

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

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POLICY

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Italian Biofuels 2011

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Bio-Fuels

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Report Highlights:

The Italian biofuels industry is slowly developing to meet the EU's 2020 mandatory 10-percent biofuel use in transportation fuels. However, lack of support from the government, stiff competition from South America, and a complicated and uncertain EU and Italian legislative framework are severely hampering the industry's growth. Italian biodiesel output is expected to fall some 32 percent to about 500,000 MT in 2011 while the bioethanol fuel production is still not relevant.

General Information:

Policy and programs

The Renewal Energy Directive (RED) has been transposed into the Italian national legislation on March 3 with the 28/2011 Decree while the EC Directive 30/2009 has been transposed on March 31 with the 55/2011 Decree. According to the Italian legislative practice, any provision contained in these decrees has to be implemented through another specific decree. All the provisions referred to biofuels (energy from renewable sources in transport, sustainability criteria, etc.) will be implemented and become effective on 01/01/2012. The decree sets Italy's obligatory share of biofuels in the car fuel mix at 4.0 percent for 2011 and is due to rise to 4.5 percent in 2012 and to 5.0 percent by 2014 in order to reach the 10 percent target by 2020.

From 01/01/2012 on, the biofuels' energy contribution will be enhanced:

- In case they are obtained by feeding stocks produced in the EU and processed in an EU plant.
- In case they are released out of the delivering network ("privately consumed") as long as the biofuels share is above 25 percent and sustainability criteria are fulfilled.

Moreover, according to the decree (and to Art. 21 of the RED), the contribution made by biofuels produced from wastes, residues, non-food cellulosic material, and ligno-cellulosic material shall be considered to be twice that made by other biofuels (double counting).

As for the sustainability criteria, the 55/2011 Decree establishes that economical operators have to comply with a National System of sustainability certification. Therefore, the Italian Ministries of Environment along with the Ministry of Agriculture and Economic Development are currently building a specific decree setting up the National certification schemes for biofuels. This decree is expected to be ready and in effect by the end of the year. Besides the imminent National Certification Scheme, the economic operators can apply to a voluntary certification scheme approved by the EU. So far, only three Italian biodiesel plants belonging to the companies Novaol and OXEM have obtained the 2BSvs international certification, which guarantees all the sustainability criteria are fulfilled.

The Italian biofuels sector does not benefit from any kind of direct subsidies or tax relief quota. In 2011, the government removed all the excise exemptions for biodiesel and bioethanol indeed.

For more information about EU-27 biofuels policy, regulations, and statistics please refer to the following EU report: [EU-27 Annual Biofuels Report | Bio-Fuels | The Hague | EU-27 | 6/24/2011](#).

Italian transport fuel consumption – 15 years outlook ('000 MT)

	2010	2011	2012	2015	2020	2025
Gasoline	9,762	9,080	8,680	7,840	7,100	6,915
Diesel	25,994	26,750	27,045	27,765	26,660	26,185

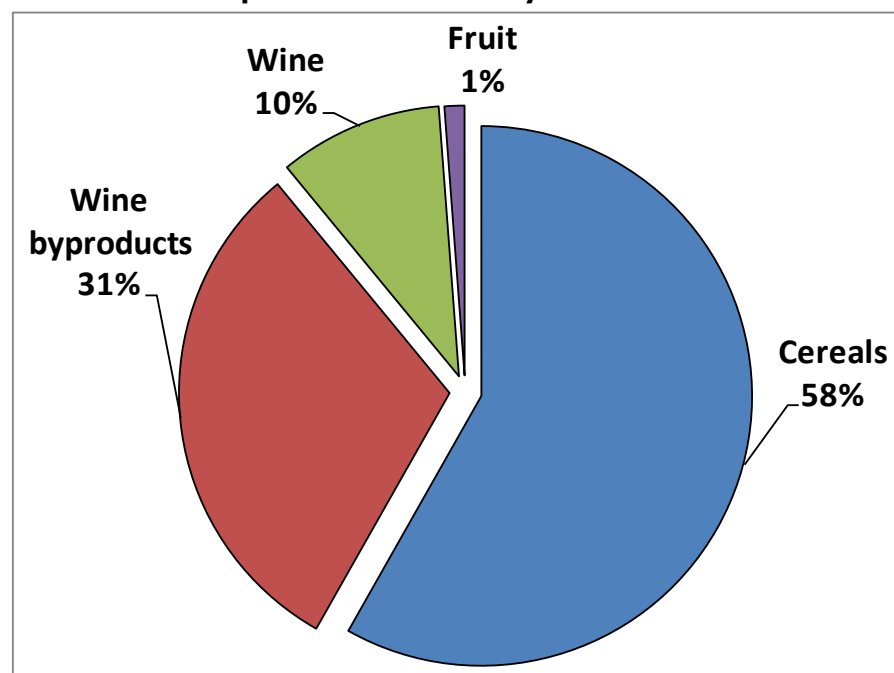
Blending target	3.50%	4.00%	4.50%	5.75%	10.00%	10.00%
Biodiesel	1,419	1,220	1,315	1,435	2,190	2,065
Biodiesel (double counting)				200	500	500
ETBE	217	420	500	500	500	500
Bioethanol	-	-	30	280	690	575
Bioethanol (double counting)	-	-	-	50	100	100
Total biofuels	1,636	1,640	1,845	2,465	3,980	3,740

Source: Unione Petrolifera.

Ethanol

Italian 2010 ethanol production (excluding ethanol used in beverages) reached 92.3 million liters according to the local distilling industry. However, only a limited portion of the total output is fuel ethanol while the remainder is destined to other industrial chemicals. Cereals (corn and wheat), wine and wine byproducts (wine pomace and dregs) are responsible for the majority of the Italian ethanol production.

Italian ethanol production share by feedstock



Source: Assodistil.

The maximum fuel mixture for bioethanol allowed in Italy is set at 10 percent (share in total annual gasoline consumption, E10). However, Italian refineries have not started to mix bioethanol with gasoline yet but they are increasingly consuming ETBE (45 percent ethanol).

Trade

As the EU has no Harmonized System (HS) code for bioethanol, trade numbers are difficult to assess. Bioethanol trade numbers in this report include ethanol trade under HS code 2207 (including not only ethanol for fuel) and HS code 29091910 (ETBE). According to the industry,

Italy exports bioethanol to other EU countries for fuel use. As for ETBE, Italy is a net importer, with around 90 million liters of ETBE bioethanol imported in 2010.

Advanced bioethanol

The Italian company Mossi & Ghisolfi began building the world's first commercial-scale cellulosic ethanol plant (worth \$159 million) in northwestern Italy. The refinery will produce 40,000 to 45,000 MT of ethanol a year from a bamboo-like grass called *Arundo Donax*. When *Arundo Donax* will not be available, the plant will employ wheat stalks and rice husks. A biomass electricity plant on the same site will burn waste material to generate about 10 megawatts of electricity, according to the company. Moreover, Mossi & Ghisolfi and TPG, a U.S. multinational company, have recently signed a \$340 million joint venture agreement to run two bioethanol plants in the north of Italy.

Biodiesel

Italy is Europe's fourth-biggest producer of biodiesel after Germany, France, and Spain, with a capacity of 2.4 MMT (including plants under construction and idled plants). Nevertheless, lack of support from the government, stiff competition from South America, and a complicated and uncertain EU and Italian legislative framework have hindered the development of the Italian biodiesel industry over the last few years. In fact, in 2010 only about 34 percent of the available capacity was utilized and is expected to fall below 25 percent in 2011.

Biodiesel - Conventional & Advanced Fuels (million liters)

Calendar Year	2008	2009	2010	2011	2012
Production, Total	762	903	831	568	682
Advanced Only	0	0	0	0	0
Imports	183	559	922	1,250	1,022
Exports	132	153	160	136	153
Consumption	849	1,347	1,501	1,681	1,573
Ending Stocks	0	0	0	0	0

Production Capacity - Conventional

No. of Biorefineries	18	19	17	16	16
Capacity (Mil. Liters)	2,416	2,416	2,438	2,721	2,721
Capacity Use (%)	32%	37%	34%	21%	25%

Feedstock Use - Conventional (1,000 MT)

Rapeseed oil	230	360	305	200	240
Soybean oil	210	230	200	153	177
Palm oil	210	195	190	110	145
Sunflower oil	20	5	2	2	3
Recycled vegetable oils				30	30
Animal fats			5	5	5
Total	670	790	732	500	600

Production

Biodiesel output in Italy, a major producer in the European Union, is expected to fall some 32 percent to about 500,000 MT in 2011, hit by surging inflows of cheaper imports. According to industry experts, cheap biodiesel imports, which sometimes cost less than the raw materials, over the past couple of years, have hit hard Italian biodiesel producers, who use mostly imported raw

materials including rapeseed, soybean, and palm oil. Import of biodiesel to Italy is expected to cover 70 percent of this year's demand -- which is determined by Italy's mandatory targets for biofuels use in car fuel. Biodiesel accounts for lion's share of biofuels use in Italy. Italy produced 831 million liters of biodiesel in 2010 to meet a demand of about 1,500 million liters.

Biodiesel in Italy is mainly produced from rapeseed (40 percent), soybean (30 percent), and palm oil (25 percent). The remainder is made of recycled vegetable oils, sunflower oil, and animal fats. Rapeseed oil is imported from other EU countries, while soybean oil is either imported from the EU or domestically produced from imported beans (oil from domestic beans, being GM free, is used for food consumption). Italian biodiesel production made from domestically grown oilseeds is negligible. In 2010, less than 20,000 ha were cultivated with oilseeds (rapeseed, soybean, and sunflower) through contracts between farmers and crushing companies.

Consumption

Italian biodiesel consumption is expected to gradually increase over the next decade in order to meet the EU 10 percent mandate. The fuel industry forecast the 2012 biodiesel consumption to be at 1.5 million liters towards the 2020 target of 2.5 million liters.

Trade

Italian 2010 biodiesel imports were at about 920 million liters and are forecast to further increase in 2011. The biodiesel imports surge has partially offset the vegetable oils imports fall. Rapeseed and palm oil total imports decreased respectively by 59 percent and 16 percent over the Jan-Aug 2011 period, accordingly. Italy imports biodiesel mainly from Indonesia, Argentina, Spain, and the Netherlands.

Italian biodiesel* imports by country (million liters)

	2009	2010	Jan-Aug 2010	Jan-Aug 2011
EU-27	411	387	260	155
Spain	105	231	173	69
Netherlands	87	59	6	17
Germany	47	36	28	45
Austria	2	33	26	1
Belgium	13	18	18	23
France	149	9	9	0
Extra EU-27	147	535	353	702
Indonesia	69	265	193	460
Argentina	61	238	133	242
Singapore	5	12	12	0
World	559	922	613	858

*HS code 38249091

Source: GTA.

ASSOCIATIONS

Assocostieri (Association of biofuels producing companies)

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Abbreviations and definitions used in this report

Biodiesel Fatty acid methyl ester produced from agricultural feedstock (vegetable oils, animal fat, recycled cooking oils) used as transport fuel to substitute for petroleum diesel

Bioethanol Ethanol produced from agricultural feedstock used as transport fuel

Exxx Blend of mineral gasoline and bioethanol with the number indicating the percentage of bioethanol in the blend, e.g. E10 equals 10% bioethanol and 90% conventional gasoline.

GHG GreenHouse Gas

Ha Hectares, 1 hectare = 2.471 acres

HS Harmonized System of tariff codes

MMT Million metric tons

MS Member State(s) of the EU

MT Metric ton (1,000 kg)

1 MT Ethanol 1,267 liters

1 MT Biodiesel 1,136 liters