USDA United States Department of Agriculture
Foreign Agricultural Service

GAIN Global Agricultural Information Network

Voluntary Report – Voluntary - Public Distribution **Date:** November 21, 2023

Report Number: BU2023-0018

Report Name: Grain and Feed Market Update

Country: Bulgaria

Post: Sofia

Report Category: Grain and Feed

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Report Highlights:

FAS/Sofia's marketing year (MY) 2023/24 corn production estimate is lowered to 2.5 million metric tons (MMT) based on the harvest progress to date. The corn crop suffered from severe and prolonged summer drought and high heat which reduced yields considerably. Conversely, barley production is increased due to favorable climate conditions and higher area planted. Wheat exports in MY 2023/24 have been dynamic and already reached 3.0 MMT as of early November, triggered by extra large beginning stocks, good export demand, and prices allowing positive margins for farmers. MY 2024/25 fall planting of winter grains has been challenging due to an unusually dry and warm fall. Wheat planting is 26 percent behind as of mid-November, but it is believed that farmers will make efforts to plant the traditional 1.0 million hectares (HA).

Weather Overview
The first half of the fall, September – October, was one of the warmest and driest on record in Bulgaria. Drier-than-usual conditions (rainfall 50 percent or more below the long-term average) were observed in most of Bulgaria and ranked among the three driest on record since 1991. The rainfall deficit reached 60-95 percent in central and eastern areas. Precipitation throughout the country was concentrated in the first half of September, which was followed by a long dry spell. Daily temperatures exceeded the long-term average by 2-3.5°C, resulting in near-record temperatures for the review period as a whole (JRC MARS Bulletin October Vol 31 №10).

These conditions affected the final stage of development of the summer crops and the corn yield forecast was revised further downwards. On the other hand, dry weather allowed for good progress in harvesting of summer crops (corn). High temperatures, combined with a pronounced rainfall deficit and negative climatic water balance, caused topsoil to become dry and hard, which negatively affected the winter grains planting campaign, as well as emergence and development of plants that had already been sown. This led to a significant and unprecedented delay in the fall planting of winter wheat, and less was able to be planted in the optimum time window. It is believed that the sowing campaign can still be accomplished on time in November due to adequate rains which arrived in the first week of the month. Substantial rain, however, is needed in the drought-affected regions to establish the crops before wintering.

The summer season (July-August) was also unusually hot and dry with prolonged dry spells with extreme temperatures. This had a severe negative impact on corn development despite the promising start in May/June. (See Maps 1-9 Crop Explorer and Bulgaria data). The amount of rainfall was higher in the northwest part of the country (Map 7), and a similar pattern was observed in the fall (Map 9). There were locations with some timely showers which led to a mixed picture of summer crops' yields, with an overall better situation in the northwestern and northcentral regions. However, satellite maps show a generally much drier and warmer season (March – November, Map 4) especially in the central/eastern parts of the country which make up most of Bulgaria's grain regions. Along with parts of Romania and Spain, these were among the driest regions in Europe this year.

MY 2024/25 Outlook
Due to the dry and warm fall weather, field work for winter grains planting were challenging. As a result, the Ministry of Agriculture (MinAg) reported a 26 percent decline in area planted under wheat as of early November compared to the corresponding period last year (Table 2). Planting of other winters grains such as rye and triticale, was also behind by 63 and 41 percent, respectively. Barley planting, however, was stable. Rain arrived in early November and although it was a relief for the farmers, it did not dramatically change the situation. As of November 12 (Map 5), surface soil moisture improved but the subsurface moisture remained in deep deficit in central and eastern regions. More rain is in the forecast for the rest of November, and it is expected that this will support the early development of the winter grains.

Plantings are expected to continue until the end of the month, but it remains to be seen if farmers will be able to reach the traditional area planted of 1.0 million hectares (MHA) for wheat. After two dry and hot years and very low yields of summer crops, it is expected that most farmers will do their best to maximize the area under winter crops and reduce the summer crops due to climate risks. In addition, wheat prices are reportedly still providing positive margins for producers, along with active export

demand. For these reasons, initial expectations are for MY 2024/25 wheat area at 1.0 MHA and production at a conservative level of 6.3 MMT. Barley is expected to maintain higher area planted of about 130,000 HA, compared to MY 2022/23, and production of 650,000 MT is expected.

MY 2023/24

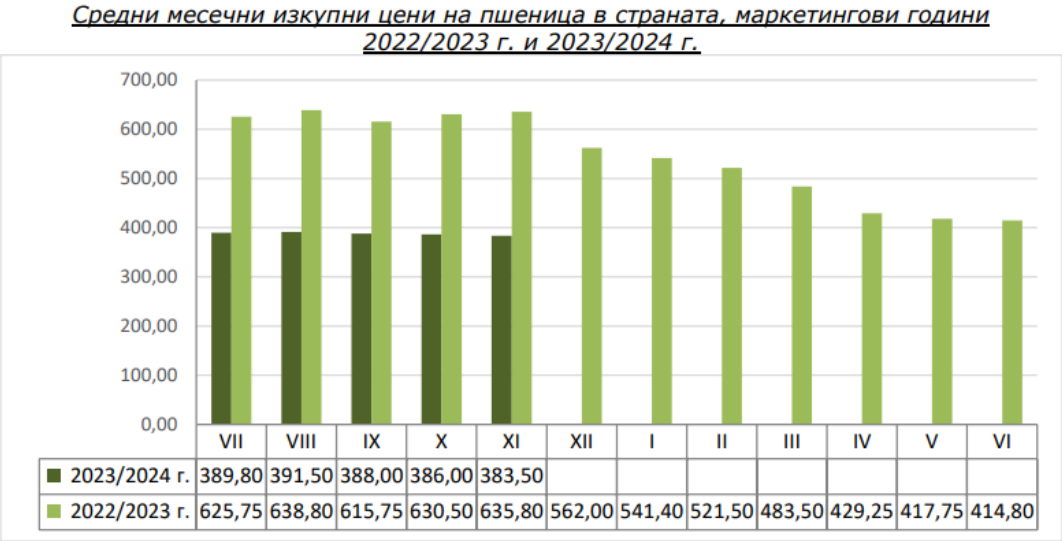
Wheat: Final production data is shown in Table 1, based on Eurostat. The data confirms the earlier FAS/Sofia estimate for wheat production at 6.8 MMT. Spring rains were favorable for the crop although reportedly, the hectoliter mass declined. Wheat production was 5.7 percent more than in MY 2022/23, with wheat yields at 5.6 MT/HA, about 5 percent above those in the previous season.

The MinAg official report about the quality of this year wheat harvest shows that 48.7 percent of the crop is of milling quality compared to 66.3 percent in 2022, with the decline due to unfavorable weather conditions (too much rain, cooler temperatures and not sufficient sunshine in May-June). This is also the lowest share of milling wheat for the last five years. Feed quality wheat in 2023 is at 51.3 percent compared to 33.7 percent in 2022. Average quality characteristics of MY 2023/24 wheat are: moisture content – 11.1 ± 0.5 percent; hectoliter mass – 75.2 dm^3 ± 2,3 kg/100 dm^3; wet gluten – 21.3 percent ± 2.6 percent; protein content – 11.7 percent dry matter. ± 1.1 percent dry matter; falling number – 372.8 sec. ± 38.5 sec.

With relatively good yields and record large wheat ending stocks from the previous season (Table 5), farmers were more eager to sell. This was combined with active export demand from the beginning of the harvest campaign. Wheat prices, although much lower than in the previous marketing year (Graph 1), were reported to still provide a positive margin to producers. As a result, wheat exports have accelerated. As of November 10, wheat exports reached 3.0 MMT of which 2.2 MMT was exported to non-EU countries (Table 4, MinAg Weekly Monitoring of Commodity Markets bulletin). This is 260 percent more than wheat exports a year ago (1.16 MMT, bulletin). Exports to non-EU countries are also 220 percent more than as of November 10, 2022 (Graph 3). The primary non-EU destinations have been South Korea, Indonesia, Thailand, Morocco, and Algeria.

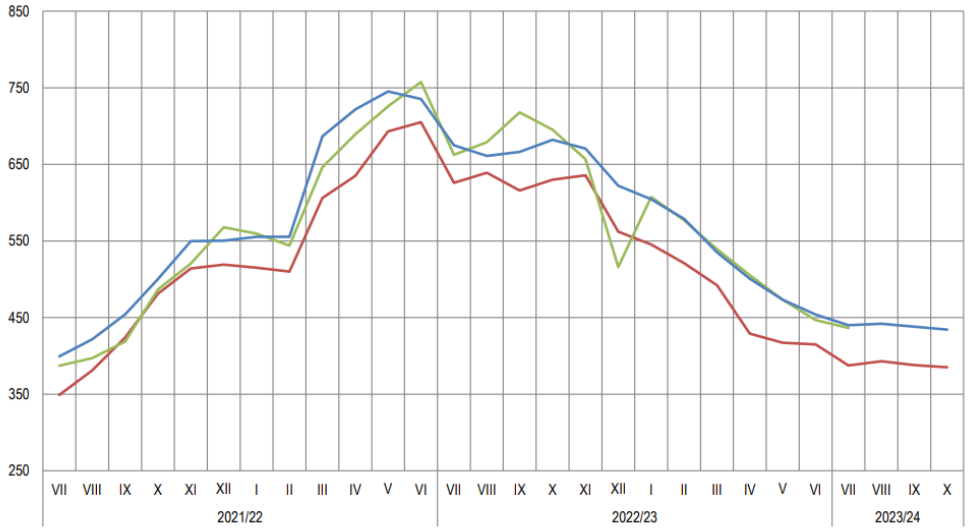
Wheat prices have stabilized since July (Graph 1). As of November, wheat prices are about 60 percent of the prices a year ago and 92 percent of the level reached in June for the previous season crop. The gap between the local ex-farm prices and the EU prices has widened since November 2022 but has stabilized for the new crop MY 2023/24 (Graph 2).

Graph 1. Wheat Monthly Market Prices, MY 2023/24 vs MY 2022/23 in Bulgarian Leva (BGN)/MT



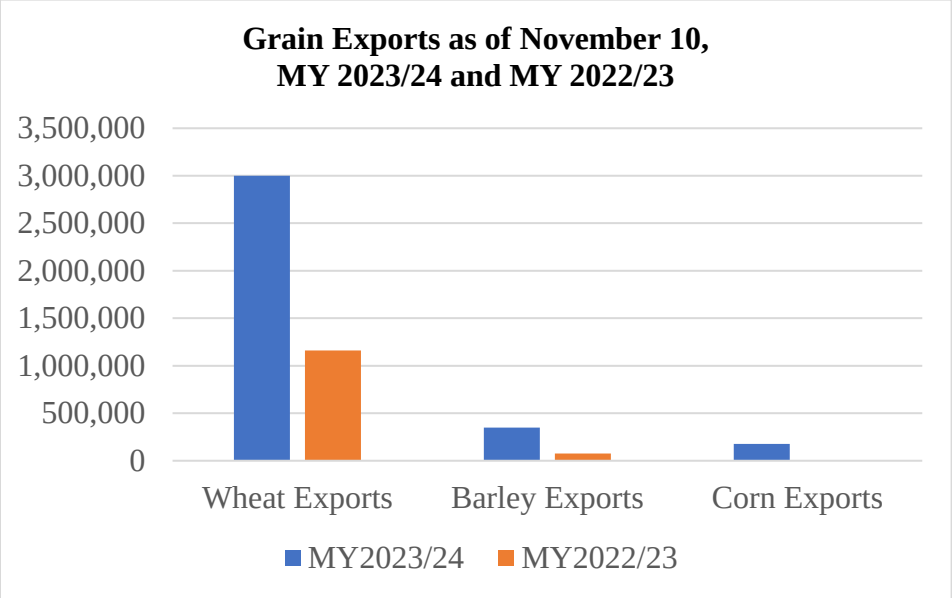
*The chart shows prices for the MY, which begins in July, with MY2023/24 in dark green and MY 2022/23 in light green.
Source: Bulgarian Ministry of Agriculture Monitoring of Commodity Markets Weekly Bulletins

Graph 2. Wheat Monthly Prices, MY 2021/22 – MY 2023/24 (October), BGN/MT



Red line- Bulgarian ex-farm prices, milling wheat, in Bulgarian leva (BGN) per MT
Blue line – EU market price, milling wheat, BGN/MT
Green line – Bulgarian FOB export price, milling and feed wheat, BGN/MT
Source: Bulgarian MinAg Dashboard Grains and Oilseeds, November, 2023

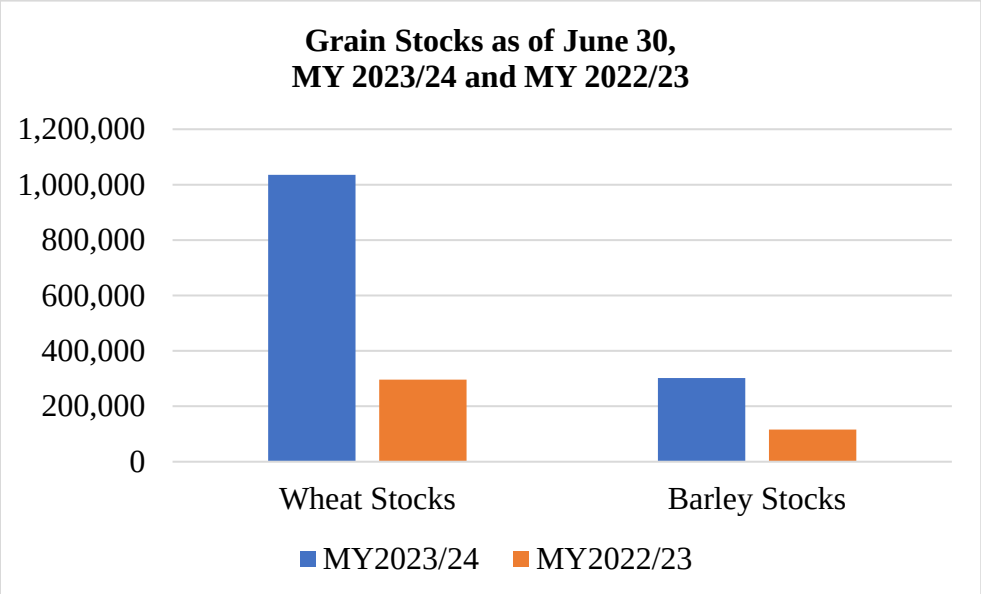
Graph 3. Grain Exports, MY 2023/24 and MY 2022/23 (as of November 10)



Source: Bulgarian Ministry of Agriculture Monitoring of Commodity Markets Weekly Bulletins

The year started with record large beginning stocks that were 349 percent more than a year ago (Table 5, Graph 4). The logistical issues caused by the large stocks are motivating elevated exports. Despite these accelerated exports, however, the country still carries substantial stocks of wheat, estimated at 3.9 MMT as of November 10. This extra surplus may result in record exports in MY 2023/24, currently estimated by FAS/Sofia at 6.0 MMT, compared to 5.9 MMT exported in MY 2022/23 (Table 5).

Graph 4. Grain Beginning Stocks, MY 2023/24 and MY 2022/23



Source: Bulgarian Ministry of Agriculture Monitoring of Commodity Markets Weekly Bulletins

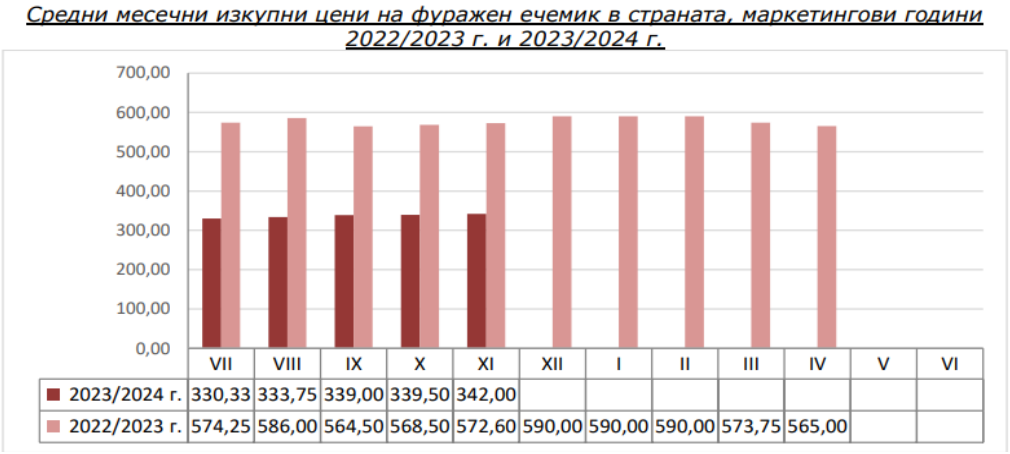
Barley:
Final barley production data is shown in Table 1, based on Eurostat. The data exceeds the earlier FAS/Sofia estimate for barley production due to higher-than-expected yields as well as 13 percent larger area, compared to the previous marketing year. FAS/Sofia adjusts its estimates based on final harvest data (Table 3) at 750,000 MT, 20 percent above production in MY 2022/23.

The MinAg official report about the quality of this year barley harvest shows that 78.5 percent of the crop is of malting quality compared to 80.8 percent in 2022, with this due to unfavorable weather conditions (too much rain, cooler temperatures and not sufficient sunshine in May-June). Feed quality barley in 2023 is at 21.5 percent compared to below 20 percent in 2022. Average quality characteristics of MY 2023/24 barley are: moisture content – 11.5 ± 0.6 percent; hectoliter mass – 61.1 dm^3 ± 2.0 kg/100 dm^3; protein content – 11.5 percent ± 0.7 percent; foreign matters – 1.1 percent ± 1.2 percent.

Similar to wheat, export demand for barley has been very good and driven by the bigger crop and record large beginning stocks (Table 5, Graph 3). As of November 10 (Table 4), barley exports reached 348,000 MT or 454 percent larger than a year ago (76,651 MT). The major non-EU destination has been Morocco.

Barley monthly prices have declined since December 2022 but have been stable for the new MY 2023/24 crop (Graph 5). As of November, barley prices were at 60 percent of the level a year ago.

Graph 5. Barley Monthly Market Prices, MY 2023/24 vs MY 2022/23 in BGN/MT



*The chart shows prices for the MY, which begins in July, with MY 2023/24 in dark red and MY 2022/23 in light red.
Source: Bulgarian Ministry of Agriculture Monitoring of Commodity Markets Weekly Bulletins

The year started with extra large beginning stocks that were 260 percent more than a year ago (Table 5, Graph 4). Despite the accelerated exports to date, the country still carries large stocks of barley, estimated at 420,000 MT as of November 10. This extra surplus may result in record exports in MY 2023/24, currently estimated by FAS/Sofia at 500,000 MT, compared to 440,000 MT exported in MY 2022/23 (Table 5).

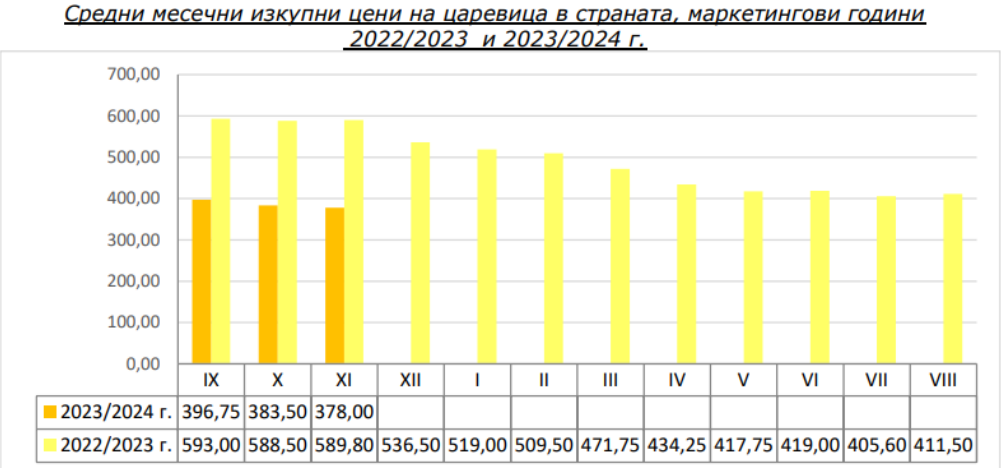
Corn: The hot and dry summer weather had a severe negative impact on the corn crop. The yield picture is very mixed with generally better yields in the west and lower yields in central and eastern parts of the country, with strong dependence on the rainfall volumes. Due to localized summer showers spread unevenly throughout the country, neighboring fields often have considerable yield differences. The harvest is still ongoing, but as of November 8, the MinAg reported 96 percent of corn area harvested, with production at 2.2 MMT, and an average yield of 4.2 MT/HA. Both production and yields are reported 11 percent lower than a year ago. Private estimates for corn production vary at around 2.45-2.6 MMT, while yield estimates are about 4.7 MT/HA to 5.0 MT/HA. The current FAS/Sofia estimate for corn production is at 2.5 MMT with an average yield of 4.7 MT/HA but it is subject to further adjustment based on the final harvest data.

Due to two consecutive years of droughts and smaller corn crops, farmers might be discouraged to plant corn in the spring of 2024 and area may decline. Reportedly, this year corn had the highest production costs compared to other grains and oilseeds, and had the most negative margins due to decline in both yields and prices. The heavy supply of corn in the Black Sea this year has created an additional pressure on farmers.

Corn prices have been declining since last fall. As of November, the corn price was at 64 percent of the price in November 2022. The gap between Bulgarian ex-farm corn price and the EU price has narrowed with the new crop since August (Graph 7).

Currently, farmers prefer to keep their stocks and domestic sales dominate the market compared to exports. Still, as of November 10, corn exports were reported at 177,000 MT, mainly to non-EU countries, compared to zero a year ago. Due to the normal level of beginning stocks (180,000 MT at the end of August) and a smaller crop in MY 2023/24, exports this year are forecast to decline. Currently, FAS/Sofia's early estimate for MY exports are at about 1.0 MMT, compared to 1.4 MMT exported in MY 2022/23.

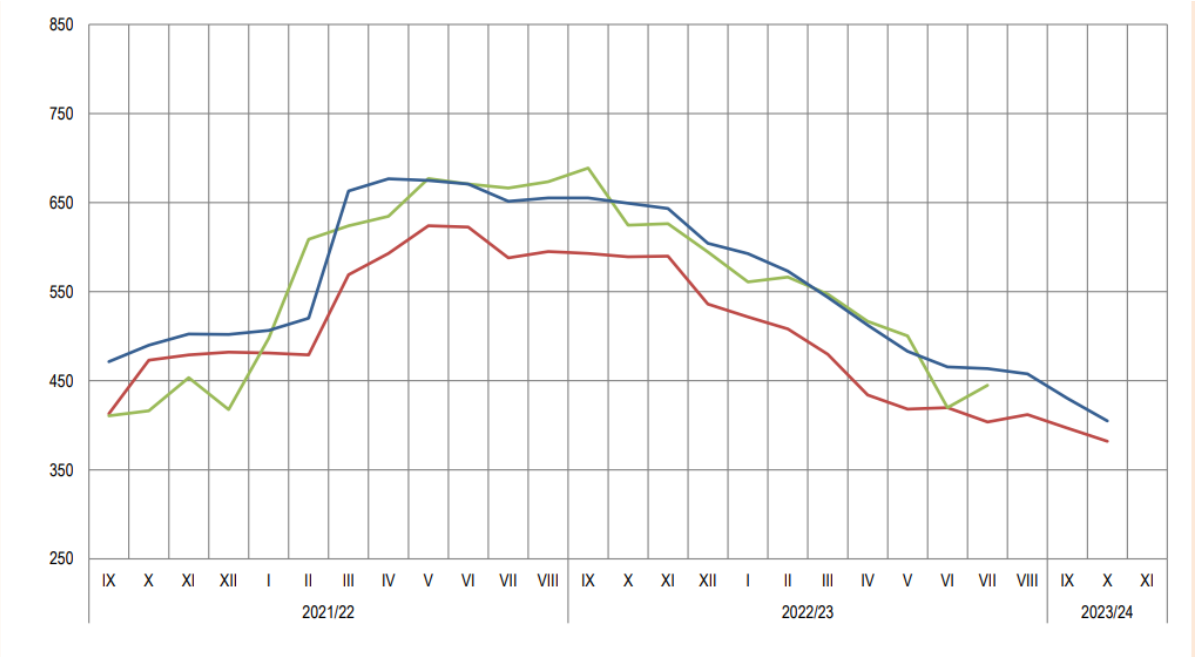
Graph 6. Corn Monthly Market Prices, MY 2023/24 vs MY 2022/23 in BGN/MT



	IX	X	XI	XII	I	II	III	IV	V	VI	VII	VIII
2023/2024 г.	396,75	383,50	378,00									
2022/2023 г.	593,00	588,50	589,80	536,50	519,00	509,50	471,75	434,25	417,75	419,00	405,60	411,50

*The chart shows prices for the MY, which begins in July, with MY 2023/24 in dark yellow and MY 2022/23 in light yellow.
Source: Bulgarian Ministry of Agriculture Monitoring of Commodity Markets Weekly Bulletins

Graph 7. Corn Monthly Prices, MY 2021/22 – MY 2023/24 (October), BGN/MT



Red line- Bulgarian ex-farm prices, in Bulgarian leva (BGN) per MT
Blue line – EU market price, BGN/MT
Green line – Bulgarian FOB export price, BGN/MT
Source: Bulgarian MinAg Dashboard Grains and Oilseeds, November, 2023

MY 2022/23

For the major grains, final trade data (Table 5, Trade Data Monitor) confirmed unusually low grain exports due to complex reasons such as increasing production costs, inflation, declining commodity prices, uncertainty in the Black Sea market, unstable export demand, and lower competitiveness of local grains compared to other origins in the Black Sea. As a result, MY 2022/23 wheat exports were 30 percent behind the previous season, barley exports declined by 42 percent, and corn exports dropped by 34 percent. Due to stagnant domestic consumption, this resulted in accumulation of record high ending stocks for wheat and barley that further depressed the market. It is projected that these stocks will be exported in MY 2023/24 leading to larger than usual exports to non – EU countries, however, stocks will continue to pressure ex-farm prices and impact farmers' profitability.

Appendix.

Table 1. Grain Crops Production Data MY 2023/24 and MY 2022/23, November 2023

Crops	Area Harvested (000 HA)		Production (000 MT)	
	MY 2023/24	MY 2022/23	MY 2023/24	MY 2022/23
Wheat	1,215	1,206	6,819	6,448
Barley	138	122	750	625
Corn	535	520	2,292	2,554
Rice	11	11	60	64
Oats	13	11	30	26
Triticale	21	14	81	43
Rye	8	8	20	17
Sorghum	4	2	11	6
Total	1,945	1,894	10,063	9,783
Source: Eurostat data based on EU standard moisture content - updated as of November 2023				

Table 2. Winter Grains Planted MY 2024/25, HA, November 2023

	November 3, 2023	November 2, 2022	Change, Percent
Wheat	763,817	1,035,552	-26.2%
Barley	101,205	100,448	+0.8%
Rye	2,051	5,524	-62.9%
Triticale	5,206	8,792	-40.8%
Source: Bulgarian MinAg Weekly Bulletin #43, November 8, 2023			

Table 3. FAS Sofia Grain Production Estimates MY 2023/24, November 2023

Crops	Area Harvested, HA	Production, MT
Wheat	1.2 million	6.8 million
Barley (winter and spring)	138,000	750,000
Corn	535,000	2.5 million
Total	1,873,000	10,050,000
Source: FAS Sofia		

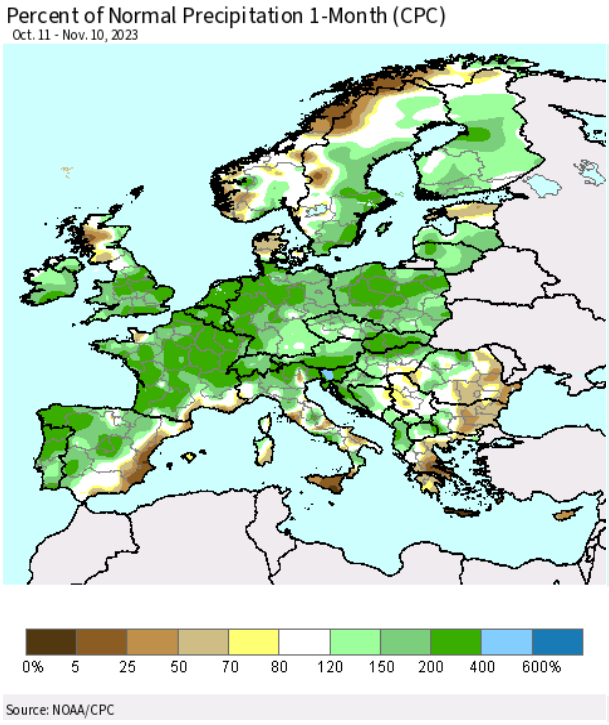
Table 4: MY 2023/24 Trade in Major Grain Crops, as of November 10, 2023

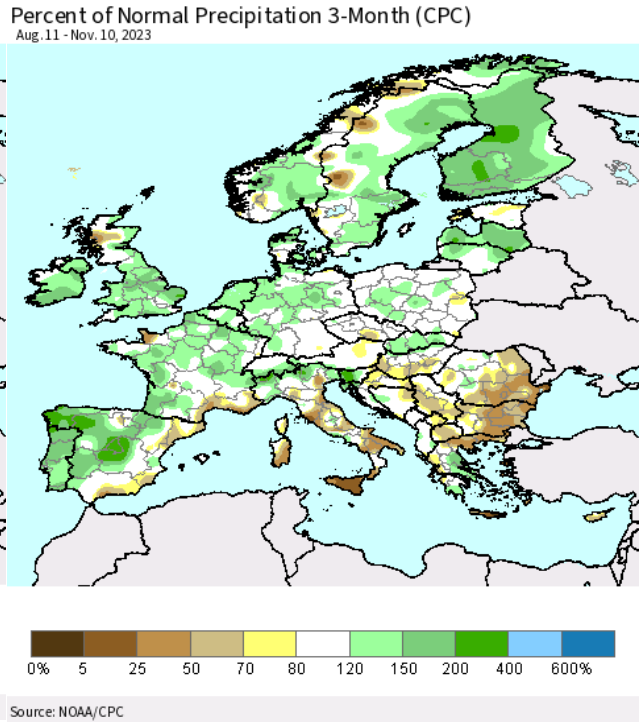
Types of Grains	Imports, MT	Exports, MT
Wheat	5,261 MT	3,001,585 (including 2,169,495 MT to non-EU markets);
Barley	0 MT	348,006 MT (including 133,454 MT to non-EU markets);
Corn*	747 MT	176,610 MT (including 143,847 MT to non-EU countries)
Source: MinAg Weekly Grain Market Bulletins 2023. *****Note: The Bulgarian MinAg uses September 1-August 31 as a MY for corn. Trade data refers to 2023 corn crop traded since September 1, 2023		

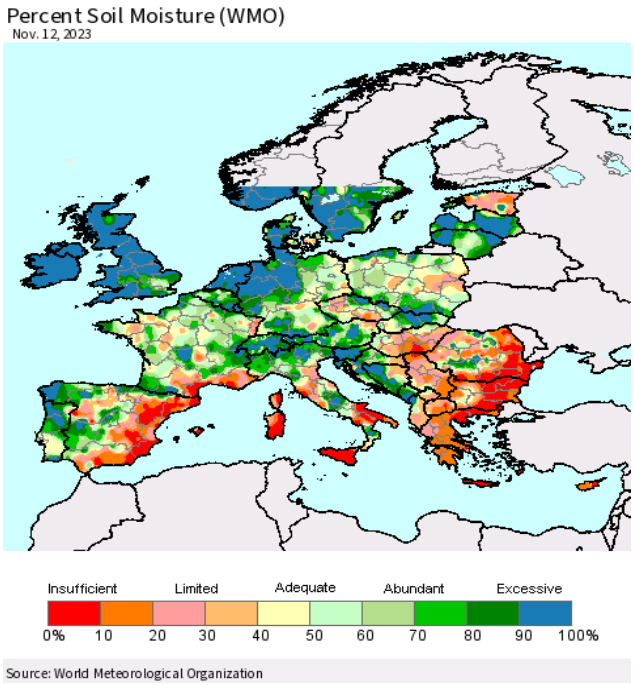
Table 5. Grain Exports, Imports, and Stocks in MY 2022/23 and MY 2021/22, in MT

Types of Grains and Use	MY 2022/23	MY 2021/22	Change, MY 2022/23 to MY 2021/22 in Percent
Wheat Imports (in WGE/wheat equivalent)	85,332	102,489	-17%
Wheat Exports (in WGE/wheat equivalent)	4,155,313	5,895,646	-30%
Wheat Stocks (June 30)	1,035,014*	296,648*	+349%
Barley Imports	6,279	1,485	+423%
Barley Exports	256,012	443,457	-42%
Barley Stocks (June 30)	302,116*	116,294*	+260%
Corn Imports	43,751*	113,352	-58%
Corn Exports	1,080,781*	1,387,764	-34%
Corn Stocks (August 31)	181,181*	474,511*	-62%
Source: Trade Data Monitor and * MinAg Weekly Grain Market Bulletins 2023			

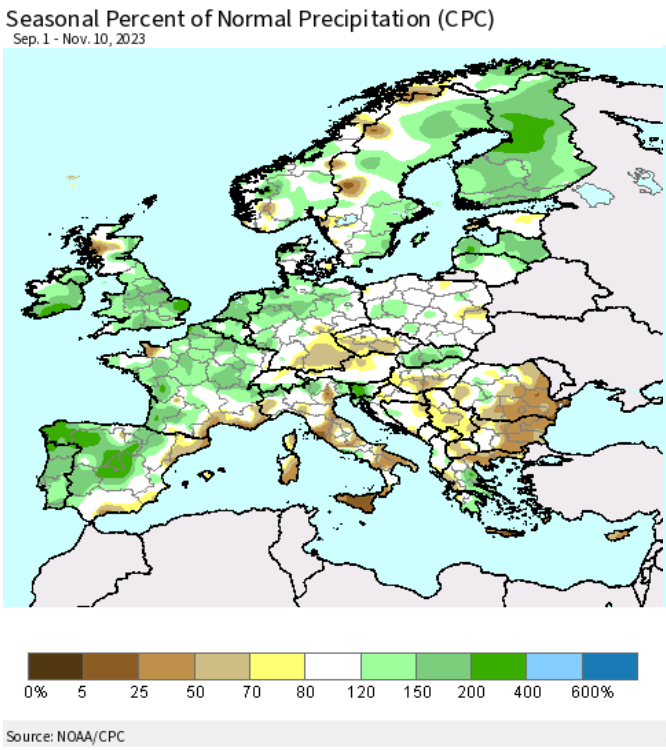
Map 1: USDA Crop Explorer, Europe, Percent Normal Precipitation, October 11-November 10, 2023 and for August 11 – November 10, 2023; Percent of Soil Moisture November 12, 2023

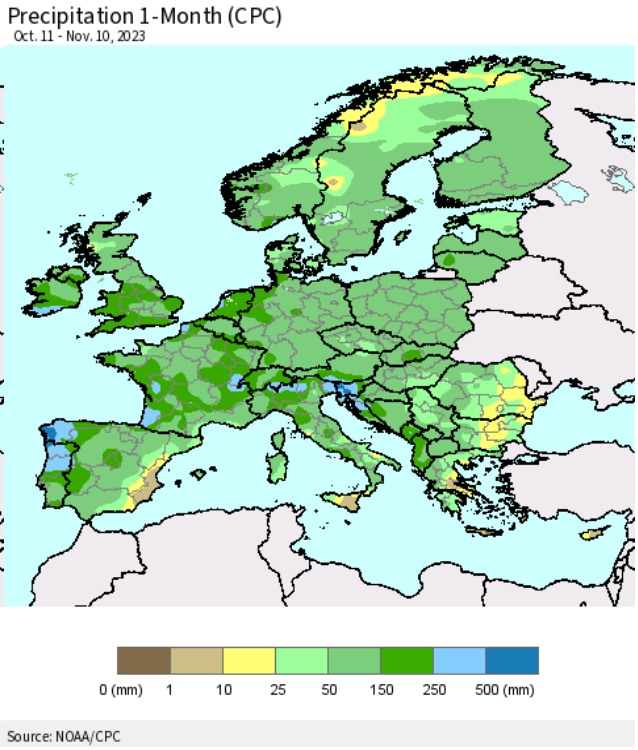




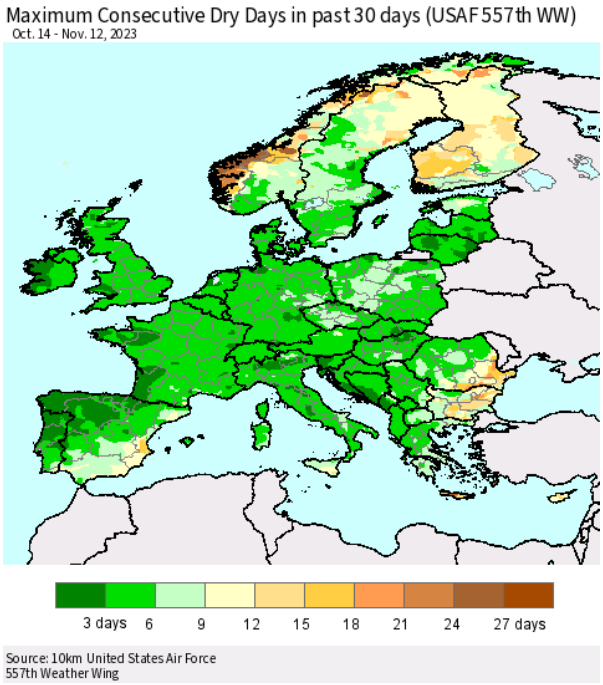


Map 2: USDA Crop Explorer, Europe (including Bulgaria), Seasonal Percent of Normal Precipitation September 1- November 10, 2023 and Precipitation October 11- November 10, 2023

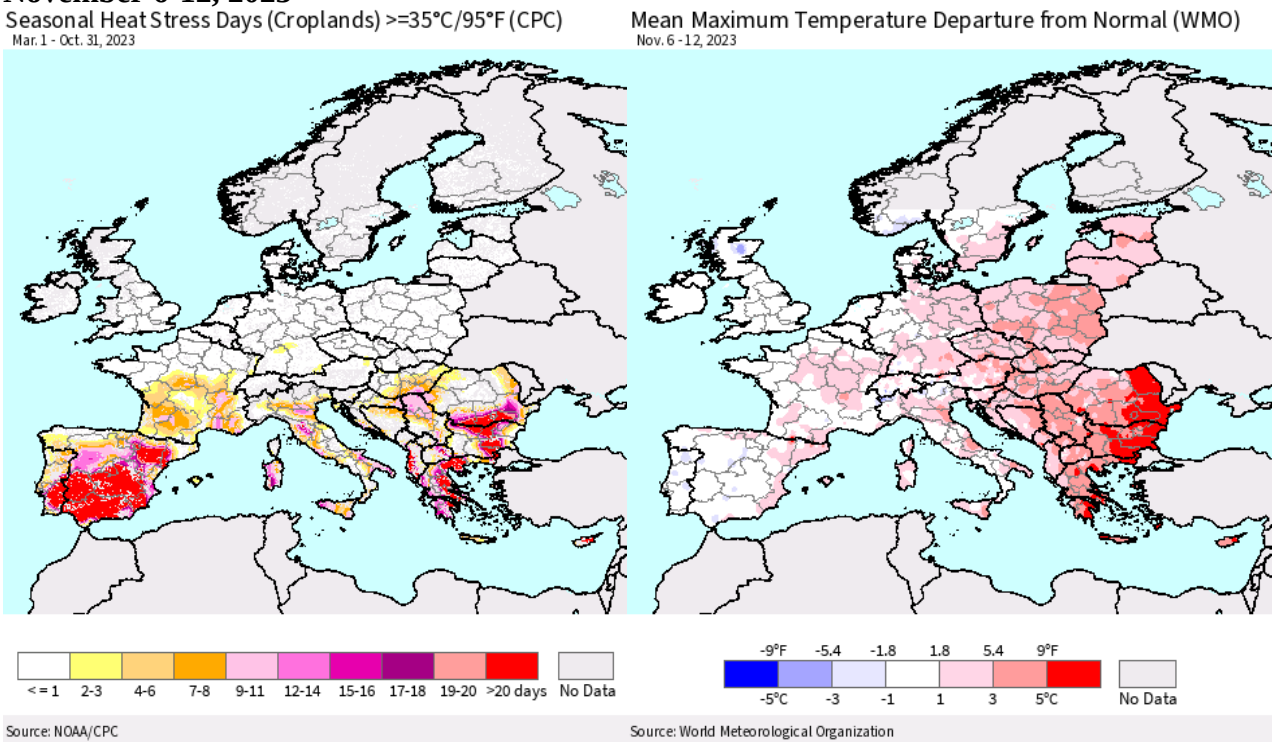




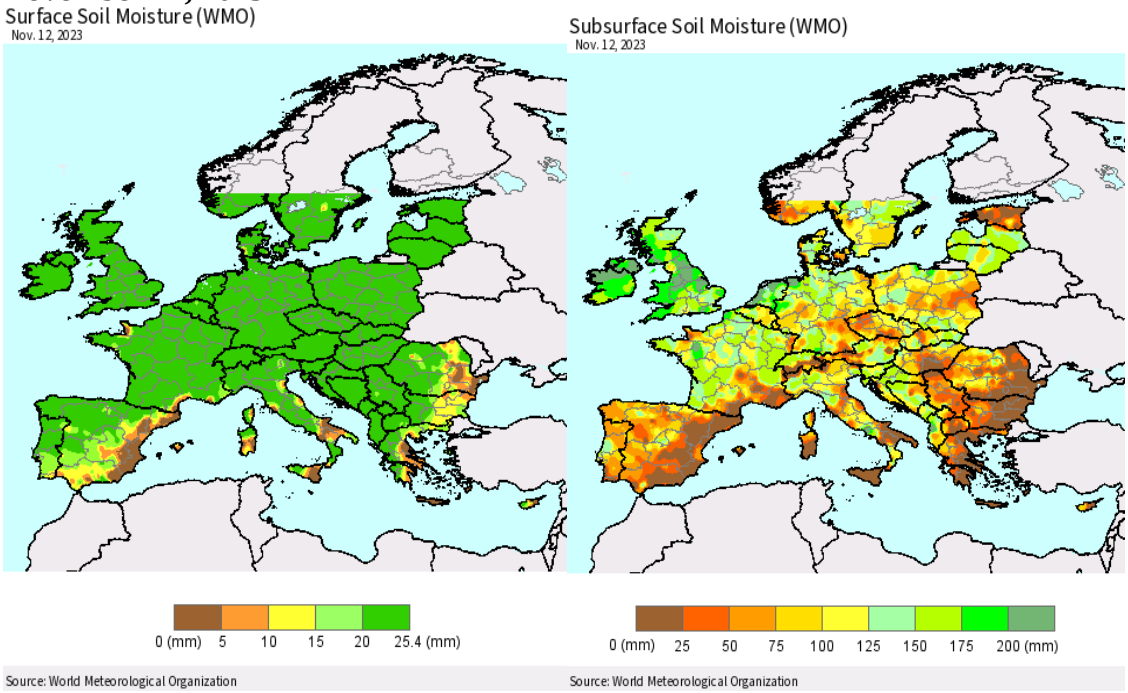
Map 3: USDA Crop Explorer, Europe (including Bulgaria), Maximum Consecutive Dry Days in past 30 days, October 14-November 12, 2023



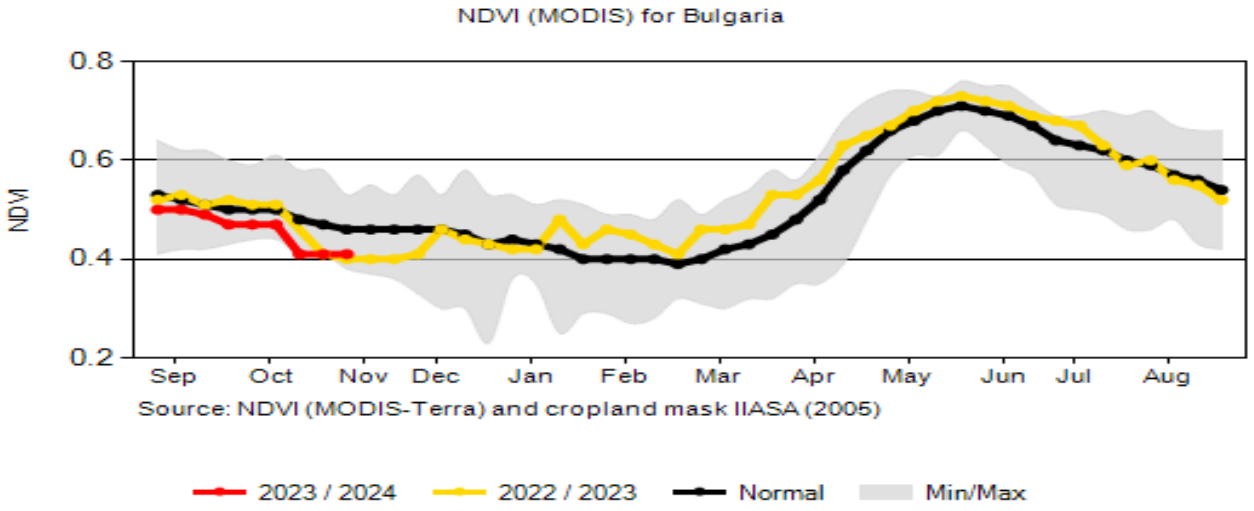
Map 4: USDA Crop Explorer, Europe (including Bulgaria), Seasonal Heat Stress (Croplands), March 1- October 31, 2023 and Mean Maximum Temperature Departure from Normal, November 6-12, 2023

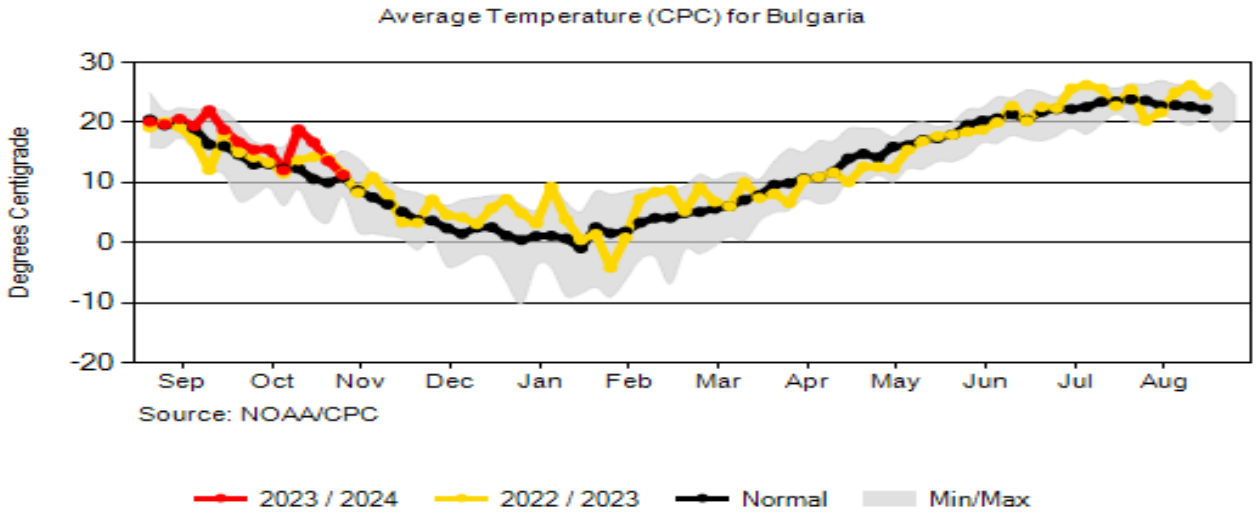


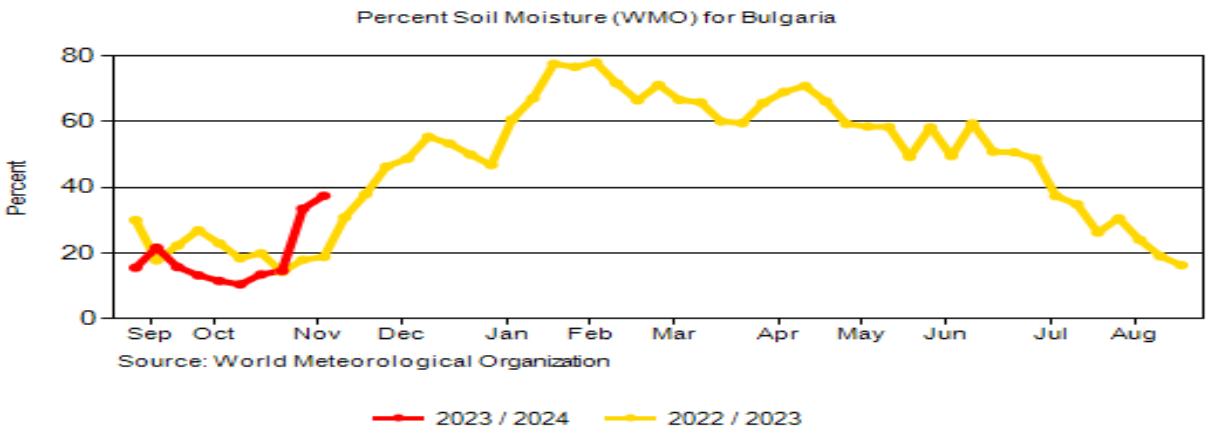
Map 5: USDA Crop Explorer, Europe (including Bulgaria), Surface and Subsurface Soil Moisture November 12, 2023

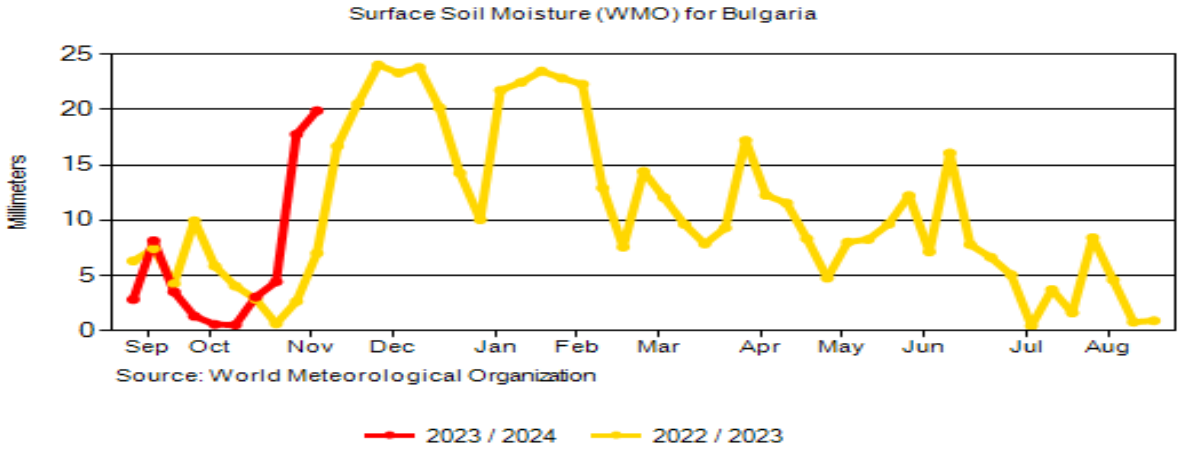


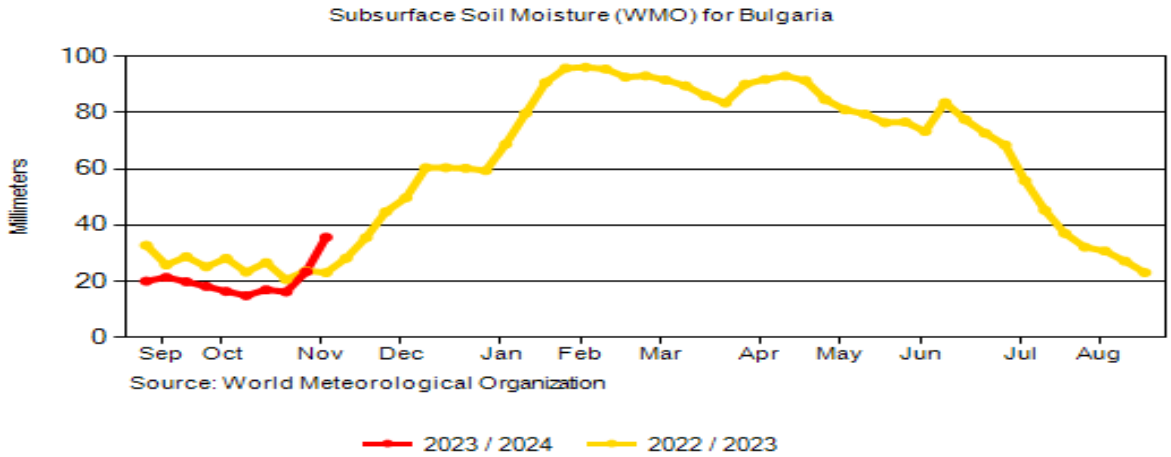
Map 6. USDA Crop Explorer, Bulgaria, Vegetation Index (NDVI), Average Temperature, Percent of Soil Moisture, Surface and Subsurface Soil Moisture, as of June 2023



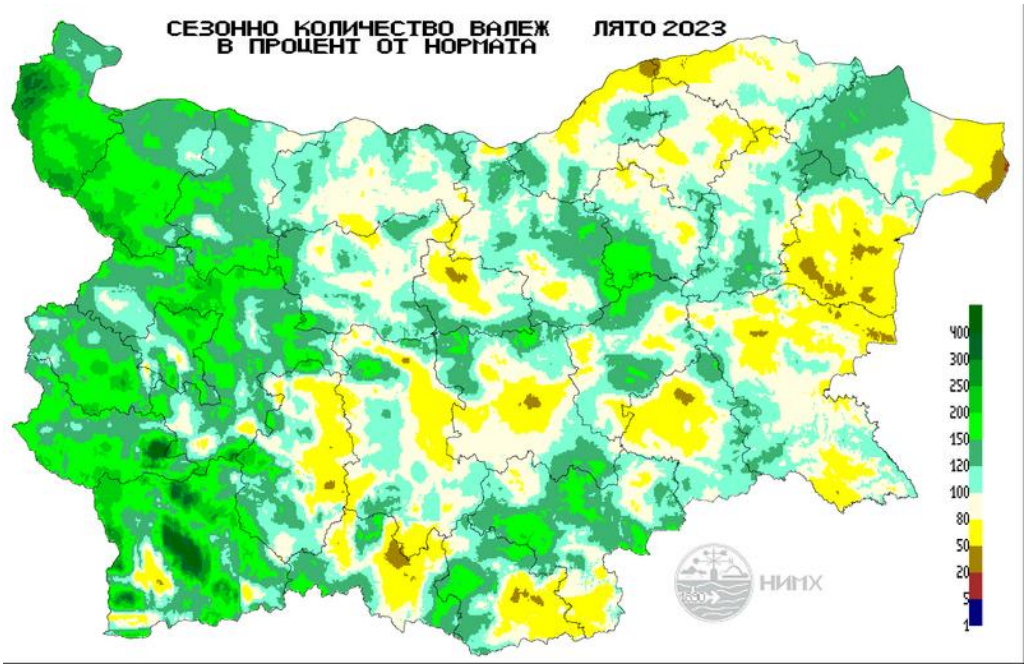



Percent Soil Moisture (WMO) for Bulgaria
Percent
80
60
40
20
0
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug
Source: World Meteorological Organization
2023 / 2024
2022 / 2023

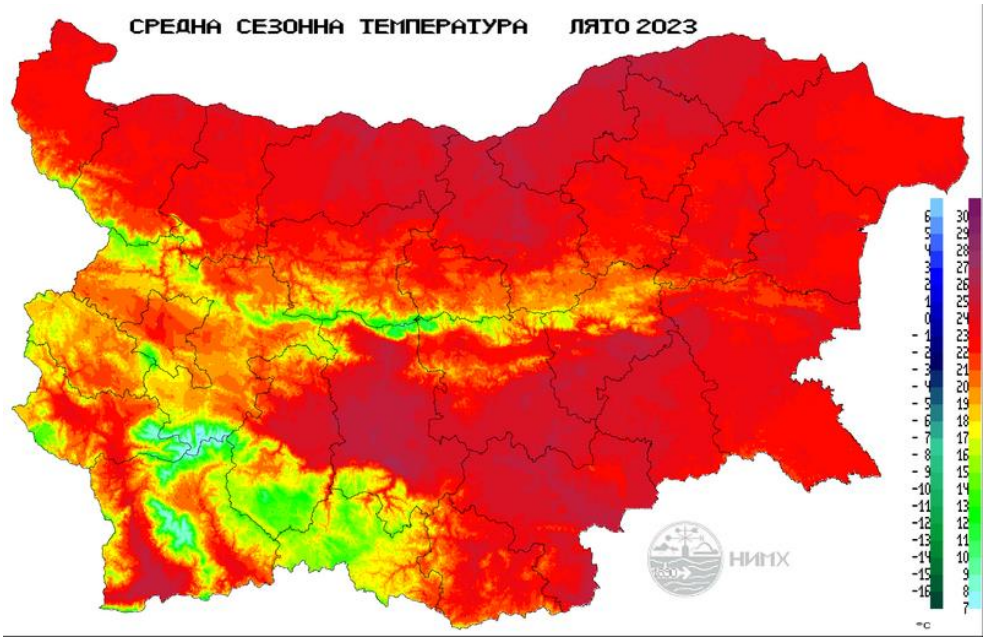

Surface Soil Moisture (WMO) for Bulgaria
Millimeters
25
20
15
10
5
0
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug
Source: World Meteorological Organization
2023 / 2024
2022 / 2023


Subsurface Soil Moisture (WMO) for Bulgaria
Millimeters
100
80
60
40
20
0
Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug
Source: World Meteorological Organization
2023 / 2024
2022 / 2023

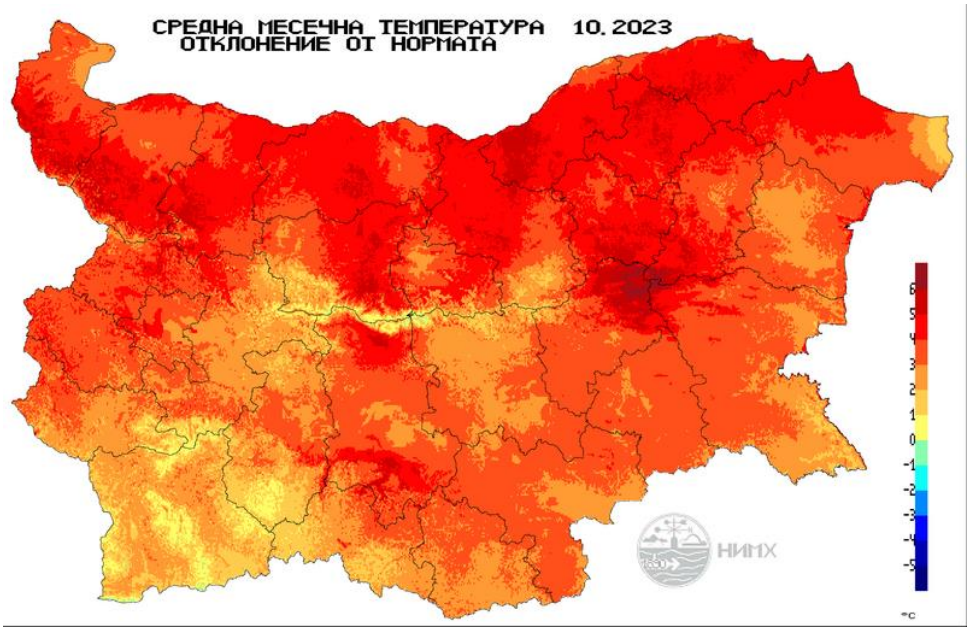
Map 7. Seasonal Rainfall Summer 2023 as a Percent of the Norm, Source: [Bulgarian National Institute of Meteorology and Hydrology]

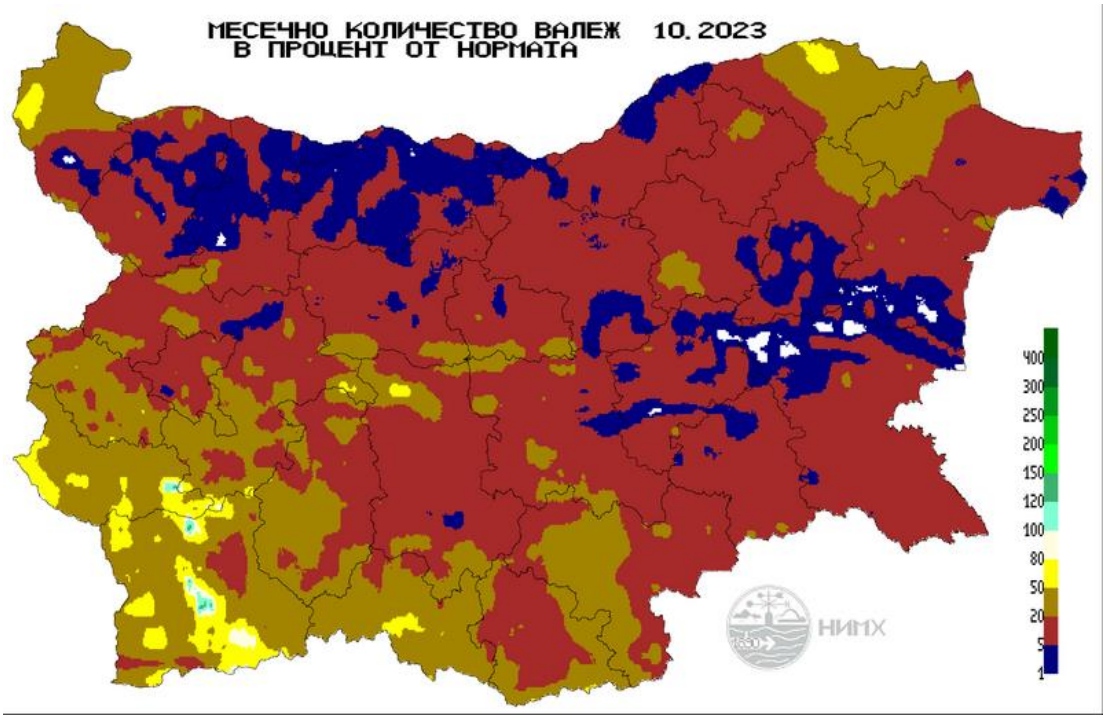


Map 8: Summer Season 2023: Deviation from the Average Seasonal Temperature Norm, Source: [Bulgarian National Institute of Meteorology and Hydrology]



Map 9. October 2023, Deviation from the Average Monthly Temperature and Rainfall as Percent of the Norm, Source: [Bulgarian National Institute of Meteorology and Hydrology]





Attachments:

No Attachments.