USDA United States Department of Agriculture
Foreign Agricultural Service

GAIN Global Agricultural Information Network

Voluntary Report – Voluntary - Public Distribution **Date:** June 25,2020

Report Number: SP2020-0022

Report Name: Spanish Alfalfa Consolidates Its Presence in China

Country: Spain

Post: Madrid

Report Category: Grain and Feed

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Report Highlights:

Post anticipates a larger supply for MY2020/21, as a wet spring boosted fodder yields in non-irrigated land. Spanish fodder continues consolidating its presence in Asian markets. China absorbed 24 percent of Spain's dried fodder exports in MY2019/20, despite facing increased competition from the United States once China lifted duties on U.S. alfalfa in September 2019.

Executive Summary

Spain is the EU-28 largest dry fodder producer. In Spain, the combined planted area for alfalfa and vetches covers an average of over 350,000 Hectares (Ha). More than half of this area planted to fodder crops maintains contracts with the dried fodder industry, the remaining area is either sun-cured or livestock grazed.

The steady pace of fodder exports and shrinking corn prices would normally lead to positive expectations for fodder area in MY2020/21. However, as farmers are getting better margins by combining winter grains with corn as a second crop, fodder area is unlikely to grow. This is particularly the case in the Ebro Valley area. A wet spring boosted fodder yields in non-irrigated land; hence, a larger fodder supply is anticipated for MY2020/21.

In the absence of strong domestic demand, the exports/production ratio has grown steadily over the past five years. However, in MY2019/20, drought conditions reducing the availability of pasture boosted domestic demand, and drove the export/production ratio down to 76 percent from the 80 percent registered in MY2018/19. In MY2020/21, in addition to the good pace of exports to the Middle East and Asia, dry conditions prevailing in other EU countries could lead to a rebound of sales within the EU, as it occurred in MY2018/19.

Traditionally, Spain has been the first fodder supplier to the Middle East while the United States dominated exports to Asian Markets. China's duties on U.S. alfalfa imposed in mid-2018, triggered increased sales of Spanish fodder to the Chinese market. Although, China phased out its duties in September 2019, Spain managed to consolidate is presence in this Asian market, which absorbed 24 percent of Spanish dried fodder exports in MY2019/20.

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References

- Abbreviations:

AEFA	National Dried Alfalfa Producers Association
BP	Basic Payment
ºC	Celsius degrees
CAP	Common Agricultural Policy
EFA	Ecological Focus Area
ESYRCE	Crop surface area and yields survey
EC	European Commission
EFA	Ecologic Focus Area
EU	European Union
FAS	Foreign Agricultural Service
GTA	Global Trade Atlas
Ha	Hectares
MAPA	Ministry of Agriculture, Fisheries and Food
MOU	Memorandum of Understanding
MS	EU Member State(s)
MT	Metric ton (1,000 kg)
MY	Marketing year (May/April)
N/A	Not Available
PS&D	Production, Supply and Demand
SPS	Single Payment Scheme

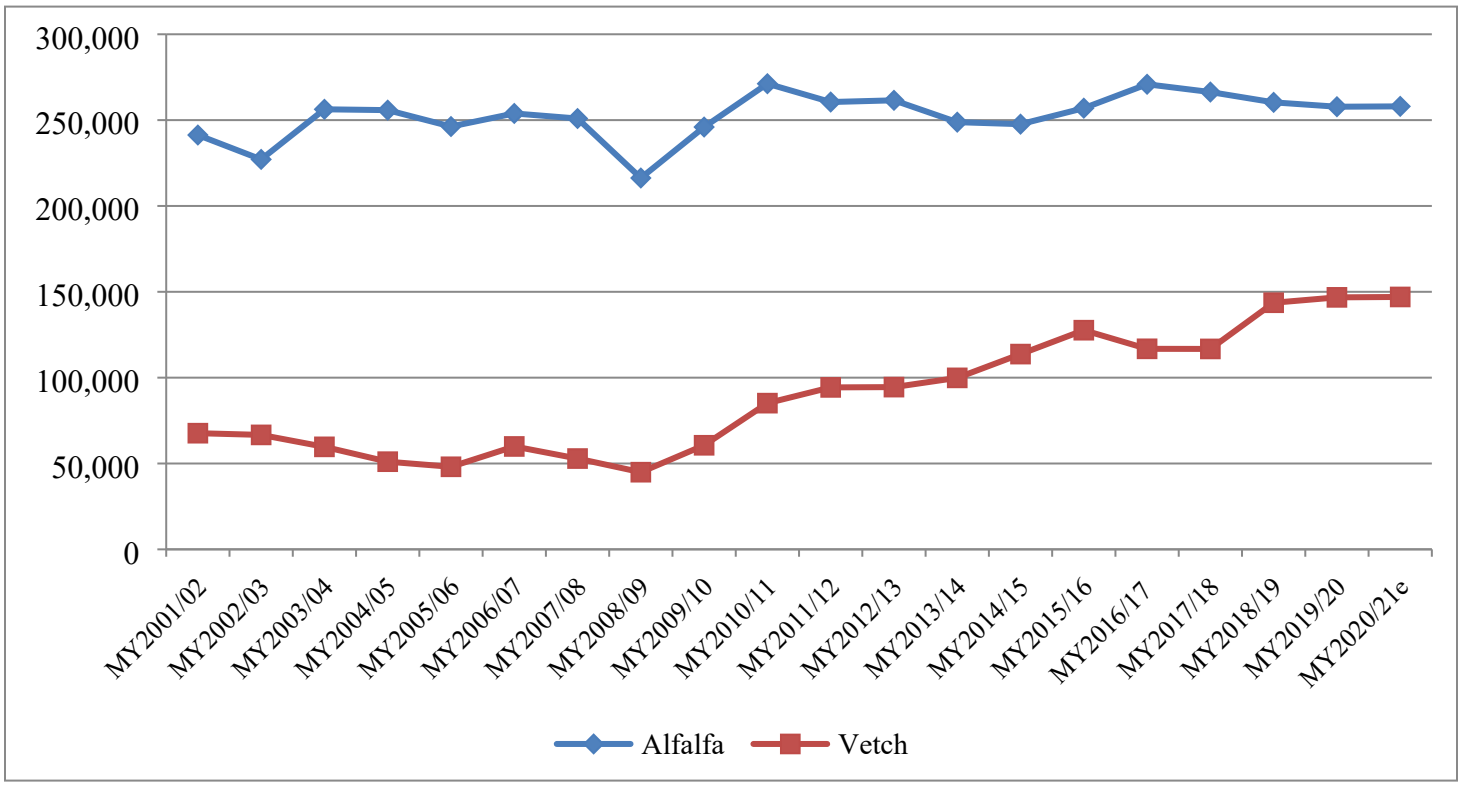
- HS Codes (Harmonized System codes for commodity classification used to calculate trade data) for Dehydrated Fodder:

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.

Area and Production

As alfalfa is a five-year cycle crop, every year 20 percent of the alfalfa is pulled out and replanted as a part of the crop's normal cycle. In Spain, approximately half of the alfalfa is planted during the fall with the remaining half planted in spring. The combined Spanish planted area for alfalfa and vetches covers an average of over 350,000 Ha (**Graph 1**). More than half of this area planted for fodder crops maintains contracts with the dried fodder industry (**Graph 2**), the remaining area is either sun-cured or livestock grazed (see **Processing** Section for additional details).

Graph 1. Spanish Planted Area for Main Fodder Crops (Hectares)[1]

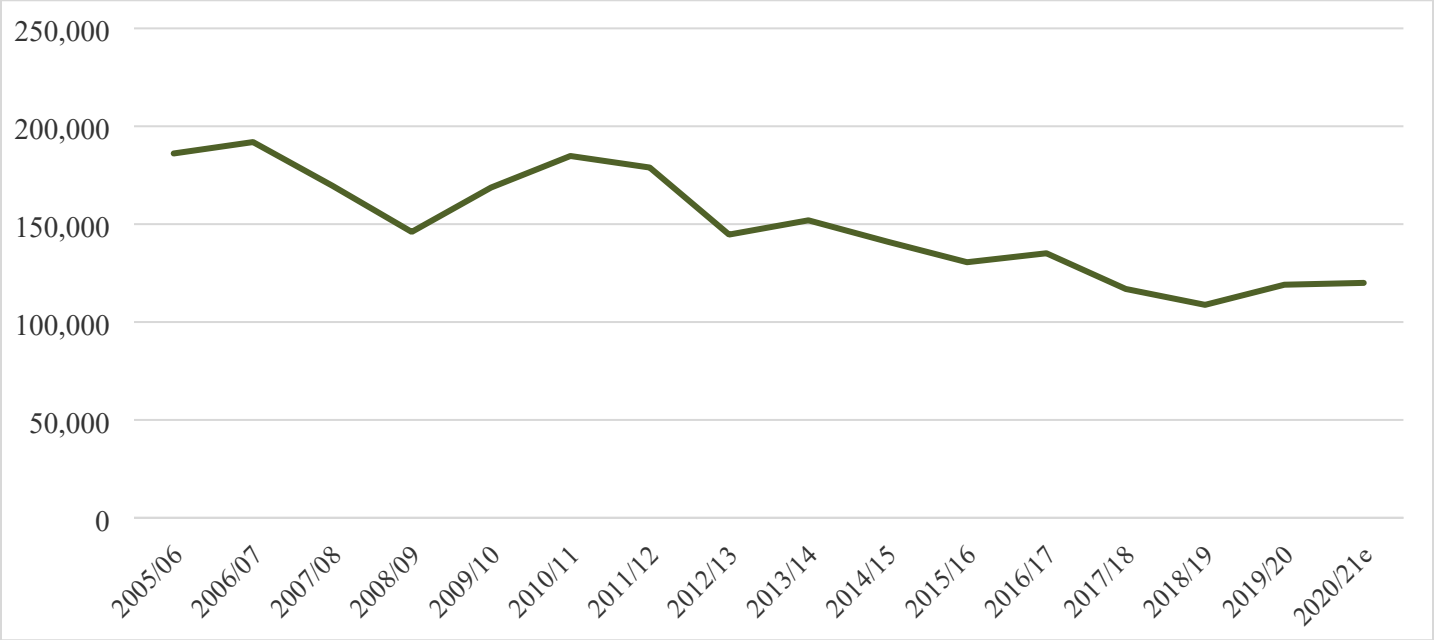


Source: MAPA and FAS Madrid estimates.

After years of continuous decline, in MY2019/20, the alfalfa area under contract grew by 8 percent **(Graph 2)** in response to the steady export demand. In MY2020/21, the area planted to fodder is expected to stabilize. Despite positive expectations given the steady pace of exports and shrinking corn prices, improved farm margins from both winter grains and grain corn as a second crop will prevent fodder area from growing. This is particularly in the Ebro Valley area.

[1] *Data for alfalfa and vetch planted area in **Graph 2** differ from those showed in **Graph 1. Graph 2** includes total area (with uses other than dehydrating process) and **Graph 1** includes only the area under contracts whose production is subject to industrial transformation.*

Graph 2. Planted Area for Dried Fodder under Contract with Processing Plants (Ha) **



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

***Note: Since MY2012/13, official information (FEGA) is no longer available. From MY2013/14, data is based on industry estimates. While crop specific areas are no longer published, according to contacts, alfalfa represents over 80 percent of the dried fodder planted area under contracts with dehydrating plants.*

There are two major alfalfa growing areas in Spain: Castilla y Leon and the Ebro Valley (Aragon and Catalonia). Agricultural practices differ among the above-mentioned alfalfa producing regions.

- In the Ebro Valley area (Aragon and Catalonia), the most commonly cultivated alfalfa variety is "*Aragón*," with about 75 percent of it cultivated land under irrigation. This is an area oriented to export markets, with the Port of Barcelona as its main exit port.

- In Castilla y Leon, where nearly 70 percent of the alfalfa is non-irrigated, production is devoted to feed the domestic dairy herd. The most popular variety of alfalfa cultivated is known as "*Tierra de Campos*," which perform well in heavy clay soils.

In the beginning of MY2020/21, as agricultural operations were considered an essential activity under Spain's COVID-19 confinement measures, alfalfa field operations continued to function normally.

Industry sources report a reduction in yields due to the incidence of alfalfa weevil (*Hypera postica)* in the first cut and second cut, particularly in the Ebro Valley area. Moreover, the first cut of MY2020/21 was delayed as rains and mild spring temperatures slowed crop development. Abundant spring precipitations are projected to improve yields in non-irrigated land. Conversely, this excessive rainfall was detrimental for the quantity and quality of the first and second cut in irrigated land. Post estimates

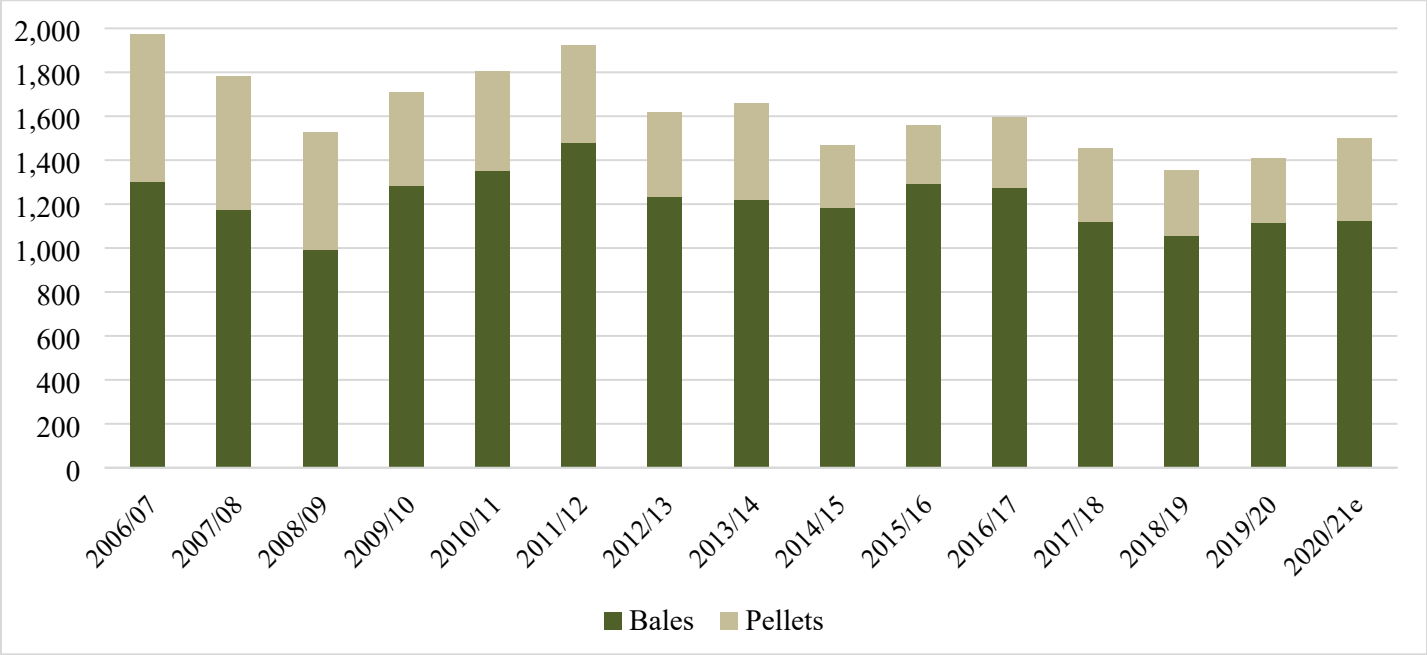
that the better yields obtained in non-irrigated land[2] can offset the reduction in yields reported in irrigated areas. Hence, **MY2020/21** fodder production could register an increase compared to previous season (**Table 2** and **Graph 3**). However, the larger overall fodder output is not expected to result in a large surge in exportable supplies, as the production increase is concentrated in the area whose production is normally devoted to domestic consumption.

Table 2. Dried Fodder Production under Contracts with Dehydrating Plants (MT)[3]

MY	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21e
Production	1,469,716	1,559,498	1,609,907	1,453,076	1,352,505	1,411,422	1,500,000

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

Graph 3. Spain Dried Fodder Product by Production Type (1,000 MT)



Source: FAS Madrid based on AEFA data and FAS Madrid estimates.

[2] *About 70 percent of the total area devoted to fodder is non-irrigated.*[2]

[3] *It includes sun-dried fodder and dehydrated fodder. On average, dehydrated fodder represents over 90 percent, which given its homogeneity, is preferred by some importing countries.*

Processing

Spanish fodder producers use both sun-drying and mechanical dehydration to create dried fodder:

- **Sun-cured fodder:** Sun-cured fodder is normally less homogeneous and is for the domestic market. Sun-cured fodder operations include mowing, which may be combined with conditioning; turning and tedding to allow an even drying, windrowing, collection, and baling.

- **Dehydrated fodder:** Alfalfa destined for dehydration is cut in the field. After a pre-drying phase in the field, the alfalfa is windrowed and transported to the fodder processing plants. The large majority (85 percent) of the alfalfa is collected and transported by fodder wagons, while the remaining 15 percent is chopped and collected by forage harvesters and transported via trucks to the plant. Dehydrated fodder represents about 85 percent of the country's fodder production. It is domestically consumed and largely exported. In the fodder processing plant, the alfalfa is classified by quality and moisture. The alfalfa then goes through the processing plant drier (one step trommel), which dries the fodder out with a 300ºC air flow. Moisture levels of the final product fall between 12-14%.

Details about dehydrated fodder processing plants location as well as whether they are approved to export to China or Iran can be found in **Table 3**.

Table 3. Spain Location of Processing Plants

Region	Number of Plants	Approved to export to China[4]	Approved to export to Iran
Aragon	34	34	34
Catalonia	11	8	8
Castile y Leon	10	6	6
Castile-La Mancha	8	1	2
Navarra	4	3	4
Andalusia	3	3	3
Extremadura	1	0	1
Balearic Islands	1	0	0
Total	**69**	**55**	**58**

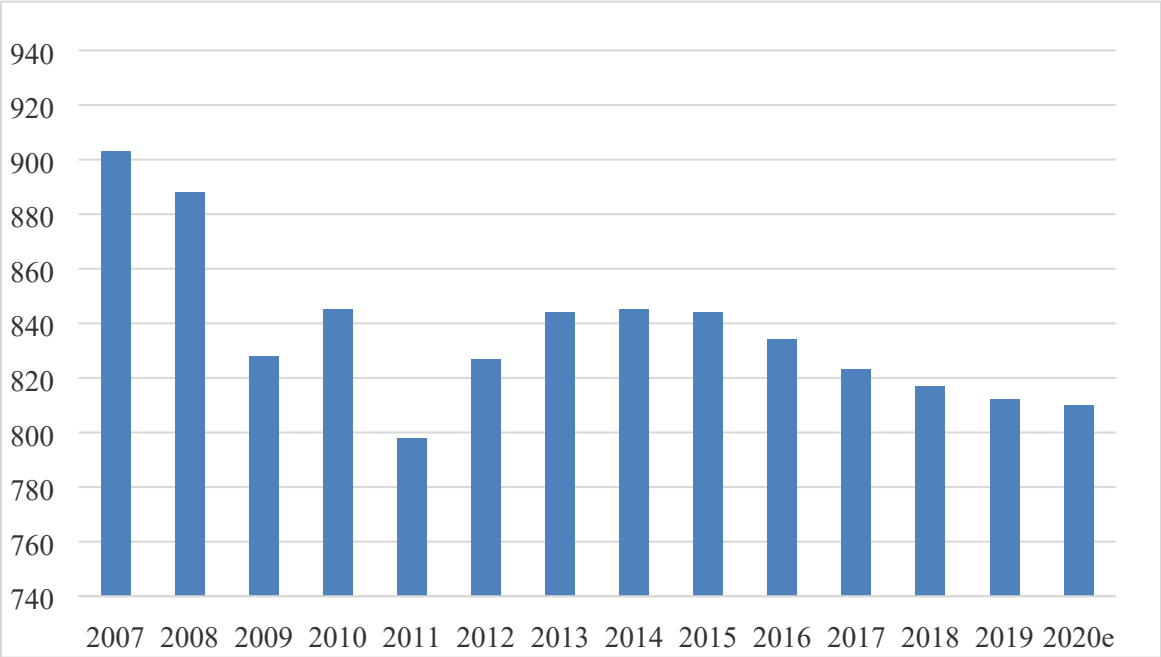
Source: AEFA (National Dried Alfalfa Producers Association) and MAPA.

[4] *Since August 2017 other 20 plants are approved to export to China in addition to the 33 approved between 2014 and 2015.*

Consumption and Marketing

The domestic dairy herd, registering a long-term reduction in inventories (**Graph 4**), is the primary customer of Spain's dried fodder, along with other ruminants like sheep and goats. On one hand, this year's ample availability of domestic pasture has reduced feed and fodder demand compared to the previous year. Additionally, COVID-19 related lockdown restrictions since the second quarter of 2020, had a negative effect in the sales of seasonal, high-end and HRI-dependent livestock products, which included but are not limited to sheep, goats and cattle, further reducing in-country fodder demand. Given the shrinking and relatively smaller in-country consumption of dried fodder, the export demand is driving the market.

Graph 4. Dairy Cow population (1,000 Heads)



Source: FAS Madrid based on Eurostat data and FAS Madrid estimates.

For more information on the EU-28 dairy sector, see the latest information available on Dairy and Products Semi Annual EU-28 GAIN Report.

Trade

Spain is the world's third largest fodder exporter after the United States and Australia. Spain is a net exporter of fodder, with exports (**Graph 5**) largely exceeding imports (**Table 5**), which are limited to a few strategic exchanges with neighboring countries.

Table 5. Spain Total Imports of Fodder by Origin in MT*

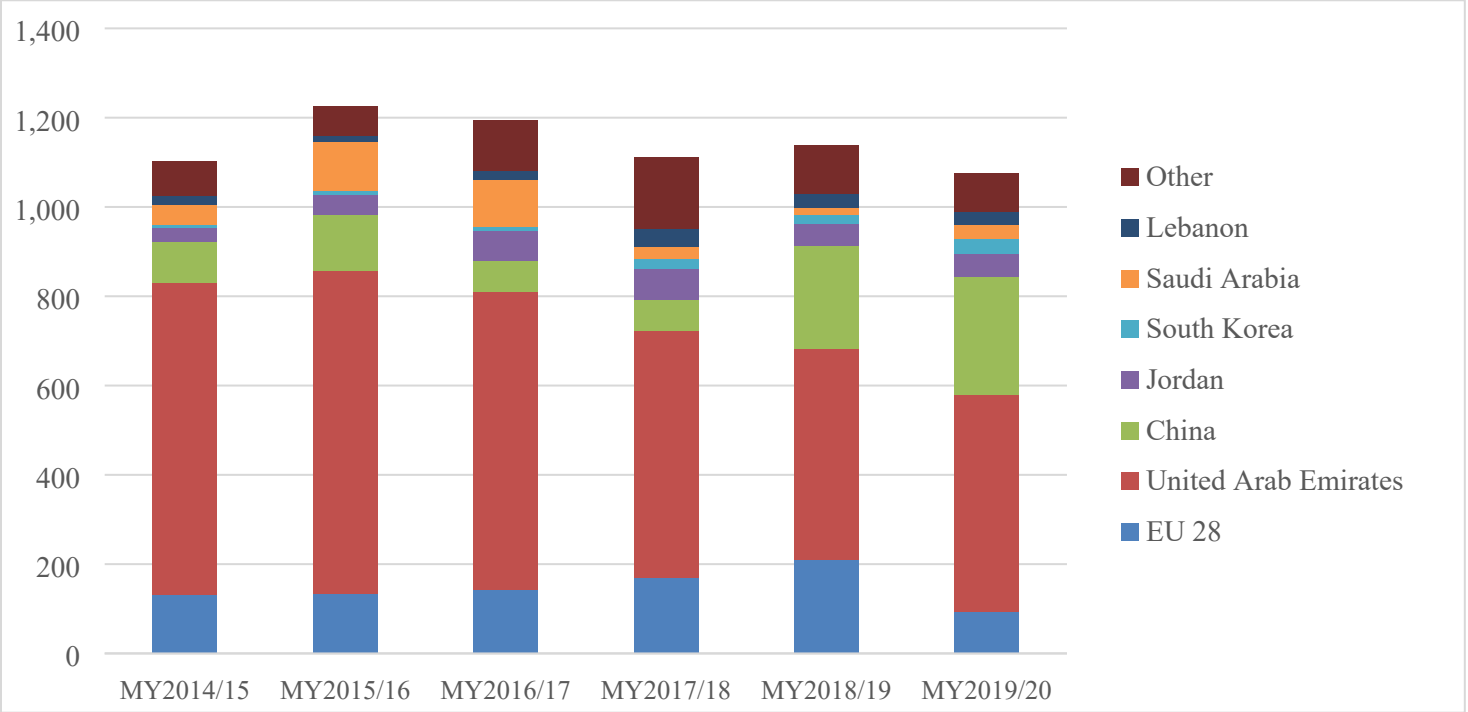
Country of Origin	MY2015/16	MY2016/17	MY2017/18	MY2018/19	MY2019/20
EU-28	18,137	31,726	24,501	17,558	16,465
Others	738	1,839	678	1,310	765
TOTAL IMPORTS	**18,875**	**33,565**	**25,179**	**18,868**	**17,230**

Source: Trade Data Monitor LLC. * Includes both bales and pellets.

In MY2019/20, Spain exported over 75 percent of its dried alfalfa production, slightly below the levels achieved in the previous season, as dry conditions reducing pasture availability boosted domestic demand. In MY2019/20, Spanish fodder was present in nearly 40 different markets outside the EU. However, the bulk of Spanish dried alfalfa exports is concentrated to only a handful of market destinations. The United Arab Emirates, which absorbed over 45 percent of the exports in MY2019/20, is Spain's largest market, followed by China, which accounted for 24 percent, up from last year's 20 percent. Other strategic destinations for Spanish dried fodder include other EU Member States like France, Jordan, Lebanon; Saudi Arabia in the Middle East, and other Asian destinations such as South Korea and Japan (**Graph 5**).

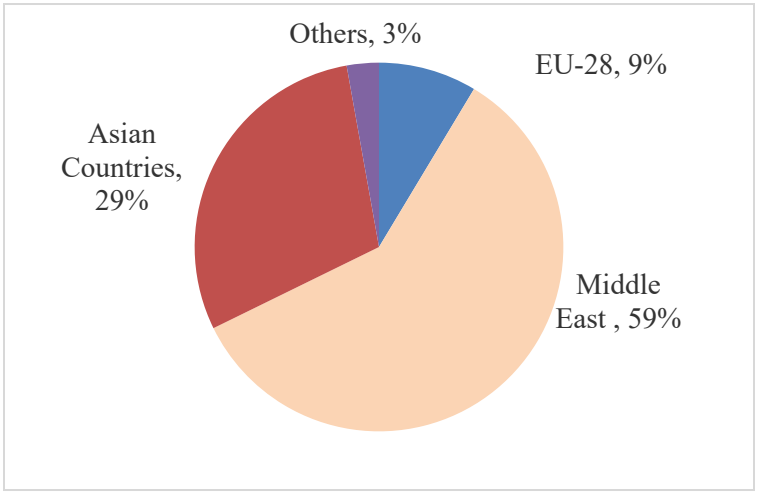
Once more, in MY2019/20, the Middle East continued to be the largest regional market for Spanish fodder accounting for 59 percent of export sales. However, the export growth in Asia is moving the epicenter of Spanish fodder sales to the East. Particularly since China's retaliatory tariffs hit U.S. alfalfa in mid-2018, which triggered a three-fold increase in Spanish fodder exports to China in MY2018/19. While in September 2019, China exempted U.S. alfalfa from the retaliatory tariffs, Spanish fodder sales in the region remained strong throughout the second half of MY2019/20, registering a 14 percent increase for the entire marketing year (**Graph 6**). Long shelf-live, consistency, and reliability of supply has helped Spanish fodder maintain its presence in the Chinese market, regardless of the increased competitiveness from U.S. alfalfa once China lifted its tariffs.

Graph 5. Total Spanish Exports of Fodder by Country of Destination (1,000 MT)*



Source: Trade Data Monitor LLC. * Includes both bales and pellets.

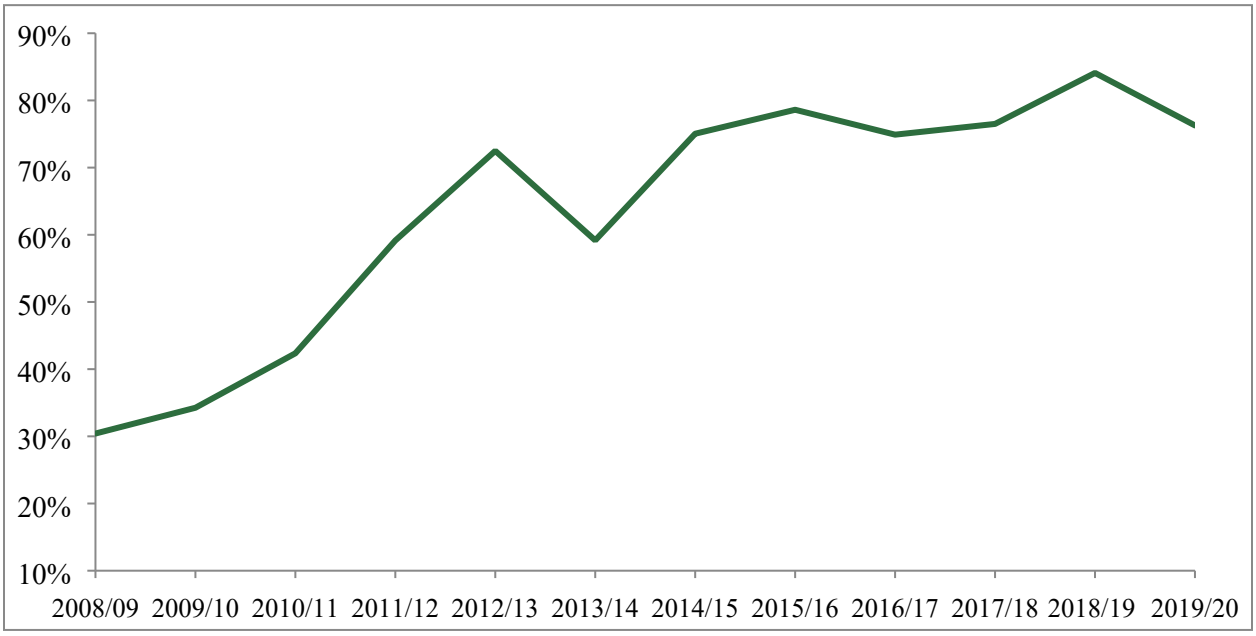
Graph 6. Spain's Dried Fodder Export Distribution in MY2019/20



Source: FAS Madrid based on Trade Data Monitor.

The exports/production ratio has grown steadily over the past five years. MY2019/20 was the exception as the reduced availability of pasture boosted domestic demand and drove the export/production ratio down to 76 percent from the 80 percent registered in NY2018/19. (**Graph 7**).

Graph 7. Spanish Fodder Exports/Production Share Evolution*



Source: FAS Madrid based on AEFA and Trade Data Monitor LLC.
*MY on May April basis

The COVID-19 pandemic has not affected exports in terms of consumption patterns. However, since the beginning of MY2020/21, Spanish fodder exports, as other sectors, are facing pandemic-related logistical challenges in transport. In MY2020/21, dry conditions prevailing in other EU countries could lead to a rebound of sales within the EU, as it occurred in MY2018/19.

Stocks

The combination of the good pace of exports throughout MY2019/20 and the slightly shorter alfalfa crop resulted in low beginning stocks for MY2020/21.

Production, Supply and Demand

Table 6. Spain Production, Supply and Demand for Dehydrated Fodder (MT)

Market Year	MY2016/17	MY 2017/18	MY 2018/19	MY 2019/20	MY2020/21e
Production	1,595,503	1,453,076	1,352,505	1,411,422	1,500,000
Imports	25,179	18,868	17,230	24,798	15,000
Total supply	**1,620,682**	**1,471,944**	**1,369,735**	**1,436,220**	**1,515,000**
Dom. Cons.	425,589	360,307	232,367	359,618	360,000
Exports	1,195,093	1,111,637	1,137,368	1,076,602	1,155,000
Total Demand	1,595,503	1,453,076	1,352,505	1,411,422	**1,515,000**

Source: FAS Madrid estimates.

Policy

Since 2015, the EU replaced the Single Payment Scheme with the so-called Basic Payment (BP), which is not crop specific. Farmers receive an area payment regardless of the crop. The Basic Payment amount takes into consideration the different land uses at the county level. For example, irrigated vs. non-irrigated land or permanent crops vs. pastureland. The basic payment amount is influenced by the previous amount of support farmers received for cultivating the land. As result, a total of fifty homogeneous regions have been defined in Spain. Broadly speaking, the amount of the Basic Payment allocated to each region represents the support granted to the type of land use. The amount of support under the Basic Payment received was calculated based on the subsidies received in 2014.

In the irrigated land of the Ebro basin, where most of the export-oriented alfalfa is grown, industry sources estimate that the Basic Payment would add up to nearly 250 Euros per hectare. In the case of Castilla y León, the other main alfalfa producing region, where alfalfa is grown in non-irrigated land and coexists with non-irrigated grain plots, the amount of support under the Basic Payment may add up to 90 Euros per hectare.

A large part of farm support is linked to compliance with greening measures. An option for greening compliance is to maintain EFAs (Ecological Focus Area). For the purposes of greening compliance, alfalfa is considered a nitrogen-fixing crop. Farms over 15 Hectares need to devote over 5 percent of their cultivation land to this use.

In 2018, the ban on the use of pesticides on fallow land or nitrogen-fixing crops, catch or cover crops grown as an EFA entered into force. Consequently, when used for greening compliance, part of the alfalfa area has to be cultivated without plant protection products. This ban affects farms with total land above 15 hectares, out of which at least 5 percent are EFA. However, the estimated impact of the ban on the overall volume of alfalfa production is expected to be negligible.

In Spain's implementation of the Common Agricultural Policy (CAP) reform, specific payments have been allocated to protein crops (peas, bean, and sweet lupin) or legumes (vetch, soybeans, *lathyrus cicera, lathyrus sativus* and non-irrigated alfalfa). However, support levels are not sufficient to significantly influence planting decisions (see values in **Table 7**). Hence, farmers' planting decisions are ultimately based on crop margins expectations.

Table 7. Legume Specific Payment (Euros/Ha)

Year	Total Area (Ha)*	Percentage in Castile y León	Payment (Euros/Ha)
2015	450,372.01	55	48.06
2016	451,406.24	53	47.71
2017	475,716.67	56	45.30
2018	484,54912	56	44.48
2019	408,288.14	60	52.84

Source: FEGA

**includes all legume crops eligible for the subsidy*

Related Reports

Report Title	Date Released
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Saudi Arabia: Saudi Arabian Alfalfa Hay Market	02/27/2017
Spanish Dried Fodder Exports Continue to Soar	06/29/2016

Attachments:

No Attachments.