparing Operating Cost (USD/ha)




1. Indep. farmer does treat sunflowers almost the same as rapeseed.
2. For the holding farm, soybeans is a “cheap jack” - both re. operations as well as re. input use



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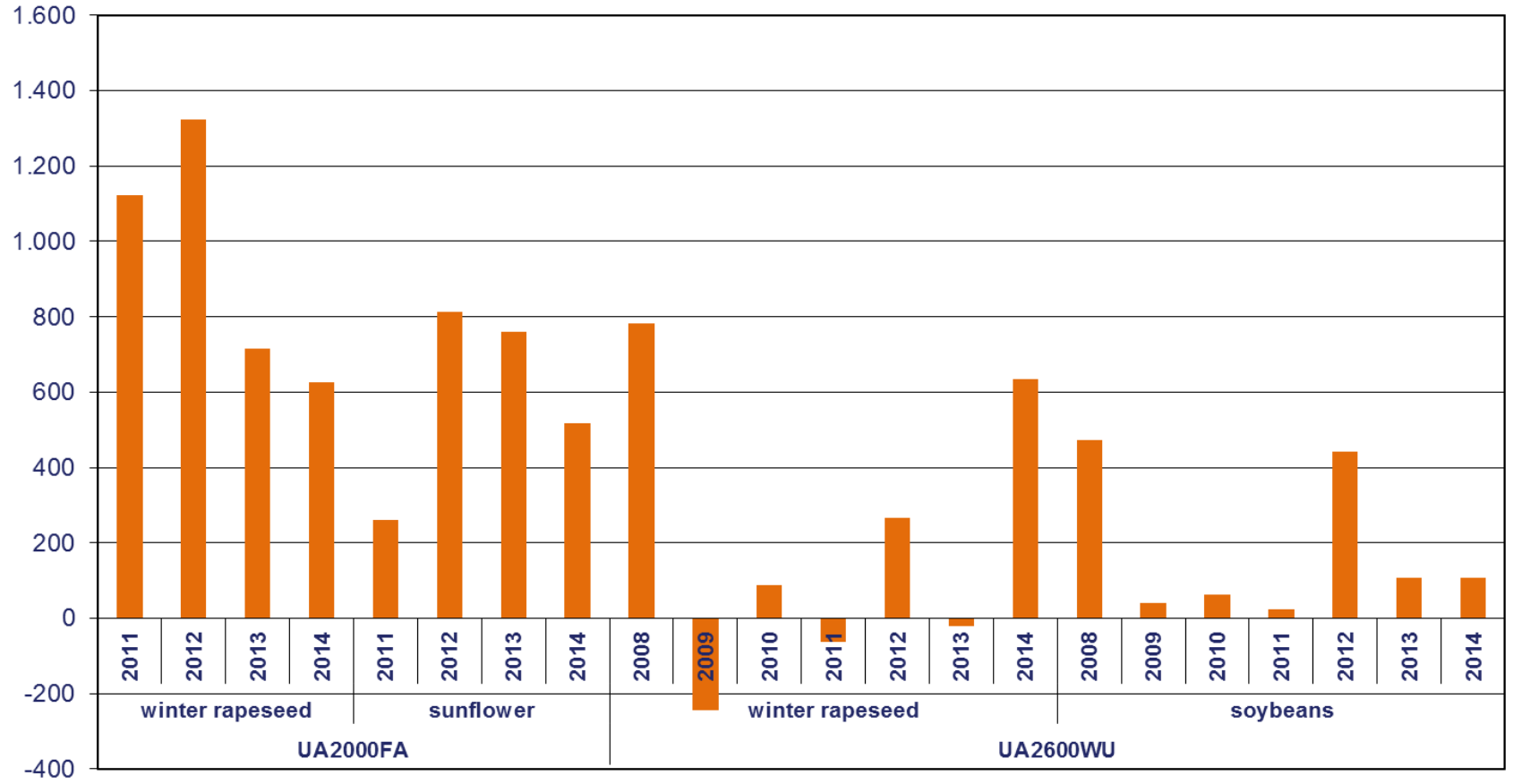
# Annual Return to Land (USD/ha)




1. Oilseeds are <u>the</u> cash cow for indep. farmer
2. Strong variation in return to land for OSR and Soy at the holding farm



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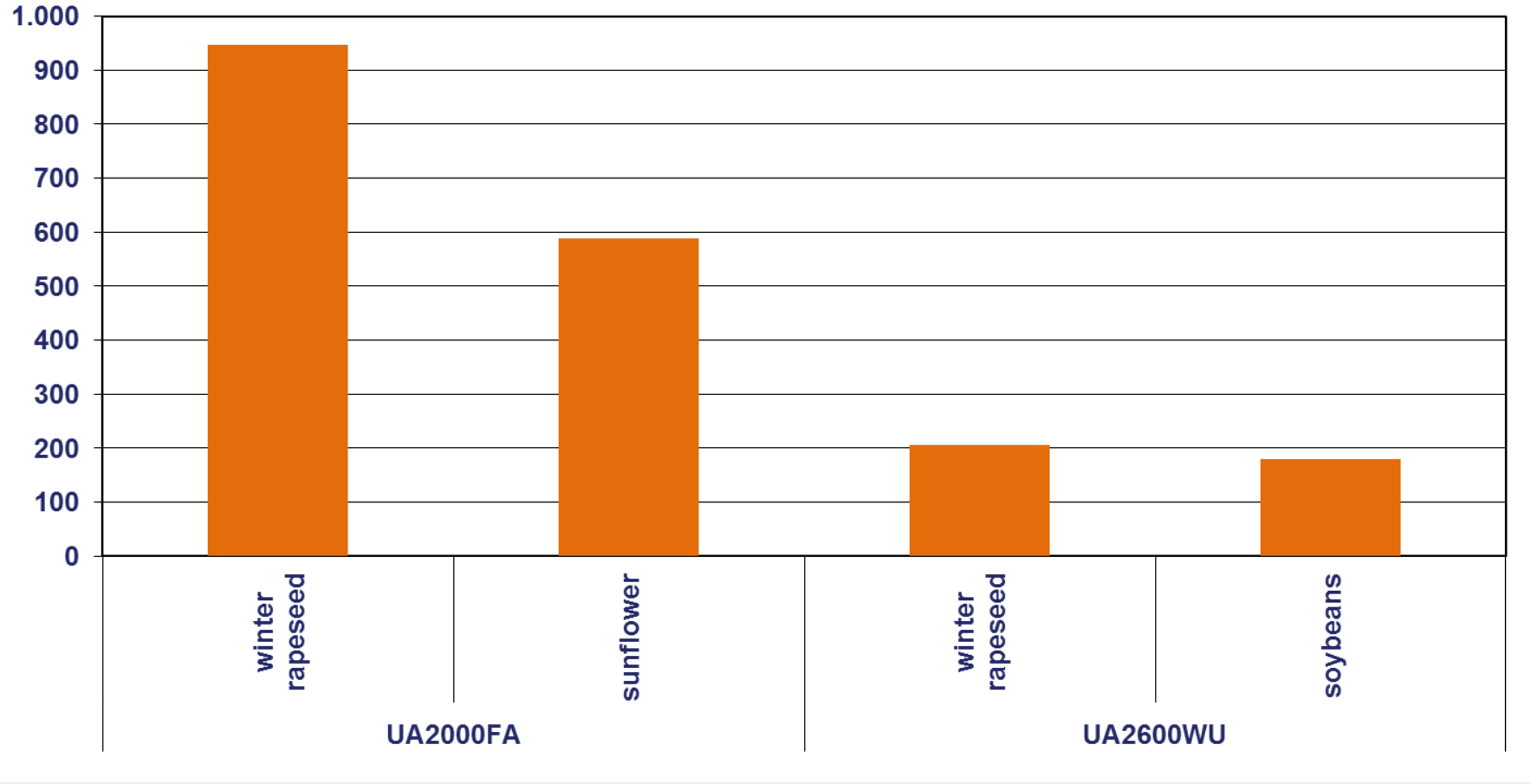
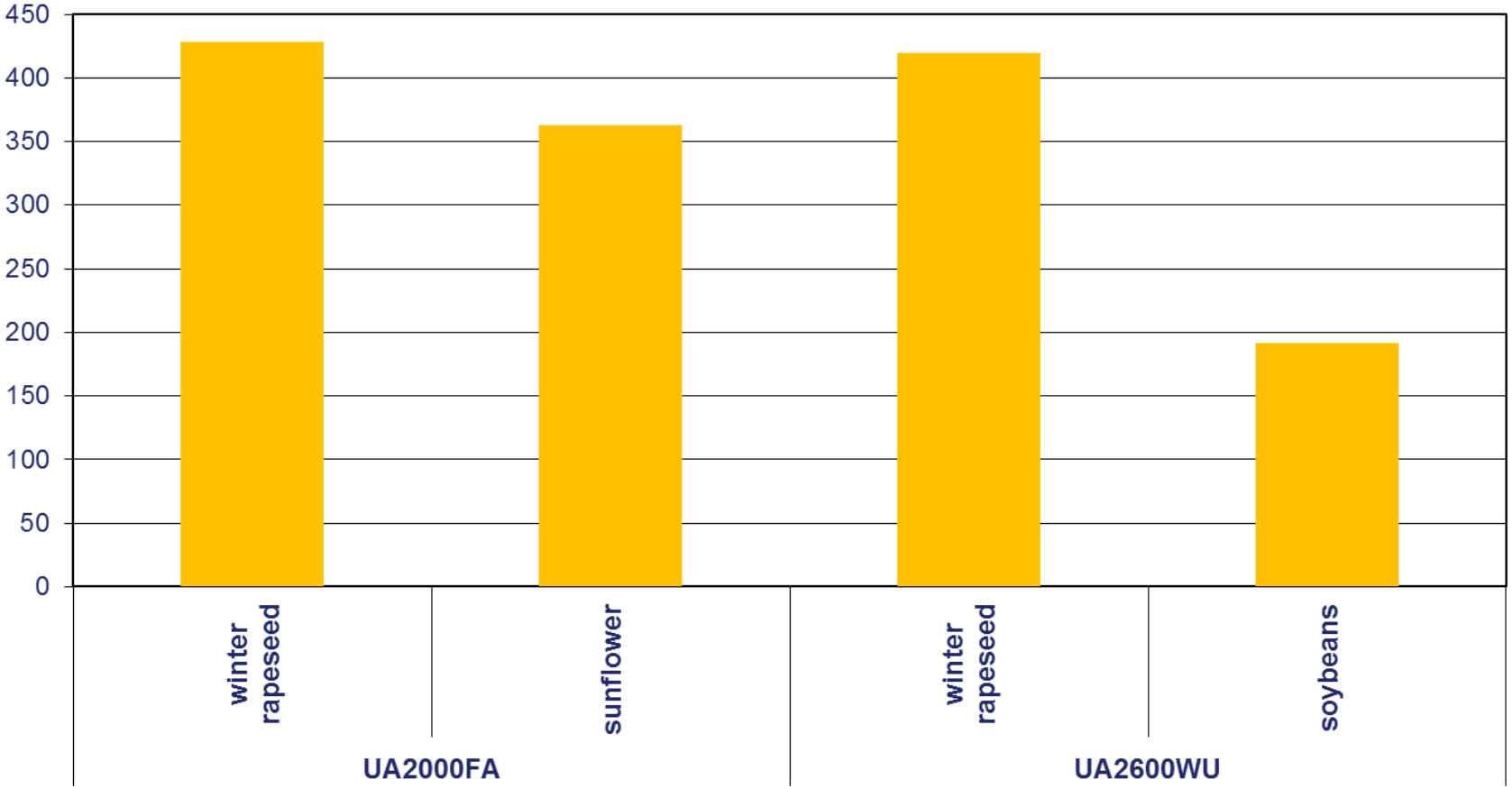
# Average Return to Land (USD/ha)



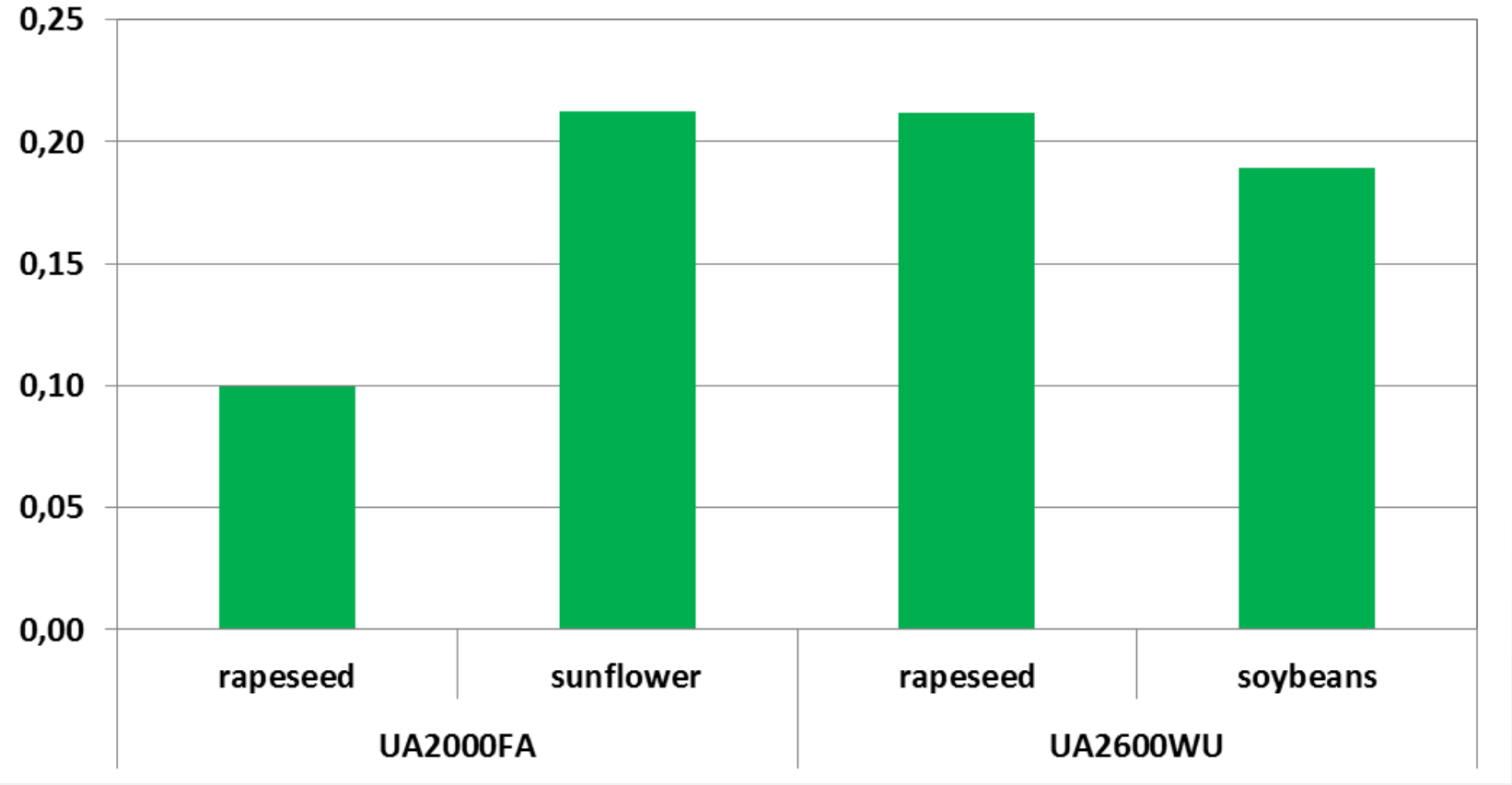

1. Independent Farm is much but better off with rapeseed when considering return to land only.
2. Holding farm should be more or less indifferent between rapeseed and soybeans re. return to land.

# Average Liquidity Needs for Inputs (USD/ha)



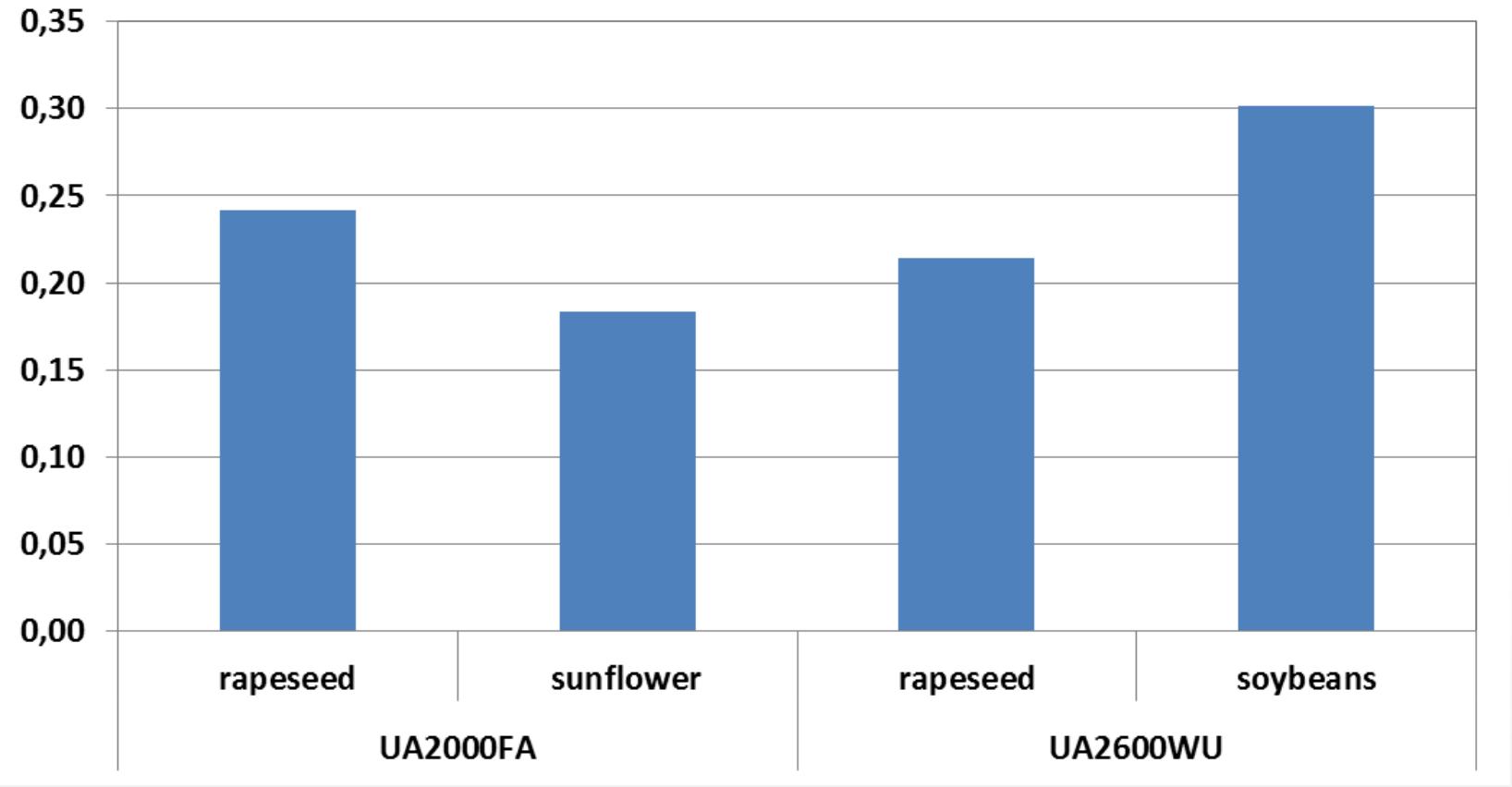

1. Liquidity needs are on both farms significantly higher for rapeseed as compared to sunflower or soy.
2. In case financing is/becomes an issue, rapeseed will come under pressure, esp. compared to soybeans.

# Yield Risks (coefficient of variation)




1. Yield risks for the indep. farm much less in rapeseed vs. sunflower.
2. The contrary is true for the holding farm comparing rapeseed vs. soybeans

# Price Risks (coefficient of variation)




1. Price risks for the indep. farm significantly higher in rapeseed vs. sunflower.
2. For the holding farm prices of rapeseed are less volatile than in soybeans.

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# Non-Monetary Considerations

| | Soybeans vs. Rapeseed (Holding farm) | Sunflower vs. Rapeseed (indep. Farmer) |
|---|---|---|
| **Market Risks** | Advantage for rapeseed (strong export links to the EU, timely receipts) | No significant differences |
| **Production Risks** | Advantage for rapeseed, soybeans tend to fluctuate more (less developed varieties) | No significant differences |
| **Rotational Issues** | Rapeseed attractive previous crop for wheat (time of seeding); late harvest of soy reduces wheat yields by 1 t/ha | Rapeseed is the better previous crop for wheat (which is the cash cow) compared to sunflower (+5% yield) |
| **Harvesting / Drying** | No difference in harvesting, soybeans require drying | No significant differences |
| **Liquidity** | Access to Western capital markets makes liquidity a non-issue | No significant differences |

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# General Conclusions

1. Rapeseed very much depends on wheat as the cash cow of farms – because it's a very attractive previous crop.
2. Contrary, in case corn becomes more important (availability of drying capacities) soybeans will benefit a lot.

# Conclusions for Top Performing Independent Farm

1. Rapeseed by far outcompetes sunflowers in return to land.
2. Intensity in sunflower only marginally lower than in rapeseed.
3. Production risks higher in sunflowers vs. rapeseed;
   Market risks are higher in rapeseed vs. sunflowers.
4. Economic performance of rapeseed vs. sunflower driven by
   (a) yield advantage and
   (b) price advantage.
5. Equilibrium yield sunflower (same return to land as rapeseed):
   4.5t/ha (+ 1 t/ha vs. current level)
   ⇨ Rapeseed very competitive crop!

# Conclusions for a Holding-Farm

1. Soybeans are the “cheap jack” crop.
2. No major differences in return to land between soybeans and rapeseed.
3. Production risks about the same,
   market risks in soybeans higher than in rapeseed.
4. Rapeseed will come under heavy pressure in case liquidity is/becomes a major issue.

# Knowledge is our business

## Thank you for your interest in *agri benchmark*.


**Dr. Yelto Zimmer**
- Head of ***agri benchmark*** Cash Crop team -

Thünen Institute of Farm Economics
Bundesallee 50, 38116 Braunschweig
Germany

| | |
|---|---|
| phone | +49 - 531-596-5155 |
| mobile | +49 - 173-5722723 |
| e-mail | yelto.zimmer@ti.bund.de |
| internet | www.agribenchmark.org |
| | www.ti.bund.de |