

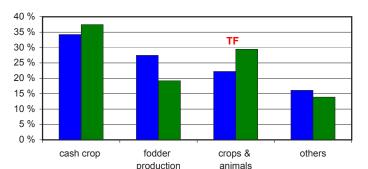


The typical farm DE360OW in the region Ostwestfalen, Germany



Region "Ostwestfalen" (green shaded area, see map) in northwest Germany consists of 6 counties: Herford, Bielefeld, Lippe, Höxter, Minden-Lübbecke (only to 30% since hilly) and Paderborn (only to 30% since low land close to river).

Farm classification Ostwestfalen (2007) - based on gross margin shares



Source: Statistisches Bundesamt 2010

■ % total farms

Three major farm types can be distinguished in Ostwestfalen:

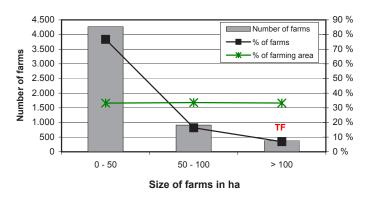
Type of farm

■ % total agricultural land

- 1. Specialized cash crop farms represent with 34% the largest group of farms and cultivate 37% of the agricultural land in the area.
- 27 % of farms generate their gross margin predominantly through fodder crops used either for dairy cows or cattle.
- Further 30% of land is cultivated by mixed farms engaged in crop and livestock production.
- 4. The remaining group of other farms is either specialized in horticulture or intensive livestock production.

Since animal husbandry is of great importance in the region, the DE360OW farm (TF) was designed as a cash crop farm with substantial share of hog production.

Farm structure - Ostwestfalen (2007)



Source: Statistisches Bundesamt 2010

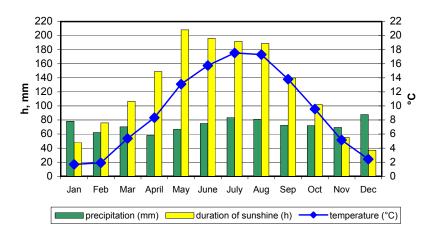
64% of farms in Ostwestfalen generate the majority of their household income outside agriculture. The remaining 36% of farms for which agriculture is the major income source, cultivate 70% of the land. Their average size is 59 ha per farm. The farm size structure reflects part of this picture. 77% of all farms in the region have less than 50 ha but on the other hand farm only 33% of the farming area. The larger farms of more than 100 ha make up only 7% of the farming population however work likewise on 33% of the agricultural land.

One of the goals of *agri benchmark* was to establish a typical farm (TF) that can exist in the long-run given the current and future framework conditions. Therefore, a rather large farm with 360 ha agricultural land was considered.





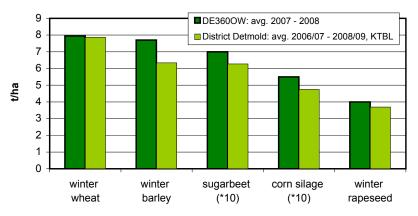
Mean climate data 1978 - 2008 Ostwestfalen



The elevation of the region ranges from river valleys (25 m) up to 800 m in hilly areas. The climate is moderate with monthly average temperatures from 1-17°C across the year. Total rainfall during the year accounts for nearly 900 mm. Precipitation is rather evenly distributed ranging between 60 and 90 mm over the months. Duration of sunshine is highest during the summer period between May and August when sun can shine up to 200 hours during one month.

Source: Deutscher Wetterdienst 2010

Comparison of average yields

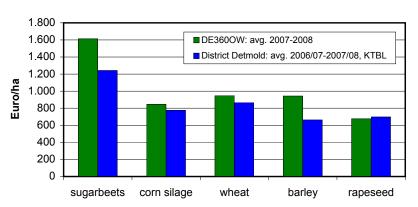


The following graph refers to the crops grown by the typical farm. In all 5 crops, the agri benchmark farm obtains slightly higher yields than the regional average which is calculated across all farm types and sizes. This is understandable since the district Detmold 1 has a rather heterogeneous structure with many farms not specialized in cash crop farming or facing less favorable climatic/natural conditions.

1 District Detmold contains the 6 counties of the agri benchmark region "Ostwestfalen" plus Gütersloh.

Source: KTBL 2010, agri benchmark 2010

Gross margin comparison



Regarding economic terms, gross margins (revenue – direct costs) are compared. For comparison the standard gross margins made available by KTBL for the district Detmold in North Rhine-Westphalia (average of the years 2006/07-2007/08) were considered. Except rapeseed the agri benchmark farm has always higher gross margins, regarding sugar beets (+30%) and barley (+40%) even substantially higher. The reason behind this are higher yields (see left) as well as higher market revenues.

Source: KTBL 2010, agri benchmark 2010

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