

Food and Fuel Fact Sheet

In the discussion on food versus fuel often myths are presented as facts and many facts are left out of the debate. This paper lists a number of facts with the objective to have a balanced and objective discussion.

Fact: In the EU the amount of grains used for ethanol production is negligible; the volume is so small that it is impossible to have a significant structural impact on price setting (either inside or outside the EU)

In 2012 the EU will use an estimated 3 million tonnes of maize (corn) for ethanol production: this represents only 1% of total EU grain production. In 2012 the EU will use an estimated 4.6 million tonnes of wheat to produce ethanol: that is only 1.5 % of total EU grain production. These are gross grain use figures and include the amount of grains used to produce both ethanol and important animal feed co-products. In net terms this is 2 million tonnes of maize and 1.5 million tonnes of wheat. For animal feed alone the EU is using 166.5 million tonnes¹.

If 1 000 kilos grain is used for ethanol production it will produce 294 kilos of ethanol, 330 kilos of high protein animal feed, 276 kilos of CO₂ - an important feedstock for the food sector (like fizzy drinks), and 100 kilos of water that has been extracted from the grain. Would need to add something on sugar beet. This means that about 1/3 of the grains used for ethanol production actually enter the Feed/food sector, and not the fuel sector. Ethanol production only uses the grain starch and the proteins the healthy components of grains, that nourish humans, are passed on to the feed and food sectors.

Globally, world ethanol production currently accounts for gross 4% of total cereals use, which represents 3% net global grain use when ethanol co-products are taken into account. Therefore only 3% of global grains are actually used to produce ethanol.

The USA produces 10 times more ethanol than Europe. The EU uses a variety of feedstock (different types of grains, sugar beet, straw) whereas in the USA it is corn only.

In May 2008 the EU Commission issued a Communication on high food prices. The Commission found that the EU biofuel production then and the new 2020 10% renewable transport fuel target had little impact on 2007/8 global food prices (main reason: less than 1% of EU cereal production used for the production of ethanol and long lead-times make it unlikely that there was an impact on 2008 prices).

These findings were confirmed in another communication on *Food Prices in Europe* adopted on December 2008 following additional analysis on the reasons behind the 2008 food price fluctuations. In this communication the Commission confirmed that the surge in agricultural commodity prices resulted from a combination of structural and temporary factors among which the emerging biofuels market had a rather insignificant impact.

¹ European Commission.

Fact: This year's global corn production is still historically high; also EU wheat production is high

According to the U.S. Department of Agriculture (USDA), this year's global corn production will be 849 million tonnes, projected to be the second largest crop on record.

The European Commission's forecast for this year's wheat production is slightly lower than the previous year (134.8 versus 136.7 million tonnes). This production is not far from 2010 (135.5) and 2009 (137.1). In 2008 we had an exceptionally high output of 149.4 million tonnes as a result of the higher prices the year before.

Fact: EU ethanol production does not depend on one crop, like in the US

In Europe lots of different agricultural crops and materials are used to make ethanol meaning that ethanol production does not dominate one crop's use or another. In addition to grains, ethanol produced in Europe is also made from sugar beet. When 1 tonne of sugar beet is used to produce ethanol it yields 750 kg of water, which is recycled in the production process, 85 kg of ethanol, 75 kg of CO₂, which is sold to the food sector. The ethanol yield of sugar beet is lower but on the other hand the yield of sugar beet per hectare is high: sugar beet 80 t/ha whereas wheat varies between 4 and 12 tonnes/ha depending on the area.

Fact: EU ethanol is also produced using various non-food materials

Increasingly ethanol production is using non-food materials. The global production of cellulosic ethanol, while still quite small, is steadily increasing. Therefore, the argument that biofuels raise food prices because biofuels utilize food crops is simply not true, because some biofuels do not utilize food crops at all.

Fact: Food prices are dictated by a perfect storm of factors, the role of biofuels is minimal

Rising food prices can be blamed on long-term issues such as rising oil prices and climate change but can also be aggravated by a multitude of short-term measures such as financial speculation in commodities markets, grain export bans, panic buying, drought, war, rising wages in the farm and food sectors, increased production costs, and increased meat consumption in Asia, which places further demands on the global feed supply.

In 2010 a World Bank research paper found that biofuels played little role in the 2007/08 commodity price hikes and blamed rising energy prices and financialisation of commodity markets. A 2011 JRC report revealed that the primary factors driving wheat price volatility are currency exchange rates and oil prices, while ethanol has no major role in driving wheat or maize price volatility². In May 2008 before the EU Renewable Energy Directive was introduced the EU Commission issued a Communication on high food prices. The Commission found that the EU biofuel production then and the new 2020 10% renewable transport fuel target had little impact on global food prices.

Fact: EU arable land taken out of agricultural production is growing year-on-year

In the EU, the agricultural sector has experienced consistently over the past decades, a steady and significant loss in its total utilized arable land area³. That process is continuing. In terms of land use, the main effect of EU biofuel consumption has been the reuse of recently abandoned agricultural land, or a reduced rate of land abandonment.

² Joint Research Council, Analysis of Agricultural Commodity Price Volatility, 2011.

³ UN Food and Agriculture Organisation.

The European Commission's recent CAP proposal to prohibit 7% of agricultural land from agricultural production will result in another 3.7 million hectares of land that will no longer be used for growing crops. This result represents 20 million tonnes of cereals less being produced, a volume which is equal to what the EU will export this entire year.

Fact: There is enough food produced but we waste too much of it

According to a report by the European Parliament, Europe currently wastes up to 50% of its food; a massive figure that is expected to rise even further by another 40% by 2020⁴. In 2010 the UN revealed that 33% of global food production is wasted every year, equivalent to more than half of the world's annual cereals crop⁵. Instead of attacking biofuels policies, policies that in reality only utilize nominal amounts of crops, it would be much more productive to introduce policies aimed at reducing such, often decadent, food wastage.

Fact: The cure for high prices is high prices

Farmers and agricultural production respond to market prices. If commodity prices for certain crops fall then there is less incentive for farmers to produce that certain crop. Stopping production of ethanol, regardless of which type of grain used, will reduce crop prices minimally: even a complete waiver of the US RFS biofuel policy would only cause a 4.6% reduction in corn prices⁶. Why? Even with the current drought, the USDA's most recent forecast for this year's US corn crop is 10.78 million bushels, the eighth largest on record. The current high prices will result in higher farm production next year that will consequently lead to lower prices - as more food will be produced due to the price incentive that farmers experienced before the harvest.

Fact: Exporting food to developing countries will not help; investment in agriculture will

The belief that exporting food or lower cereal prices will help address the hunger problem in the world is correct for the very short term, but it is not bringing any structural solution to the hunger question. Changing the end-use of 4% of all cereal production will not offer a long-term solution either: a new equilibrium between supply and demand will be found and the next drought will bring the world the same problems that we are facing now and we have been facing already for decades. Only investments in improving the agricultural methods in developing countries will really deliver a structural solution. Taking biofuels out of the chain is nothing more than window dressing.

⁴ [European Parliament, 2012.](#)

⁵ [UN Food and Agriculture Organisation, 2011.](#)

⁶ [Iowa State University, Centre for Agricultural and Rural Development.](#)