



## Learn more about Cereals and Pulses

### WHICH CROPS ARE COVERED ?

The most important crops are:

CEREALS							PULSES	
Wheat	Barley	Triticale	Oats	Wheat (Durum)	Rye	Rice	Pea	Field bean
Feed							Feed	
Food							Food	
Examples: Bread, pastry		Examples: Malt		Examples: Pasta, Semolina		Examples: Breakfast flakes		

The ESA Section for Cereals and Pulses (SCP) addresses cereals covered by the Seed Marketing Directive for cereals: 1966\_402 and pulses covered by the Seed Marketing Directive for fodder crops: 1966\_401.

# Key figures and estimated value on seed and fodder production

In the EU cereals are produced on more than **57 million hectares** producing more than **320 million tons of grain**.

With approximately 24 million hectares, **wheat** is by far the **largest cereal crop in the EU**. On a global level wheat is the third largest crop after corn and rice. The charts to the right contain the statistics on the area of production (\*) and the production of certified seed (Escaa) for harvest 2014.

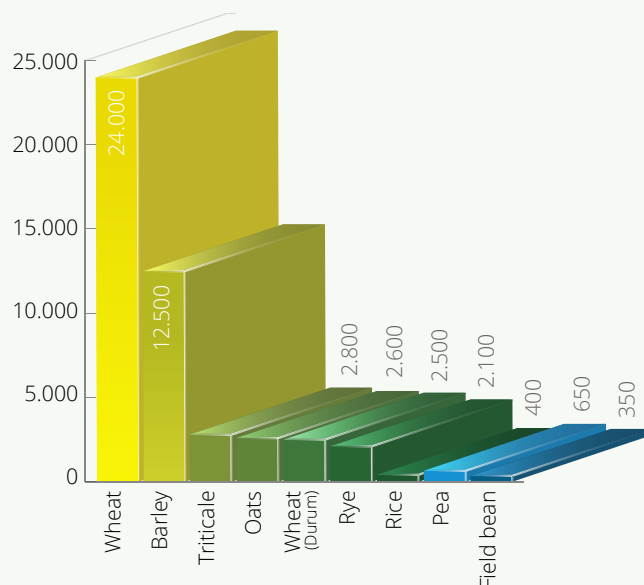
Due to the greening measures according to the new Common Agricultural Policy **the area of pulse crops is expected to increase**. Around 50% of the area of production is produced from Farm Saved Seed (FSS). However the FSS usage differs significantly depending on the crop and country.

The estimated **value of certified seed** for sowing of cereals and pulses in the EU28 is estimated at **2.5 billion Euro** (figure 1 & 2).

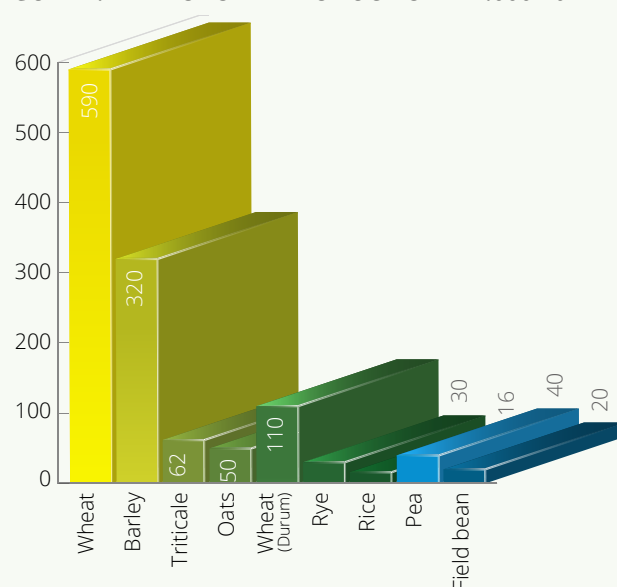
The **value of commodity production** of cereals and pulses in the EU28 is estimated at approximately **40 billion Euro** (figure 3).



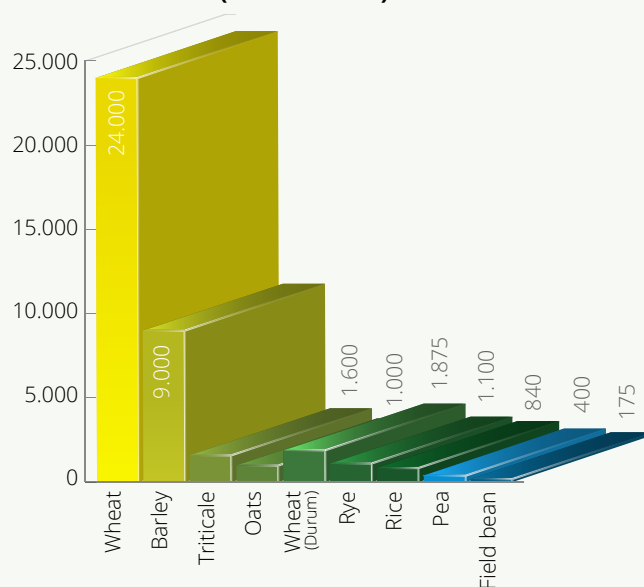
**FIGURE 1: AREA OF GRAIN PRODUCTION X 1.000 ha**



**FIGURE 2: AREA OF SEED PRODUCTION X 1.000 ha**



**FIGURE 3: VALUE (COMMODITY) X MILLIONS €**







## Research and innovation

### Breeding goals and achievements

Since the early 20<sup>th</sup> century breeders have constantly improved yield in order to provide farmers with higher performing varieties. Since the 1970's, breeding also focused on the needs of the downstream industry, such as millers and bakers. Breeders targeted improving characteristics such as protein content and specific baking qualities.

Additional targets in breeding are abiotic stress factors such as lodging, drought resistance and pest resistance, in order

to achieve the general goal of further yield increase in various geographies all over Europe.

### Methods

The basic selection of new improved varieties in the field is still the most essential activity in the breeding process. In addition breeders benefit today from highly sophisticated tools such as molecular markers and genotyping as well as advanced statistics and data management tools. The development of hybrid breeding programmes in the past decades provides hybrid varieties with further increased yield potential to farmers all over

European countries in various climates.

### Value capture



In past decades plant breeding has resulted in a yield increase of on average 1% per year. This yield increase has slowed down in the past years to approximately 0.5 %. As financial and time investments are growing to create new sophisticated varieties, the return on investment for breeders is critical and must be secured. Only a sound financial basis for breeding companies ensures further innovation for cereals and pulses.









## What is the Seed Industry in Europe?

ESA has more than 30 national seed associations in 28 countries as members and more than 50 seed companies as direct ESA company members. In relation to Cereals and Pulses 24 Association members (indicated on the map with: , , etc.) are active involving more than 2.500 companies on national level.

ESA has 14 companies (indicated on the map with: , , etc.) as direct members of which 10 are family owned private companies, 2 cooperatives and 2 companies listed on the international stock exchange.

[Click here](#) or on the map below for further details on these associations and companies.

