



Economic performance of Ukrainian agri benchmark farms

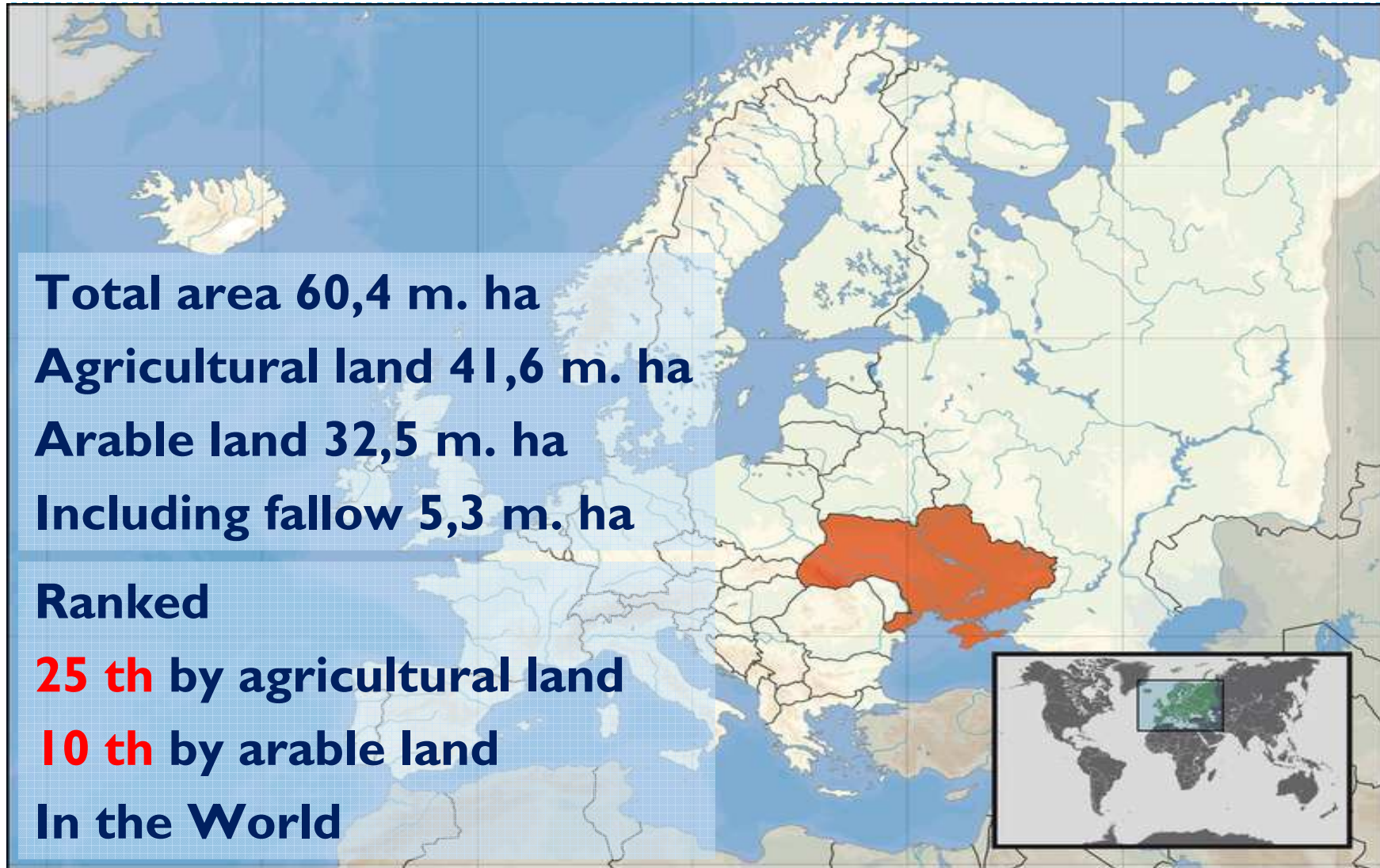
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Highlights

- ▶ Location: Ukraine, zones, farms
- ▶ Typical farms: introduction
 - ▶ Size and structure
 - ▶ Rotation and tillage
 - ▶ Machinery, labor force
 - ▶ Intensity of input usage
- ▶ Difference between typical and average Ukrainian farms

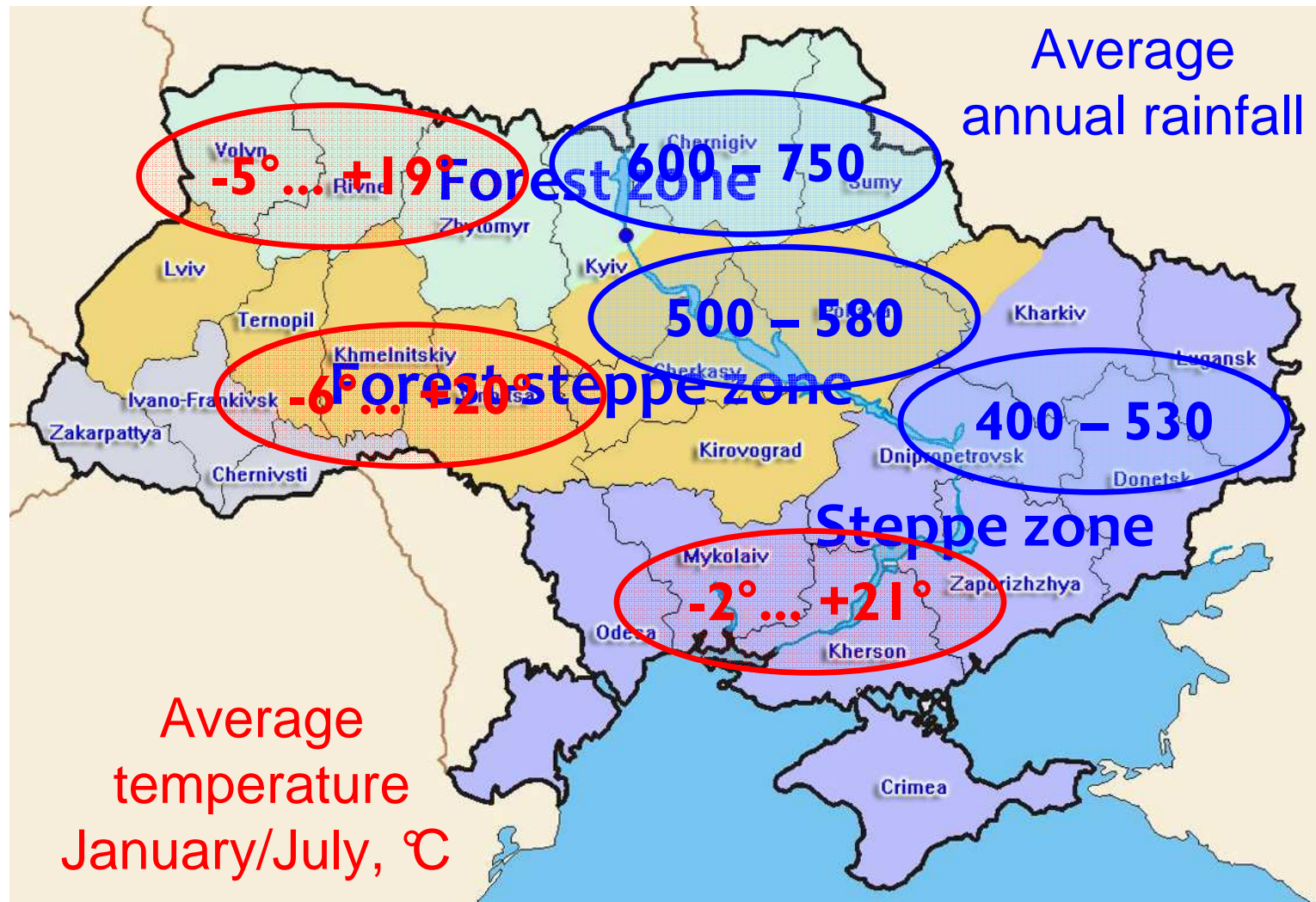


Ukraine on the map of Europe



Source: FAOSTAT, 2007; SSCU, 2009

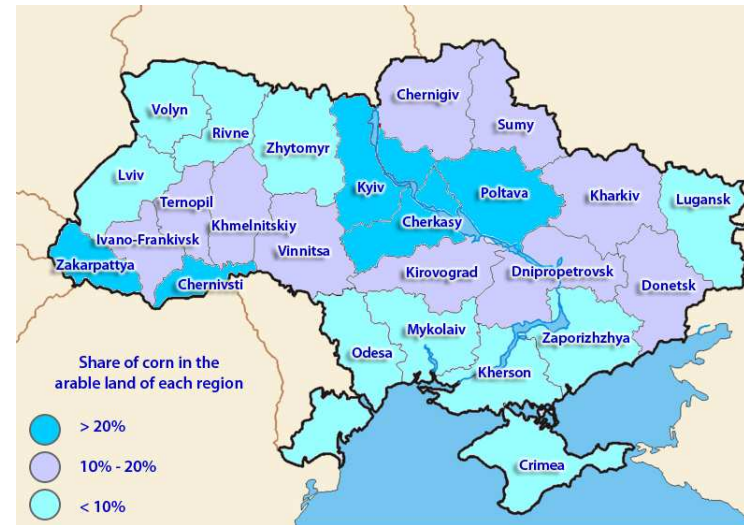
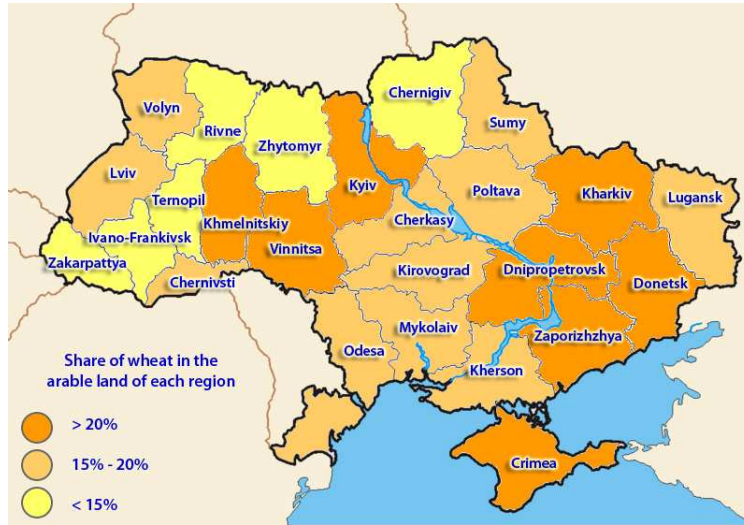
Agro climatic zones



Source: Hydro Meteorology Center of Ukraine, 2008

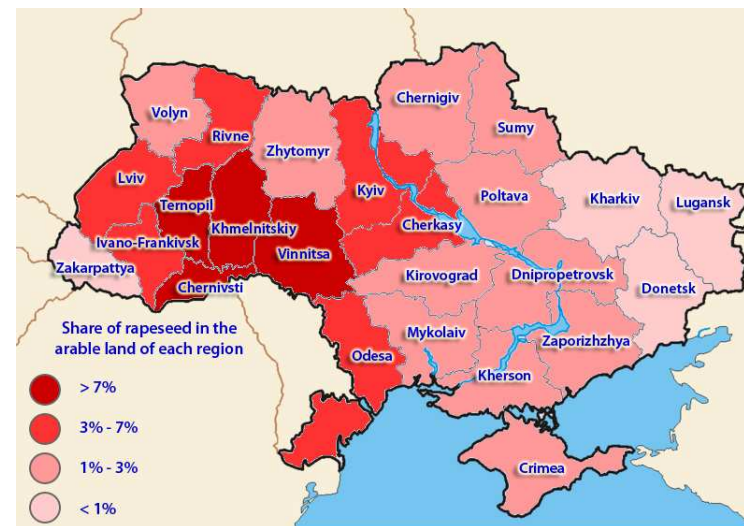
Crops distribution

w. wheat



corn

barley



rapeseed

Source: State Statistics Committee of Ukraine, 2009

Location of *agri benchmark* farms



Typical farms: size

UA2500ZH*

- ▶ Before 2006 it was post-kolkhoz independent farm
- ▶ In 2006 farm was merged by Agro holding with total 12000 of land
- ▶ In 2010 UA2500ZH expanded to **3100 ha** by taking over another 600 ha

UA6700PO*

- ▶ Large farm unit joined in one
- ▶ Lands have been collected from major lands of three former independent post-kolkhozes
- ▶ Farm belongs to a very large Agro holding



Typical farms: structure

UA2500ZH*

- ▶ Mixed production: cash crop, milk and swine production
- ▶ 2/3 of land allocated for cash crop production, the rest is for fodder crops
- ▶ Farm has its own drying and storage facilities

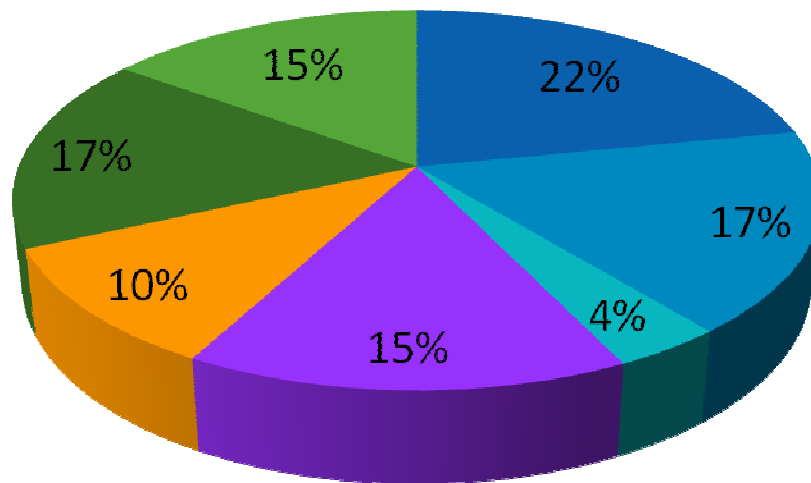
UA6700PO*

- ▶ 100% cash crop farm
- ▶ 2/3 of all land is under grains, the rest is under oil crops
- ▶ Farm has own drying and storage facilities



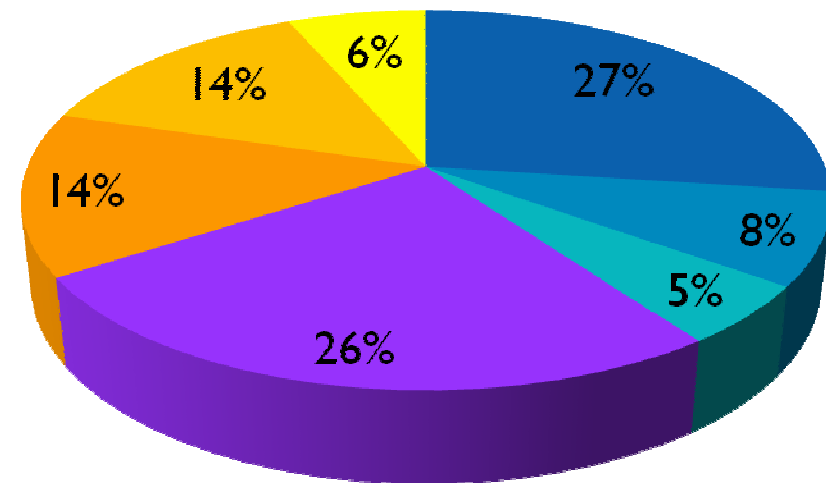
Typical farms: structure of crops

UA2500ZH*



- w. wheat ■ s. barley
- s. wheat ■ corn
- w. rapeseed ■ fodder grass
- corn silage

UA6700PO*



- w. wheat ■ s. barley
- w. barley ■ corn
- w. rapeseed ■ soybeans
- sunflower



Typical farms: rotation and tillage

UA2500ZH*

- ▶ Rotation is not fixed yet, because of continuing changes area, number of fields and crops
- ▶ Mostly low-till cultivation but part of land is ploughed
- ▶ Intensive high input production oriented for high yields

UA6700PO*

- ▶ Rotation of 7 crops, stable for few last years
- ▶ Mostly low tillage cultivation, don't use no-till technology
- ▶ Intensive high input production oriented for high yields



Typical farms: machinery and labor

UA2500ZH*

- ▶ Modern high productive machinery is used
- ▶ Two 280 h.p. Claas, four 90-100 h.p. and four 150 h.p. “soviet” tractors used
- ▶ Two 280 h.p. Claas and four 100-200 h.p. older combines in use
- ▶ Own fleet of 10 t. trucks
- ▶ Number of employees is 143 including 57 of non-CC ent.

UA6700PO*

- ▶ New modern equipment
- ▶ 500 and 280 h.p. Challengers and eight 80-100 h.p. locally made tractors
- ▶ Four 280 h.p. Claas combines
- ▶ In the harvest time 2-4 combines are contracted
- ▶ Eight 10-12 t. trucks are leased
- ▶ Number of employees is 102 of which 60 are seasonal



Typical farms: machinery

UA2500ZH*



UA6700PO*



Typical farms: intensity of production

UA2500ZH*

- ▶ High intensity to achieve high yields
- ▶ N application 130 kg for wheat, 170 kg for rapeseed, 150 for corn and 70 for barley
- ▶ P&K by 70 kg for rapeseed, and 40-90 kg for rest crops
- ▶ Plant protection cost varies from 30 to 50 USD/ha

UA6700PO*

- ▶ High intensity to achieve high yields
- ▶ N application ~100 kg for wheat, 140 kg for rapeseed, 50 kg for barley
- ▶ P&K by 20-30 kg for wheat and rapeseed
- ▶ Plant protection cost is 20-30 USD/ha



Average Ukrainian farm

- ▶ Acreage about 2000-2100 ha
- ▶ Mixed production with 2/3 of cash crop income and 1/3 income from livestock
- ▶ Main crops are the w. wheat, s. burley, corn, rapeseed or sunflower, silage corn, other minor crops and 15% of hay or pasture
- ▶ Mostly reduced and conventional tillage
- ▶ No fixed rotation
- ▶ Financial shortage
- ▶ Low fertilizer application (N–38 kg, P–11 kg, K–7 kg)



Average Ukrainian farm

- ▶ Limited plant protection application
- ▶ 4/5 of all machinery is 15-20 years old, 1/5 is a modern equipment
- ▶ All labor is hired, middle level educated, low share of employees can use modern machinery properly (but share increases)
- ▶ Large number of employees, up to 50% of them are seasonal workers



Average Ukrainian farm: yields (2005-2009)

Winter wheat	2,9 t.
Summer wheat	2,3 t.
Winter barley	2,5 t.
Summer barley	2,2 t.
Corn	4,3 t.
Rye	1,9 t.
Rapeseed	1,9 t.
Sunflower	1,5 t.
Soybeans	1,7 t.



Thank you for your attention!

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