USDA Foreign Agricultural Service
GAIN Report
Global Agricultural Information Network

Voluntary - Public

Date: 1/28/2011
GAIN Report Number: SP1104

Spain

Post: Madrid

Spain's Dehydrated Fodder Sector

Report Categories:
Grain and Feed

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Report Highlights:

Spain’s hay production forecast for MY 2011/12 is estimated at 1.6 million MT. Competition of substitute crops and a lower internal demand, are seen as the main drivers for the anticipated five percent decrease. However, final figures will depend strongly in the evolution of export market demand. In MY2012/13 the subsidy to dehydrated fodder will be integrated into the Single Payment Scheme, which could result in a shift to cultivation from alfalfa to other crops in the long run.

General Information:

Disclaimer: This report presents the situation for forage production and exports in Spain. This report contains the views of the authors and does not reflect the official views of the U.S. Department of Agriculture (USDA). The data are not official USDA data.

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Abbreviations used in this report:

CMO Common Market Organization
EC European Commission
EU European Union
FAS Foreign Agricultural Service
GTA Global Trade Atlas
SPS Single Payment Scheme

HS Codes: Harmonized System codes for commodity classification used to calculate trade data.

Harmonized Codes for Dehydrated Fodder:

1214 Rutabagas (Swedes), mangolds, fodder roots, hay alfalfa (lucerne), clover, sainfoin, forage kale, lupines, vetches and similar forage products, whether or not in the form of pellets.

121410 Alfalfa (Lucerne) meal and pellets; dehydrated, sun-cured and other.

121490 Hay (including alfalfa, whether or not double compressed, and Timothy); clover; and other.

MS EU Member State(s)
MT Metric ton (1,000 kg)
MY Marketing year (May/April)
PS&D Production, Supply and Demand
Ha Hectares
N/A Not Available

Acreage and Production

Spain is the EU Member State with the largest dried fodder production. Fodder cultivation expanded when Spain joined the European Union in 1986, and since then, fodder production, has generally followed an upward trend, with the exception of those market years where grain plantings turned to be more profitable.

As shown in Table 1, alfalfa is the main fodder crop, representing over 80 percent of total fodder acreage. In the main growing areas, alfalfa is part of the rotation alfalfa-corn. Relatively low prices for grain in MY 2009/10, encouraged fodder sowings in MY 2010/11. After area increases in MY 2009/10 and MY 2010/11, better prices in the grain market have resumed farmers' interest in planting grain crops for MY2011/12 instead of fodder crops.

Table 1: Spain, Area Planted to Subsidized Dried Fodder (Hectare)

Market Year	Alfalfa	Vetch	Sainfoin	Fescue Grass	Corn	Rye Grass	Other	Total
2006/07	164,020	4,716	956	5,596	1,190	8,274	7,176	191,928
2007/08	143,554	4,583	506	6,043	1,197	7,744	5,994	169,623
2008/09	122,411	4,039	679	5,696	1,248	5,972	5,993	146,038
2009/10	135,747	9,106	641	9,748	1,076	8,301	4,074	168,693
2010/11e	146,014	4,910	612	5,404	1,092	7,172	6,883	172,088
2011/12f	136,895	4,603	574	5,067	1,024	6,724	6,453	161,340

Source: FEGA (Spanish Agricultural Guarantee Fund) AEFA and FAS Madrid estimates.

According to the 2010 National Crop Area and Yields Survey (ESYRCE), at the national level, almost 70 of the alfalfa acreage is irrigated. In Aragón, the main producing region, the percentage of irrigated alfalfa amounted to nearly 80 percent, while in other relevant producing region, such as Castile y León, the percentage of irrigated alfalfa added up to 60 percent of total area. The overall high rate of irrigated alfalfa results in stable yields per hectare throughout the years. Production variations are highly related to the area planted.

Table 2: Spain, Production of Subsidized Dried Fodder (MT)

Market Year	Dehydrated Fodder	Sun Dried Fodder	Total
2006/07	1,832,791	141,860	1,974,651
2007/08	1,683,736	98,603	1,782,339
2008/09	1,317,700	209,800	1,527,500
2009/10	1,553,309	157,300	1,710,609
2010/11	1,724,735	121,556	1,846,291
2011/12e	1,546,800	132,550	1,679,350

Source: AEFA (National Dried Alfalfa Producers Association) and FAS Madrid estimates.

Processing

There are different techniques in preserving fodder through reducing moisture content, mainly dehydration, sun-drying and milling. The resulting product includes pellets and bales. Bales are the most common product, representing up to 75 percent of total production.

According to the national standardization rule UNE 34602, **pellets** are made of fodder flour and should be presented in a cylindrical shape; with a diameter between 3 and 13 mm and a maximum length of 6 cm. **Bales** are parallelepiped shaped formed by pressure, and tied by rope.
Depending on the type of fiber content they can be classified as:

- Short fiber bales: containing less than 20 percent of long fiber (over 10 cm).
- Long fiber bales: containing less than 20 percent of short fiber (below 10 cm).

According to their size, bales can be classified as:

- Small bales: below 40 kg weight, that can be handled without mechanical assistance.
- Large bales: over 40 kg weight, or that can only be handled with mechanical assistance.

Table 3: Spain Dried Fodder Product by Production Type (MT)

Market Year	Pellets	Bales	Total
2006/07	671,381	1,303,269	1,974,651
2007/08	605,995	1,176,343	1,782,339
2008/09	534,625	534,625	1,527,500
2009/10	427,652	1,282,956	1,710,609
2010/11	519,600	1,212,467	1,732,067
2011/12e	495,000	1,155,000	1,679,350

Source: AEFA (National Dried Alfalfa Producers Association) and FAS Madrid estimates.

There were 100 dried fodder processing plants in Spain in 2005. In 2008, only 76 were operational, and only 72 operated in MY 2010/11. Aragon and Cataluña, both irrigated by the Ebro River, and Castile y León in Spain's central plateau, are the regions with the largest installed processing capacity, representing about 80 percent of Spain's total capacity.

Table 4: Spain Location of Processing Plants

Region	Number of Plants
Aragon	37
Cataluña	12
Castile y Leon	10
Castile-La Mancha	5
Navarra	4
Andalusia	2
Extremadura	1
Balearic Islands	1
Total	72

Source: AEFA (National Dried Alfalfa Producers Association).

Table 5: Spain Number of Processing Plants by MY

Marketing Year	Number of Processors
2006/07	86
2007/08	80
2008/09	77
2009/10	76
2010/11	76
2011/2012f	72

Source: AEFA (National Dried Alfalfa Producers Association).

Consumption

The dairy herd, which is the primary consumer of dehydrated fodder in Spain, has diminished its inventories about 10 percent throughout the last four years. Dried fodder demand in the domestic market remains weak, driven by the downward trend of dairy cow population. As a consequence, the production increase in MY2010/11 is being absorbed by the export market.

Table 6: Dairy cow population, dairy cow milk production and milk average prices

Year	2007	2008	2009	2010e
Dairy cow population	932	888	837	837
Milk production (1,000 MT)	5,779.2	5,879.2	5,776.3	5,786.6
Price (Euros/ 100 kg)	36.41	39.08	30.02	29.72

Source: Eurostat. MARM. Dairy Survey and FAS Madrid estimates.

Trade

Spain is the EU largest hay exporter accounting for the majority of the EU's hay exports. At the world level the EU is the third largest hay exporter after the United States and Australia. While no significant changes are foreseen in US hay exports, Australia's hay exports might decrease due to poor weather conditions and unfavorable exchange rates.

Table 7: World Major Hay Exporters

Country	2006	2007	2008	2009	2010e
United States	2,846,196	2,899,766	3,263,155	3,847,396	3,867,000
Australia	1,342,338	783,674	1,564,726	2,331,432	1,400,700
EU-27	425,354	717,087	595,571	780,141	716,500
Canada	676,928	746,138	529,899	404,807	484,100

Source: GTA and FAS Madrid estimates.

Table 8: Spain Total Imports of Fodder by Origin in MT *

Country of Origin	MY 2006/07	MY 2007/08	MY 2008/09	MY 2009/10	MY 2010/11e
EU-27	11,091	17,088	23,661	7,841	19,101
Others	863	1,130	1,171	943	166
TOTAL IMPORTS	**11,954**	**18,218**	**24,832**	**8,784**	**19,267**

Source: GTA and FAS Madrid estimates. * Includes both bales and pellets.

United Arab Emirates accounted for almost 50 percent of Spain's fodder exports, followed by the EU-27, which represented about 23 percent of total exports, and Saudi Arabia almost 12 percent of the exports. For MY2010/11 demand in UAE is expected to remain strong.

Table 9: Spain Total Exports of Fodder by Destination in MT *

Country of Destination	MY 2006/07	MY 2007/08	MY 2008/09	MY 2009/10	MY 2010/11e
EU-27	213,033	208,672	128,317	115,249	174,704
United Arab Emirates	157,376	202,804	259,461	370,298	223,177
Saudi Arabia	-	20,714	8,153	60,832	20,222
Morocco	32,844	44,508	25,812	11,462	25,842
Others	206,444	283,444	332,597	470,368	291,467
TOTAL EXPORTS	**419,477**	**492,116**	**460,914**	**585,617**	**735,412**

Source: GTA and FAS Madrid estimates.* Includes both bales and pellets.

Policy

In 2006, the existing EU support for the dried fodder sector was redistributed between growers and the processing industry on a 50/50 basis. Direct support to growers was integrated into the Single Payment Scheme (SPS), based on their historical deliveries to the industry and within national support ceilings.

As of 2006, aid to processors was fixed at 33€ per ton within the Maximum Guaranteed Quantity (MGQ) system for both dehydrated and sun-dried fodder.

A single dried fodder MGQ for the EU-15 of 4,855,900 MT merges the previous maximum guaranteed quantities for dehydrated and sun-dried fodder. For the new Member States, there is a separate MGQ of 104,823 MT. The total EU-25 MGQ is 4,960,723 MT.

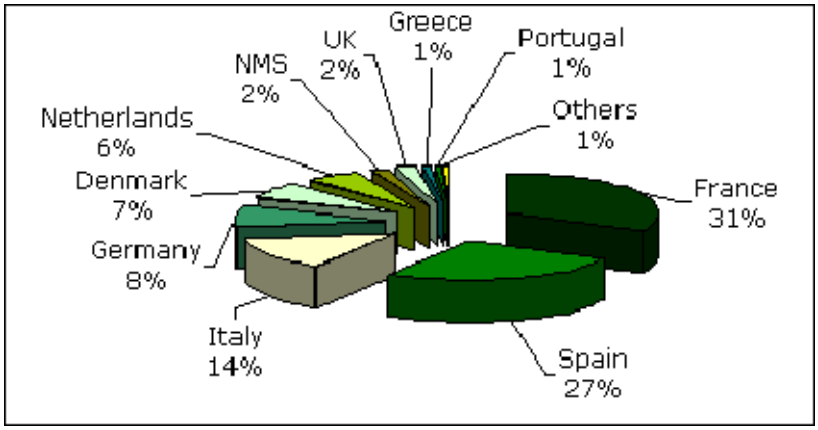
The MGQ is split into Guaranteed National Quantities (GNQ) by Member State. Under this system, penalties are imposed (reductions in aid) if the EU MGQ is exceeded by any Member State for one year. Penalties are applied in those countries which are responsible for the overrun. If EU dried fodder production during a given marketing year does not exceed the MGQ, the full aid is paid.

Table 14: Guaranteed National Quantities for Dehydrated and/or Sun-Dried Fodder

Member State	GNQ (MT)	MGQ (MT)
Belgium-Luxemburg	8,000	4,855,900
Denmark	334,000	
Germany	421,000	
Greece	37,500	
Spain	1,325,000	
France	1,605,000	
Ireland	5,000	
Italy	685,000	
Netherlands	285,000	
Austria	4,400	
Portugal	30,000	
Finland	3,000	
Sweden	11,000	
UK	102,000	
Czech Republic	27,942	104,823
Lithuania	650	
Hungary	49,593	
Poland	13,538	
Slovakia	13,100	
Total	**4,960,723**	**4,960,723**

Source: Regulation (EC) 1786/2003 and Regulation (EC) 1234/2007.

Graph 1. Guaranteed National Quantities for Fodder



Source: Regulation (EC) 1786/2003 and Regulation (EC) 1234/2007.

In Marketing year 2011/12, the fodder payments currently allocated to fodder processing industries will be integrated into the Single Payment Scheme (SPS) and will be paid to farmers based on their historical deliveries. The reference period considered includes years 2007 and 2008. A total of about 44 million Euros will be distributed.

Under the SPS farmers receive a set amount per hectare of agricultural land maintained in good conditions, and not linked to the crop produced. Thus, the decoupling of the subsidy to fodder production could result in changes in fodder production levels.

High prices for substitute crops, such as corn or high quality wheat, the evolution of the internal demand and the exports will determine next season's evolution.

The aid scheme for 2013 on is still to be defined. However, the European structural deficit of vegetal protein, the environmental benefits of alfalfa cultivation could justify a special treatment to the fodder sector.

Requirements for Dried Fodder Aid in Spain

To be granted a production subsidy of 33 € per MT, the processing industry must have contracts with farmers which establish price and acreage. In the event that the dehydrating plant has its own fodder production or acquires fodder from authorized buyers, delivery declarations are required.

Regarding quality standards, fodder to be dehydrated or milled in the plant must have a minimum moisture content of 25%. The product obtained must have a maximum moisture content of 12% in the case of sun-dried fodder or dehydrated fodder that has undergone a milling procedure. The maximum moisture content can be up to 14% for other dehydrated products. In addition, sun-dried fodder must undergo a milling procedure within the processing plant to be eligible for the subsidy. The minimum protein content as compared to dry matter must be 15%.

Production, Supply and Demand

Table 15: Spain Production, Supply and Demand for Dehydrated Fodder

Market Year	MY 2006/07	MY 2007/08	MY 2008/09	MY 2009/10	MY 2010/11e	MY 2011/12f	Units
Production	1,974,651	1,782,339	1,527,500	1,710,609	1,732,067	1,679,350	(MT)
Imports	11,953	18,220	24,832	8,784	19,270	16,000	(MT)
Total supply	**1,986,604**	**1,800,559**	**1,552,332**	**1,719,393**	**1,751,337**	**1,695,350**	(MT)
Dom.Consumption	1,567,126	1,308,443	1,091,418	1,133,776	1,015,927	1,050,000	(MT)
Exports	419,478	492,116	460,914	585,617	735,410	645,350	(MT)
Total Demand	**1,986,604**	**1,800,559**	**1,552,332**	**1,719,393**	**1,751,337**	**1,695,350**	(MT)

Source: FAS Madrid estimates.

As a result of higher production and lower domestic consumption, Spain's self-sufficiency rate for dehydrated fodder has increased over the past five marketing years. According to FAS Madrid estimates, this rate might have exceeded 150% for MY2009/2010. The lower domestic demand has been replaced by increased exports, especially to United Arab Emirates and Saudi Arabia. Future prospects for Spain's dehydrated fodder production will be tied to developments in substitute crops, such as corn or high quality wheat. The domestic livestock situation and third-country demand will determine the viability of dehydrated fodder in Spain, especially starting in 2012 when support provided to the dried fodder processing industry will be decoupled.