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France

Bio-Fuels

Impacts on Oilseed Industry following Biofuel Boom

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Approved by:
M. Melinda Meador
U.S. Embassy

Prepared by:
Marie-Cecile Henard

Report Highlights:
Non-food oilseed acreage (rapeseed and sunflower seed) is expected to increase from 370,000 ha in 2005 to 1.6 million by 2010 due to increased demand from biofuel production. As a result, increased supply of oilseed by-products, rape meal and glycerin, is causing some changes in France. Domestic demand for rape meal in cattle and swine feed has the potential to double from 1.5 to 3 million MT. Glycerin's over-supply and low world price is causing the industry to find new markets to boost demand.

Includes PSD Changes: No
Includes Trade Matrix: No
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paris
[FR]

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Executive Summary

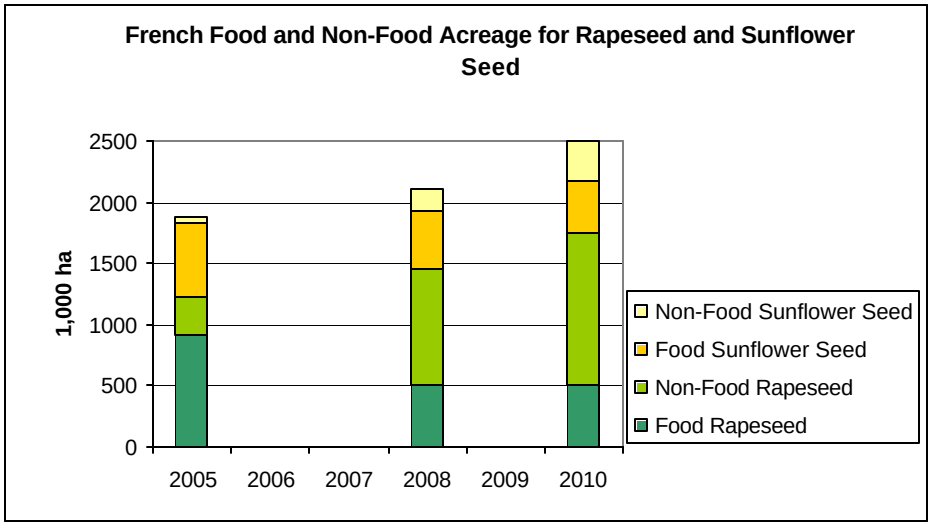
Demand for raw materials used in biodiesel production is expected to increase the amount of French acreage devoted to the non-food market. Rapeseed will be the primary beneficiary of this increase (expectations are from 320,000 ha in 2005 to 1.25 million ha by 2010) but sunflower seeds (with an estimated growth from 50,000 ha to 330,000 ha by 2010 also), particularly of the oleic variety, are also expected to benefit from non-food market demand.[1]

Biodiesel production from rapeseed produces two main by-products: rape meal and glycerin. In France, rapeseed meal is increasingly replacing soybean meal in dairy cattle feed rations, and research continues on its substitutability in swine feed. Rapeseed meal use in animal feed has the potential to double from 1.5 million MT in 2004/05 to 3 million MT in the future. Due to an oversupply in the market, glycerin producers are also looking to expand their product as a substitute in animal feed.

Increasing Non-Food and Oleic Sunflower Seed Production

France is a major European sunflower seed producer, with 1.3 to 1.5 MMT produced annually out of 4 MMT total average EU production. In 2006, oleic sunflower seeds, which contain higher concentrations of oleic fatty acid than standard varieties, covered 50 percent of the total French sunflower seed acreage (319,000 ha out of 638,000 ha), with 86 percent dedicated to the food market and 14 percent dedicated to the non-food market. Non-food use of sunflower seeds is growing in France as sunflower oil (similarly to rapeseed oil) is used to process methyl ester, which is the primary type of biodiesel produced in France.

The projected increase in rapeseed and sunflower seed acreage for food and non-food by 2010 is as follows: [2]



Source: PROLEA

[1] Please see reports FR7001, E36122 and E36146 for the quantitative changes in French and EU oilseed production resulting from increased biodiesel production and consumption.

[2] According to the French oilseed industry (PROLEA)

Growing Substitution of Soybean Meal with Rapeseed Meal

France's utilization of rapeseed for biodiesel produces, as a by-product, large amounts of rapeseed meal. This bounty has, in turn, presented an opportunity to explore additional uses, including as a protein source in animal feed. From 2003 to 2006, rapeseed meal in animal feed increased from 14 to 25 percent of total meal consumption in France, at the expense of soybean meal, which declined from 73 to 64 percent.

However, rapeseed meal and soybean meal differ in their composition and are not perfect substitutes: rapeseed meal has a lower protein content (34 percent) than soybean meal (45 percent), and a higher cellulosic content (12 percent vs. 5 percent). Thus, its digestibility differs among animal species.

In 2005/06 most rapeseed meal was used in cattle feed (38 percent dairy cattle and 23 percent meat cattle), followed by swine (29 percent). Very little meal was used in poultry feed (8 percent), which, by contrast, used the largest percentage of soybean meal (73 percent). [3]

Estimates are that the French livestock, swine and poultry sector could absorb up to 3 million MT of rapeseed meal, from 1.5 million MT in 2004/05, as indicated in the table below (in million MT):

	Consumption of Rapeseed Meal in 2004/05	Potential Increase in Ruminant Consumption	Potential Increase in prices drop by 10%	Total Potential Consumption
Compound Feed	1.0	1.0	0.2	2.2
Farm Feed	0.5	0.3		0.8
Total	1.5	1.3	0.2	3.0

Source: French Research Center on the Economy and Organization of Animal Production (CEREOPA)

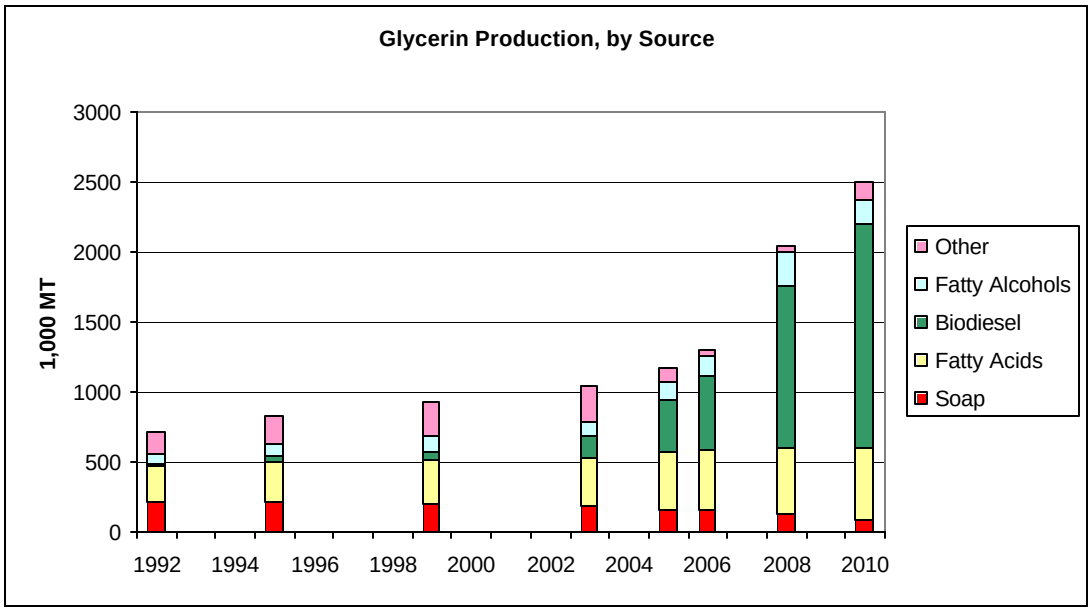
Exploring New Markets for Booming Glycerin Production

Glycerin is a by-product of the chemical reaction (transesterification) in which vegetable oil is processed into vegetable oil methyl ester, the main type of biodiesel produced and used in France. Every 10 MT of biodiesel produces 1 MT of glycerin.

In 2006, biodiesel production became the primary source of glycerin supply in the world, accounting for 41 percent of total production, and is expected to grow to 65 percent by 2010.[4] While glycerin production had grown roughly 4 percent per year until 2005, it is expected to grow by 10 to 25 percent annually from 2006 to 2010. Annual growth in consumption of glycerol (mainly by the cosmetic and pharmaceutical industries) is estimated at 3-4 percent, which is significantly below the expected growth trend in future production.

[3] According to the French Research and Study Center for Economy and Organization of Animal Production (CEREOPA)

[4] According to the financial branch of the French oilseed grower organization (SOFIPROTEOL)



Source: SOFIPROTEOL

In response, world glycerin prices have declined sharply. According to SOFIPROTEOL, spot prices for bulk glycerin in Europe and the United States have declined from 1700 euros per MT and 100 ct/lb, respectively, in 1995 to 450 euros per MT and 30 ct/lb in 2006.

Glycerin producers are exploring two new major markets: polyol substitution (e.g., in tooth paste) and animal feed, especially for the swine and poultry sectors.

Related reports:

FAS Paris:

Report Number	Title	Date Released
FR7001	French Biofuel Production Plans	1/5/2007
FR6016	French Rapeseed Production Continues to Increase	3/09/2006
FR6005	French Biofuel Production Booms	1/20/2006
FR5046	France explores Substituting Soybean Meal with Rapeseed Meal	6/30/2005

FAS USEU Brussels:

Report Number	Title	Date Released
E36146	Oilseeds and Products Update	12/20/2006
E36102	Biofuels Annual	7/11/2006
E36092	Oilseeds and Products Annual	6/11/2006