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Warm Spring Drives Down Spanish Winter Grains Harvest

Report Categories:
Grain and Feed
Oilseeds and Products

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Report Highlights:

Good yields were expected for most of Spain's grain growing regions until early May when high temperatures and lack of precipitation significantly reduced harvest expectations. Spain's central plateau was most affected by the hot weather as the winter crop cycle had almost ended when the unusually high temperatures withered the grains in the South. Some Northern grain growing regions expect average yields thanks the milder temperatures and rain during the first half of June.

General Information

During Fall, planting conditions for winter grains were optimal. Rainfall levels stayed at average levels and winter rains allowed for a normal crop establishment prior to dormancy in most of the grain producing regions. Flood damage impact was limited to certain areas in the Ebro Valley.

While sub superficial moisture was starting to raise concerns among growers, timely early spring precipitations contributed to replenish soil water reservoirs. A good crop was projected until abnormally high temperatures combined with absence of precipitation throughout May impacted very negatively yield expectations.

The impact of the high temperatures in grain crop yields in Southern growing regions such as Andalucía has been limited, as winter grains were mature (late-stage filling). Differences in yields between earlier and later plantings exist, registering the latter ones the largest decline in output expectations.

As per Spain's central plateau (Castile-La Mancha), the high temperatures hit the crop during the grain filling stage, causing a higher reduction in yields compared to Southern areas. Part of the grain crop has been used for direct grazing or harvested in bales for feed purposes.

In Northern grain growing areas, where the crop was less developed (tillering to heading stage) and the temperatures were a bit cooler, the impact in final yields is expected to be uneven. Some plots show poor tillering and some other show smaller than usual head size. Lighter-textured soil plots will suffer likely higher production reduction whereas in heavier soils, with higher soil moisture retention capacity, the impact of lower temperatures and lack of precipitation is anticipated to be smaller.

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Abbreviations used in this report

EU European Union
FAS Foreign Agricultural Service
Ha Hectares
MY Marketing Year
MT Metric Ton (1,000 kg)
TMT Thousand Metric Tons
MMT Million Metric Tons
MY Marketing Year.
MS EU Member State(s)

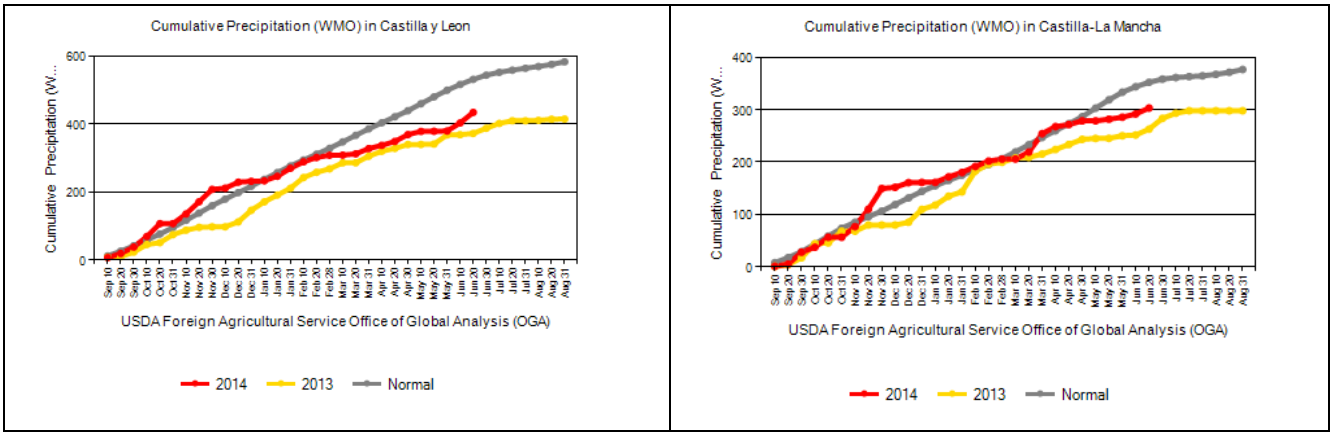
Precipitation

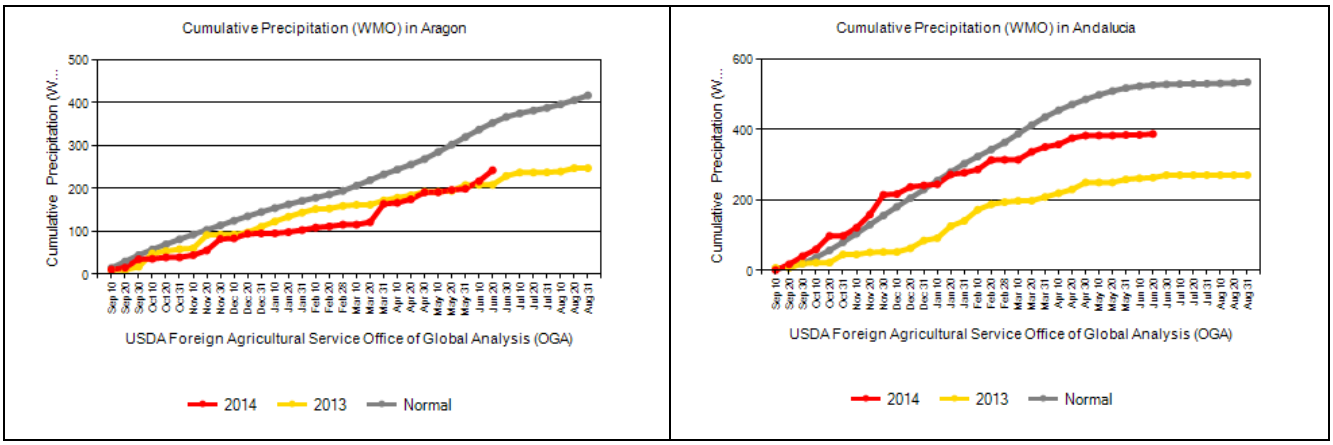
Precipitation levels (**Graph 1**) in Spain since the beginning of the hydrological year were close to average in most of Spain grain growing regions and allowed for a normal crop establishment prior to dormancy in most of the grain producing regions. Flood damage impact was limited to certain areas in the Ebro Valley. When sub superficial moisture was starting to raise concerns among growers, timely early spring precipitations contributed to replenish soil moisture levels.

The absence of precipitation throughout May impacted very negatively yield expectations in most of the country. Lighter-textured soil plots will likely suffer higher production levels reduction whereas in heavier soils with higher soil moisture retention capacity, the impact of lower temperatures and lack of precipitation is anticipated to be smaller.

Nevertheless, precipitation in the first half of June may have contributed to keep yield potential in some Northern grain growing areas as the grain crop is less developed.

Graph 1. Cumulative precipitation in main grain producing regions.





Source: IPAD/Foreign Agricultural Service/USDA

Temperature

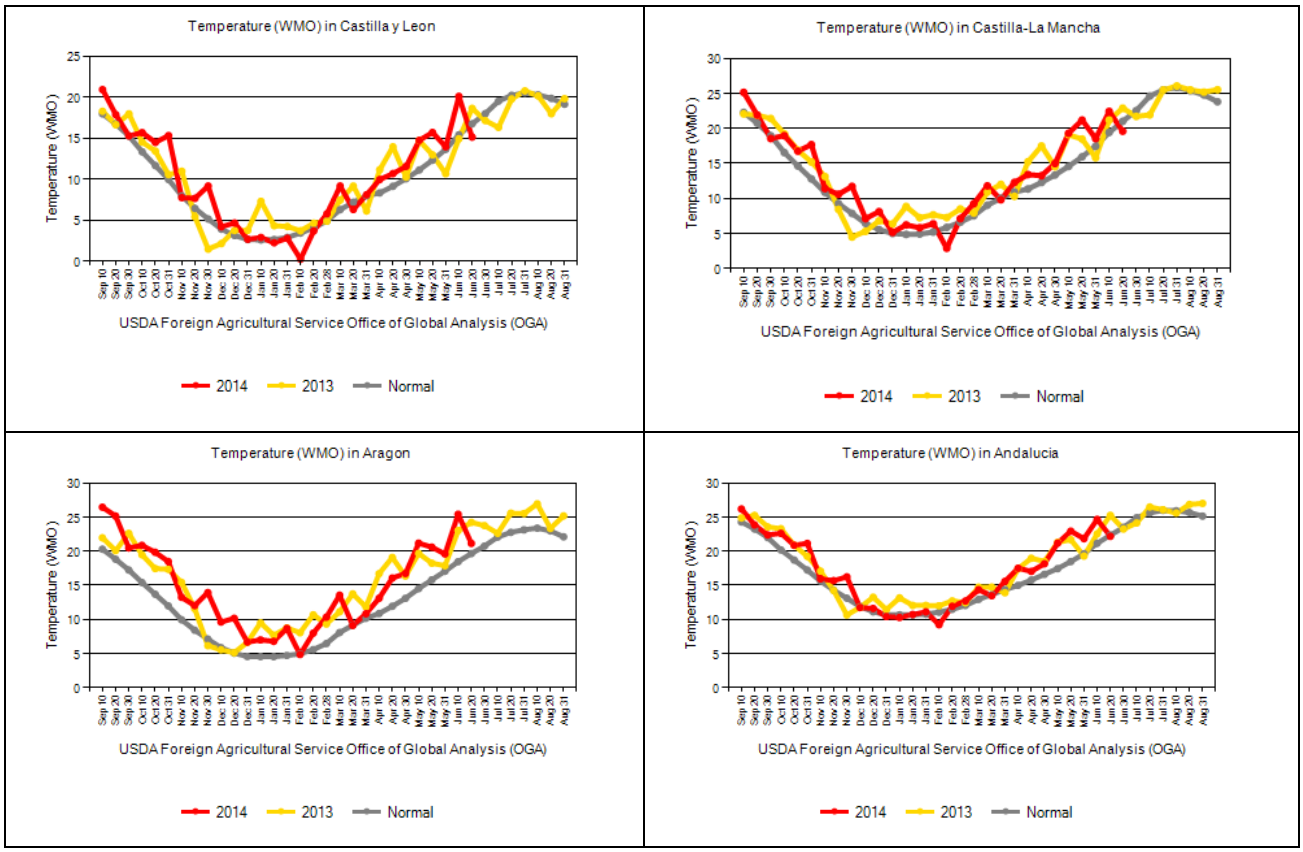
Good yields were expected for most of Spain's grain growing regions until early May (**Graph 2**), when high unusually high temperatures dried out the soil surface, impacted crop development and reduced yield expectations. May 2015 was the second warmest month of May recorded since 1961.

The impact of the high temperatures in grain crop yields in Southern growing regions such as Andalucía has been limited, as winter grains were mature (late-stage filling). Reportedly, differences in yields between earlier and later plantings exist, registering the latter ones the largest decline in output expectations.

As per Spain's central plateau (Castile-La Mancha and South to Duero Basin), the high temperatures hit the crop during the grain filling stage, causing a higher reduction in yields compared to Southern areas. Part of the grain crop has been used for direct grazing or harvested in bales for feed purposes.

In Northern grain growing areas, where the crop was less developed (tillering to heading stage) and the temperatures were a bit cooler, the impact in final yields is expected to be uneven. Some plots present poor tillering and some other show smaller than usual head size. Cooler temperatures in June contributed to limit yield decline in Northern growing areas.

Graph 2. Average temperature in main grain producing regions.



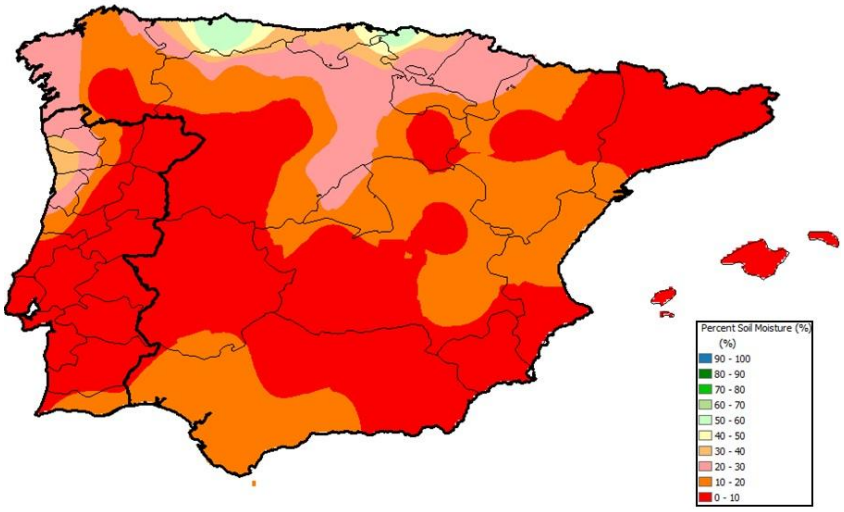
Source: IPAD/Foreign Agricultural Service/USDA

Water Reservoirs Situation: Soil and Dams

Spain has well developed water storage system that allows regulating water use throughout the year. Latest reports indicate that there are 41,337 cubic hectometers of water stored in dams, which represents over 73.8 percent of the total storing capacity, which ensures water availability for irrigation as well as other purposes.

As it pertains to soil moisture, timely spring rains contributed to increase soil subsurface moisture. Nevertheless, in Spain's central plateau soil moisture reached very low levels. According to **Graph 3**, soil moisture was almost depleted as of June 1 in most of Spain territory with the expectation of the northernmost grain growing areas, in which average to high yields could still be achieved. Rains in the first half of June helped to replenish soil moisture, which ultimately could be beneficial for non-irrigated summer crops such as sunflower.

Graph 3. Soil Moisture Percentage on June 1, 2015

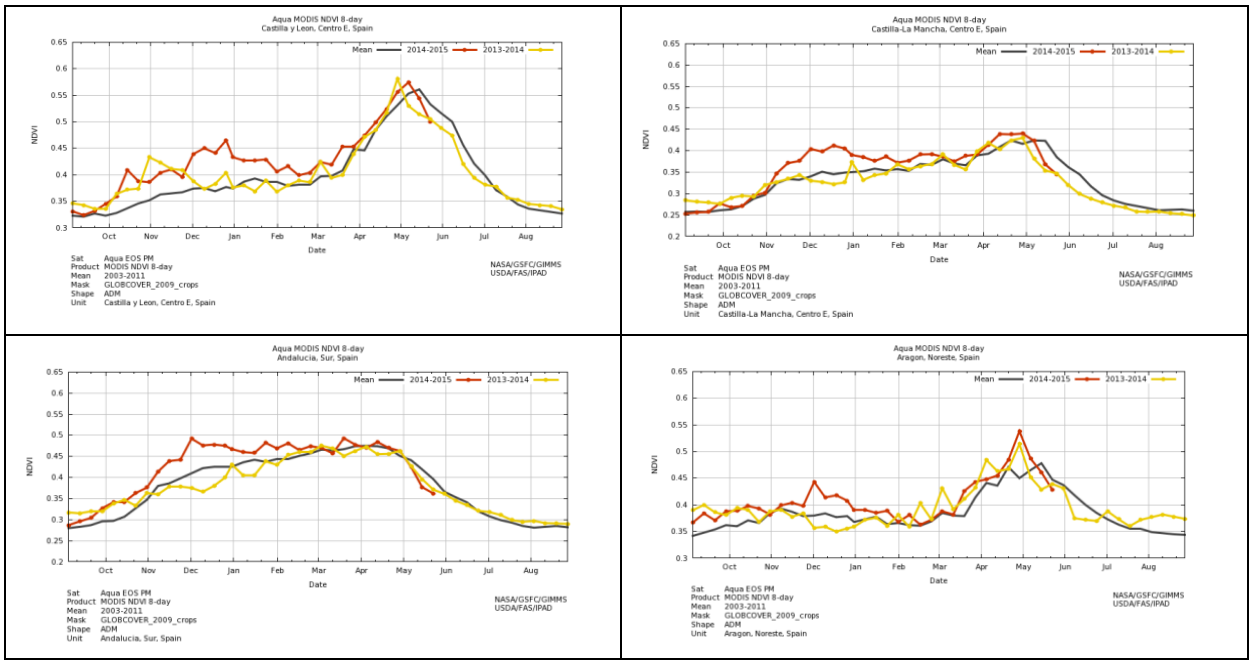


Source: IPAD/Foreign Agricultural Service/USDA based on WMO data.

Vegetation Index

According to **Graph 4** the NDVI (Normalized Difference Vegetation Index) in main Spanish grain growing regions went into winter well above average level of biomass and stayed above average during most of spring. Then the vegetative vigor dropped and the crop dried down rapidly in May. The effect of this sharp dry-down differs among the regions. NVDI in Spain's central plateau seems the most affected, while differences to average values are smaller in the South.

Graph 4. Vegetation index in main grain producing regions



Source: IPAD/Foreign Agricultural Service/USDA based on WMO data.

Area and Production

Official statistics (**Table 1**) confirm for MY2015/16 the fourth consecutive increase in total area planted to winter grains. However, there are some shifts between the different grain crops (**Table 2**). For additional explanations, please see **Policy** Section.

Table 1. Spain's Winter Grain Area (1,000 Ha)

Crop	MY2011/12	MY2012/13	MY2013/14	MY2014/15	MY2015/16
Total Winter Grains	5,434.3	5,565.4	5,651.7	5,710.2	5,718.4

Source: MAGRAMA. Ministry of Agriculture, Food and Environment. Avance de Superficies.

The decline in area planted to **barley** is explained by the lower prices received by farmers and competition of other crops such as **soft wheat**. Total wheat area is projected to grow driven by increased land planted to **durum wheat** as a result of a positive price differential compared to soft wheat.

Area planted to **corn** is projected to decline due to low prices and competition by other crops and to a lesser extent by crop diversification established by greening. High protein **wheat** remains a good alternative to **corn** in irrigated areas. Other crops that compete for **corn** area in irrigated land are rice, sugar beets and tomatoes for processing. As the large majority of the corn is grown in irrigated conditions, final yields are expected to remain stable.

Domestic oilseed production is virtually limited to sunflower seed. Area planted to **soybeans** or rapeseed is very small, despite the steady increase of **rapeseed** plantings in the last years. Official statistics show a decline in area planted to **sunflower**. While it is still too early in the season to forecast sunflower crop yields, precipitation in the first half of June may have contributed to improve soil moisture and to keep sunflowers' yield potential in non-irrigated land in particular.

Table 2. Spain's Grain Area (1,000 Ha)

Crop	MY2013/14	MY2014/15	MY2015/16
Soft Wheat	1,781.6	1,871.7	1,855.0
Durum Wheat	343.4	295.7	311.4
Total Wheat	2,125.0	2,167.4	2,166.4
Barley	2,784.3	2,785.8	2,786.2
Oats	444.5	430.2	431.5
Rye	155.6	133.9	142.2

Triticale	142.3	193.0	198.2
Total Winter Grains	5,651.7	5,710.2	5,724.5
Corn	440.0	433.8	N/A
Sorghum	9.0	6.5	N/A

Source: MAGRAMA. Ministry of Agriculture, Food and Environment. Avance de Superficies.

The impact of the high temperatures in **durum wheat**, which is mainly grown in Andalucía, has been rather limited. Trade sources report good quality and high protein levels. Good quality characteristics in the durum wheat crop would favor exports, mainly to EU destinations.

Barley is the largest grain crop in terms of area in Spain. Overall barley output is expected to be below MY2014/15 levels. In the central and northern half of the country, where most of the barley is grown, **soft wheat** seems to have better yields expectations compared to barley as the wheat crop cycle is delayed compared to barley. The increased use of hybrid feed barley varieties will contribute to improve barley yields in the coming years.

In the absence of official production statistics by the Ministry of Agriculture, Food and Environment, different actors in the grain sector have released their own crop estimates as shown in **Table 3**. While ACCOE (Spanish Domestic Grain Merchants Association) pegs total winter grains production at 14.9 million metric tons, ASAJA (Farmers Union) has a more pessimistic view and estimates a total crop of 13.3 million metric tons. The Cooperatives organization estimates total winter grains crop at 14 million metric tons.

Despite the differences in the overall figures, compared to last year's official figures all sources agree on the fact that yield reduction (compared to average) has been more significant in **barley** than in **wheat** (soft), partly due to the geographical location of barley and partly due to the more sensitive development status of barley when dry and hot conditions occurred.

Table 3. Spain's Winter Grain Production Estimates for MY2015/16 (1,000 MT)

Crop	MAGRAMA 2014/15	Cooperatives	ACCOE	ASAJA
Wheat	6,488	5,779	6,195	5,880
Soft	5,699	4,919	5,275	5,100
Durum	789	860	920	780
Barley	6,933	6,694	7,218	6,100
Oats	670	750	739	1,400
Rye	229	255	275	

Triticale	450	548	473	
Total Winter Grains	**14,770**	**14,026**	**14,900**	**13,280**

Source: MAGRAMA. Ministry of Agriculture, Food and Environment, Cooperatives, ACCOE and ASAJA.

Consumption and Trade

Spanish grain production is not sufficient to meet the country's needs for feed, food use and bioethanol production. Depending on the size of the domestic crop Spain grain import needs range from 9 to 12 MMT. Other factors affecting the country's import needs are pasture availability and feed grain demand. The combination of a lower than anticipated grain crop, reduced pasture availability and stable feed demand, would result in somewhat higher grain import needs compared to the previous season. Ample grain supplies in exporting countries and Spain's main grain commercial partners will likely offset the effect of the shorter domestic crop.

With regards to exports, the reportedly good quality of the **durum wheat** crop, would encourage exports, mainly to intra EU destinations. The **barley** balance is anticipated to be tight due to the lower crop and limited beginning stocks, which combined with the fact that barley trade is limited to a few Mediterranean or intra-European exchanges will result in a lower barley consumption in feed. The zero import duty quota of 950,000 MT of **wheat** originated in Ukraine is been used up since mid-June, so extra EU wheat is imported with the 12 Euros/MT levy in the second half of the calendar year. **Corn** will likely continue to be the preferred grain by feed compounders as it remains very competitive pricewise compared to other grains, and there is no import duty imposed to corn at the moment.

Policy

As of MY2015/16 due to the CAP reform implementation Basic Payment Scheme (BPS) has replaced Single Payment Scheme (SPS). The Basic Payment, is not crop specific, hence, farmers would receive this payment regardless the crop they grow.

The Basic Payment in Spain takes into account four different land uses: irrigated land, non-irrigated land permanent crops and pasture land. Other factors such as the amount of support previously received are also considered. A total of 50 regions have been defined. The amount of the Basic Payment allocated to each defined region represents the support granted to the type of land use and agriculture carried out in the area.

Also, a large part of the support received by farmers (30%) is linked to greening measures. To comply with greening measures, crop diversification has to be observed. Farms between 10 and 30 ha must grow at least two different crops, and farms over 30 ha must grow at least three different crops in their

arable land. This may ultimately introduce slight variations in areas where monoculture is carried out. It is our understanding that this could partially justify the marginal reduction in the corn and barley area in favor of other crops such as high protein wheat, sunflower, protein crops and legumes.

In addition to this, specific payments allocated to protein crops (peas, bean, sweet lupin), legumes (vetch, lathyrus cicera, lathyrus sativus and non-irrigated alfalfa) or oilseeds (sunflower, rapeseed, soybean, camelina and cartamo) exist. Nevertheless, support levels rank between 40 and 60 Euros per hectare, which will not likely determine farmers planting decisions.

Related Reports

Report	Date Released
Oilseeds and Product Annual – Czech Republic	05/04/2015
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Weather Conditions impact Romanian Oilseed Crop	04/30/2015
Grain and Feed Market Update - Bulgaria	04/292015
Grain and Feed Annual – Czech Republic	04/28/2015
Oilseeds and Products Annual - Bulgaria	04/22/2015
Poland – Rapeseed and Products Annual	4/16/2015
Grain and Feed Annual - Warsaw	4/13/2015
Grain and Feed Annual EU-28	4/10/2015
Oilseeds and Products Annual EU-28	4/3/2015
French plan for protein crops 2014-2020	01/07/2015