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MARS BULLETIN

**Review of the 2005/2006 campaign
and sowing situation for the new 2006/2007 campaign
1 September – 10 November 2006**

Mail version
Part 1/1: Campaign analysis



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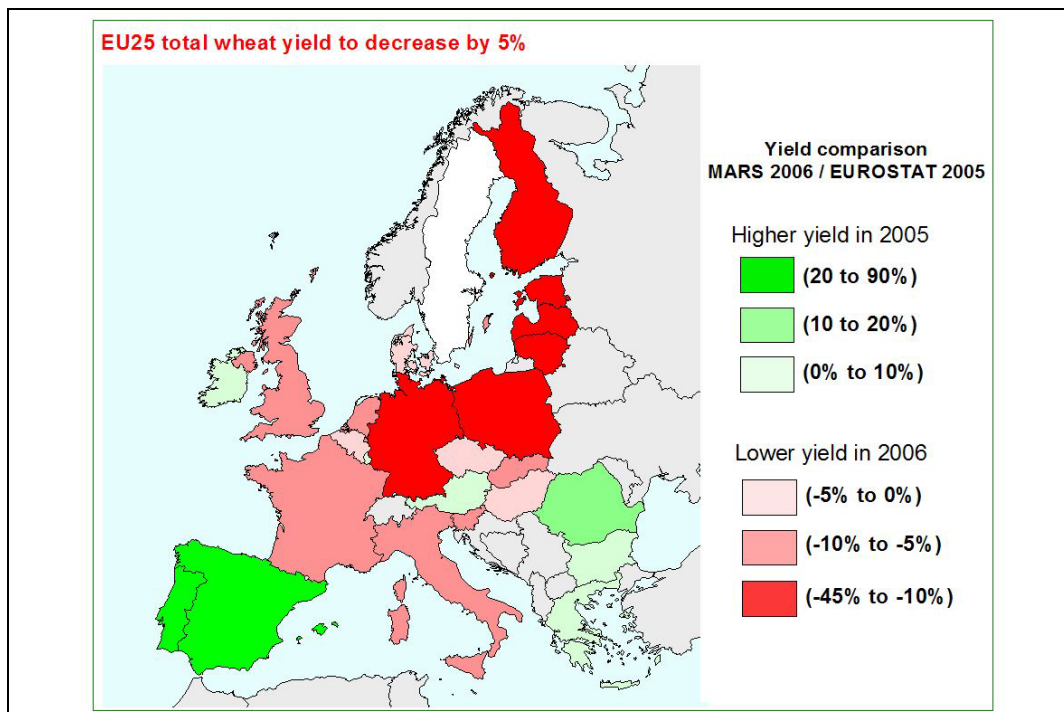
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A below average cereal season explained by a hot and dry summer followed by over-wet conditions at harvest



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Part 2/2: CROP YIELD FORECASTS AT NATIONAL LEVEL

A. Synthesis of the 2005/06 campaign

1. Crop yield forecasts at EU25

CROPS					
	2005	2006	Avg. 5 years	% 06/05	% 06/Avg.
TOTAL CEREALS	5.0	4.8	5.0	-4.3	-3.5
Soft wheat	6.0	5.6	5.9	-6.6	-4.9
Durum wheat	2.5	2.6	2.5	3.7	0.8
Total wheat	5.4	5.1	5.3	-5.4	-3.7
Total barley	4.1	4.0	4.3	-1.0	-5.9
Grain maize	8.4	8.1	8.0	-3.3	2.1
Other cereals (1)	3.3	3.2	3.3	-3.1	-3.8
Rape seed	3.3	3.0	3.0	-8.4	-0.4
Sunflower	1.9	1.9	1.8	0.0	4.6
Potato	29.6	28.4	28.1	-4.1	0.8
Sugar beet	61.1	60.1	56.8	-1.6	5.7

2. Highlights for 2005/06

The EU final cereal yield figure for 2005/2006 campaign is foreseen at 4.8 t/ha (about -4.3% compared to 2005 and -3.5% compared to average). A good tail of summer brought positive temperature conditions for the last part of the grain maize cycle (September – October 2006).

The season was initially characterized by a general delay in development because of cooler temperatures and prolonged snow presence. This determined for instance a delay in sowing spring crops (i.e. barley) in central areas. Dry and hot conditions followed in summer affecting crop yields in most western/central areas (Baltic area, Poland, Germany, France). Spain and Portugal recovered crop performances as compared to the catastrophic 2005 season, maintaining however results below average. Excessive wetness followed the dry and hot spell in central northern EU, spoiling and delaying significantly the harvests in Germany, part of north-eastern France, Benelux area and Poland.

The impact on the European total cereal potential production is a reduction of the average yield from 5.0 t/ha in 2005 to 4.8 t/ha (now -4.3%). This figure is below average by 3.5%. Out of the about 5% reduction expected in cereal production about 1% is explained as area reduction and 4% as yield reduction. Including the expected area reductions the final cereal harvest is expected to range between 242 and 246 Mt, which is a reduction of at least 14 Mt compared to 2005 and of 45 Mt as compared to 2004 and of at least 15 Mt compared to average.

In terms of yield the most affected cereal Europe wide is soft wheat with an expected yield of 5.6 t/ha which is a reduction of 6.6% as compared to 2005 and of 4.9% as compared to average. Germany, Poland, Baltic countries, UK and France marked strong-to-significative yield reductions. At EU level, the effect of yield reductions integrated with area decreases is resulting in 9 Mt of production less. Last maize forecasts are revised upward according to beneficial rains occurred at the end of summer and favorable temperatures received until October. The expected EU Maize yield is now 8.1 t/ha (-3.3% as compared to 2005 and +2% to average).

3. CLIMATOLOGICAL OVERVIEW for 2005/06

AUTUMN 2005 (October - December): generally milder than average autumn (especially in eastern EU and Eastern Countries). Limited frost risk conditions.

Relatively dry in Central EU, UK and Baltics; more than average water supply in the Mediterranean, Balkans and Black Sea area.

Mild conditions occurred until the end of **October**, favouring a rapid germination of the new winter cereals. In **November**, all over the EU, the temperatures progressively decreased toward more

normal values: in the second half of the month, in the majority of EU territories some frost events were recorded with even some intense events (-7° / -8°C) but in general with sufficient snow cover protection. In **December**, another temperature reduction occurred and colder than normal conditions were present mainly in eastern Spain, France and north-western Italy; while eastern EU experienced still relative milder temperatures. In the last part of the month, an Arctic air intrusion took place and a further drastic temperature drop was recorded causing possible frost damages in northern and southern France (Picardie, Champagne-Ardenne, Midi-Pyrenees), in central Spain (Aragon, Castilla-la Mancha, Castilla y Leon) and central Germany.

In this season, as a whole, rainfall shortages were recorded in central EU (North-eastern and central-southern France, Benelux, western Germany, northern Italy, western Czech Republic) in western and southern Spain and Portugal (deficit values around 80-100 mm) and also in south-eastern England (Essex). Nevertheless, all these areas received enough water to compensate the modest crop water requirements. Opposite conditions occurred in the areas between Algeria and Poland, the Balkans and in particular in central and southern Italy and Greece where persistent (more than 25 rainy-days) and abundant rainfall (350-450 mm, +80/110% compared to LTA) were recorded. The rainfall was particularly concentrated between November and December. Also, some very intensive showers occurred in North and central Italy (197 mm recorded the 2nd of December), Sicily, south-western France, Slovenia, Peloponnesus and south-western Turkey.

WINTER 2006 (January – March): Colder than normal in central and northern EU, as well as in Eastern Europe with possible significant frost damages. Beneficial water supply in Mediterranean, relatively dry at higher latitudes.

The particular and dominant synoptic circulation determined a cold air flux on central and eastern EU (mainly in January and March) and the frost events were both more frequent and more severe than expected. In these areas the absolute minimum temperatures recorded were also below -30°C , whilst in Germany, Hungary, north-eastern Italy around -15° / -18°C . Despite the low temperatures, the snow cover depth was often able to protect the crops present at that time, at least from the most severe damages. It is likely that major damages occurred in Belorussia, eastern Ukraine, Hungary, southern Romania, northern Bulgaria and locally also in Slovakia, eastern Poland and eastern Germany. The most critical periods were the last part of January and the second dekad of March when the temperatures dropped by several degrees even below the absolute minimum extreme values recorded since 1975.

In many areas of Europe, the cold air masses determined a reduced water supply in terms of rain, whilst caused abundant snow. **January** was particularly dry and practically the majority of the continent received only the 40-50% (equivalent to 20-30mm) of the seasonal cumulated rainfall (highest deficit occurred in southern UK, Poland, The Netherlands, Northern France, Denmark, Northern Germany, Benelux, Baltics, Sweden and southern Finland). **February** presented an evolution closer to seasonal values. Beneficial abundant rains were present in particular on the southern shore of the Mediterranean Basin. In the Iberian Peninsula (except in Andalucia and Galicia), Ireland and Baltic areas were recorded as having still drier than normal conditions. In these areas the rains were just sufficient to compensate the potential evapo-transpiration or even less (e.g.: Cataluña, Comunidad Valenciana, Murcia). In **March** the new cold waves at higher latitude and in northern Italy and Hungary, determined generally relatively higher levels of solar radiation and still dryer than normal conditions. On the contrary, in Portugal, central Spain, France, Italy (except North), the whole Balkan Peninsula, Ukraine, southern Belorussia and western Turkey, more than normal cumulated rain occurred.

SPRING 2006 (April – June): General seasonal thermal conditions: slightly warmer in west EU and Mediterranean, a few heat stressing days in June. Dry conditions (particularly in June) in southern France, northern Italy and Baltic's.

After a long and cold winter, progressively in **April** warmer conditions were re-established and the temperatures climbed even above the normal. Despite that, some days with very low temperatures were recorded at the beginning and the end of April and sporadic and light frost events occurred (central France, southern Germany and the Baltic's. However, at the end of April, the accumulation of the active temperatures ($T_{\text{base}} = 0^{\circ}\text{C}$) was above the normal range in the majority of EU (mainly in Spain, central Italy and southern France), as well as in Maghreb, and Turkey. In **May**, the temperatures continued to increase and the maximum daily temperatures reached high values (5-

6°C above the seasonal values) in the northern and western areas (central France, Central Spain, Benelux, northern Germany, Finland and the Baltic area) whilst more seasonal conditions occurred in southern areas. In **June** the general air masses' configuration was inverted and colder air blew from the North bringing more seasonal temperatures in the northern territories, while warmer conditions resumed in the Mediterranean countries. In the second half of June a typical summer synoptic circulation was established over the majority of Europe. A new increase of temperatures occurred in the whole continent. Extreme high temperatures above 40°C were recorded in the last part of June only in Apulia (Italy) and Andalucia (Spain).

In **April**, the rainfall was irregularly distributed: below average in the western part (mainly central and eastern Spain, southern Portugal, France, central and western Italy and southern UK and Ireland); clearly abundant in eastern areas (mainly Austria, Poland, Czech Republic, south-eastern Germany, former Yugoslavia countries, Romania). In **May**, the rain distribution was opposite to April: mainly concentrated in France, southern Spain, UK and Ireland, Maghreb, Turkey and south Ukraine; where the soil moisture was beneficially recovered; and scarce or very weak in the areas which experienced excess of water in April. The only persistent deficit conditions were recorded in central and southern Italy and southern Portugal. In **June**, the majority of the EU received a reduced amount of rain as compared to the LTA. The rain deficit was particularly severe and persistent in the whole large Mediterranean area, including also west France, as well as in the Baltic basin. The extreme shortage of rain occurred in northern Spain, southern and western France, northern and central Italy, where more than 100 mm of rain were missed. In eastern EU countries opposite conditions were recorded: in Austria (+52% compared with LTA), southern Czech Rep. (+81%, the wettest year since 1975), northern Hungary (+82%, the wettest year since 1975), Romania (+41%, also some flooding was reported) and eastern Bulgaria (+52%).

SUMMER 2006 (July – September): Very hot and dry July, especially at higher latitudes; fresh and extremely wet August; favourable September.

July was characterized by seasonal conditions over the majority of the continent with the exception of the northern part (along the English Channel coastline, Benelux, north Germany, central UK Denmark, Scandinavia, Baltic Sea areas) and in Portugal where higher than average active temperatures were recorded, i.e. in average the temperatures were 5-10°C above the seasonal normal. In **August** the synoptic circulation changed and colder conditions occurred. The temperatures dropped and in the central and west EU (northern Italy, central and southern Germany, Austria, Czech Republic, west Hungary, France, central and northern Spain) lower than seasonal average temperatures occurred. The maximum daily temperatures dropped by 10°C as compared to mid July. A significant deficit in GDD accumulation was recorded: 80-100°GDD. Opposite conditions verified in the Scandinavian Peninsula, where warmer than seasonal temperatures persisted along the whole month, in Portugal, Turkey and in the Black Sea areas. In **September** a new warmer period started in the whole EU, except for the Mediterranean areas. In particular in northern France, Germany, Denmark, Baltic Sea area and in Scandinavian Peninsula the maximum and minimum daily values climbed above the normal range.

The rains were practically absent in July and persistent and very abundant in August. The rain deficit in **July** affected mainly the central and eastern EU countries (eastern France, Luxembourg, Germany, Czech and Slovak Republics, Poland, Baltic's) and severely depressed the soil moisture. Only in southern Italy, Greece and south Spain a surplus of rain was recorded, increasing positively the soil water moisture. In **August**, on the contrary, the areas affected by drought in July, experienced a very wet period, with persistent and abundant rain. Practically, only in the Mediterranean areas a more seasonal rain distribution occurred. The cumulated rain amounts were on average above 100-120% as compared to the seasonal average and distributed in a larger number of rainy days (8-10 more than LTA). The worst conditions occurred in Poland, Austria, The Netherlands, eastern France, western Germany and southern Sweden. In **September**, the rain was concentrated in the Mediterranean Countries (eastern Spain, southern France, Italy, Greece and Turkey) and quite scarce in central and eastern EU. The most relevant deficit occurred in Benelux, northern Germany, Denmark and western Ukraine.

4. Agrometeorological analysis on the EU-25 area for

the 2005/06 campaign

Cereals

The final average crop yield, 4.8 t/ha; -4.3 compared to 2005 and -3.5% compared to average, is the result of a combined effect of a strong summer drought followed by too wet conditions at harvest. This situation affected large areas in France, Germany, Benelux, Baltic countries, Central Countries especially Poland. Besides in Poland some significative frosts occurred early in the season. The Iberian Peninsula yields recovered from 2005 very low performances but remained still below average.

Total cereals' production for EU25 (rice excluded) is now expected to range between 242 and 246 M tons (-14/-17 M tons as compared to 2005).

Soft wheat

Forecasted soft wheat yield at EU-25 level is 5.6 t/ha: -6.9 % compared to 2005 and -5.3 % compared to the 5-year average.

The decrease with respect to the average is due to the fact that all Europe experienced anomalous rainfall distribution, especially during June and July. The only exceptions to this discouraging scenario are represented by Austria (5.3 t/ha, +2.1 %), Czech Republic (5.0 t/ha, +3.4 %), Greece (2.9 t/ha, +4.4 %), Hungary (4.4 t/ha, +10.3 %), Ireland (9.0 t/ha, +1 %), Italy (5.0 t/ha, +2.2 %), Slovenia (4.4 t/ha, +0.1 %), and Slovak Republic (4.1 t/ha, +1.6 %).

The worst situations are forecasted for Germany (6.6 t/ha, -10.4 % compared to the average of the last 5 years), Estonia (2.0 t/ha, -19.5 %), Spain (2.6 t/ha, -10.1 %), Finland (2.2 t/ha, -36.9 %), Lithuania (2.9 t/ha, -18.7 %), Latvia (2.8 t/ha, -8.6 %), Poland (3.4 t/ha, -10.0 %), and UK (7.3 t/ha, -6.2 %), France (6.8 t/ha, -4.8 %).

Limited losses compared to the average are forecasted for Belgium (8.4 t/ha, -0.9 %), Denmark (6.9 t/ha, -3.4 %), Luxembourg (6.0 t/ha, -0.8 %), the Netherlands (8.2 t/ha, -3.2 %), Portugal (1.3 t/ha, -4.5 %), and Sweden (6.0 t/ha, -0.1 %).

The unusually insufficient precipitation experienced in the first part of the summer, stressed the plants, reducing their photosynthetic activity and shortening their cycles. In most cases, this second effect has been raised by the higher temperature recorded in the same period. Frost damages verified in Russia, Ukraine and, less severely, in Lithuania, western Poland, Slovak Republic and Hungary. Rainfall excesses during the harvest period could have created problems in the area delimited by southern Sweden, eastern France, northern Italy and Belarus. In this region, only eastern Germany, Slovak Republic and Hungary received more favourable conditions for harvesting.

Barley

The situation for total barley is similar to that described for soft wheat. Yield at EU-25 level is estimated at 4.0 t/ha: -0.9 % and -5.8 % respectively compared to 2005 and 5-year average. With respect to the average, the low yield for total barley is mainly due to the spring sowings (-10 %).

With respect to the average of the last 5 years, Belgium (7.7 t/ha, +5.1 %), France (6.4 t/ha, +2.7 %), Greece (2.3 t/ha, +9.2 %), Hungary (3.9 t/ha, +16.7 %), Portugal (1.3 t/ha, +1.9 %), Slovenia (3.7 t/ha, +2.8 %) are the only European Countries whose yields can be considered satisfactory.

The highest differences between 2006 forecasts and the 5-year average are for Czech Republic (3.8 t/ha, -7.6 %), Estonia (1.5 t/ha, -28.4 %), Spain (2.1 t/ha, -14.6 %), Lithuania (1.6 t/ha, -38.8 %), Latvia (1.4 t/ha, -31.7 %), Poland (2.9 t/ha, -8.2 %).

Austria (4.5 t/ha, -1.5 %), Germany (5.6 t/ha, -4.6 %), Denmark (5.2 t/ha, -0.2 %), Finland (3.1 t/ha, -4.4 %), Ireland (6.3 t/ha, -3.2 %), Italy (3.5 t/ha, -2.5 %), the Netherlands (5.8 t/ha, -2.9 %), Sweden (4.2 t/ha, -0.9 %), Slovak Republic (3.4 t/ha, -2.5 %), and UK (5.6 t/ha, -2.3 %) experienced yield reductions lower than 5 % compared to the 5-year average.

The agrometeorological situation discussed for soft wheat is valid also for winter barley. These crops suffered from frost damages in some important areas in 2006 (see Poland). The combined effect of abundant rainfall and melting snow probably hampered spring barley sowings in central Europe. This could have lead to a significative delay or to miss sowing in many regions, situation confirmed

by the expected reductions in spring barley acreage in the interested country as in Slovak Republic and Germany.

Grain Maize

Grain maize is forecasted to yield 8.2 t/ha at EU-25 level: -2.9 % and +2.6 % respectively as compared to 2005 and the 5-year average.

Among the main producers, only France (8.5 t/ha, +2.0 % compared to 2005) is expected to avoid a significant reduction with respect to 2005. Italy (9.1 t/ha, -2.7 %), Romania (3.5 t/ha, -12.4 %), and Hungary (6.7 t/ha, -11.7 %) suffered the unfavourable conditions which characterized the first part of the summer. These conditions interested almost all Europe: reductions compared to 2005 are forecasted also for Germany (9.1 t/ha, -1.6 %), Poland (5.4 t/ha, -6.4 %), Bulgaria (4.8 t/ha, -10.0 %), Austria (9.3 t/ha, -9.8 %), Slovak Republic (5.7 t/ha, -19.6 %), Belgium (11.6 t/ha, -1.2 %), Czech Republic (7.0 t/ha, -3.0 %), the Netherlands (11.7 t/ha, -4.3 %), and Slovenia (6.9 t/ha, -16.7 %).

Good expectations are shown by Portugal (6.1 t/ha, +29.9 %), Spain (9.8 t/ha, +1.7 %), and Greece (9.5 t/ha, +5.9 %).

The crop suffered in many Countries the combined effect of an extraordinary dry July and of the heat wave which invested the central Europe. In the same regions, water excesses were recorded during August. This could have created problems to the late sown varieties because of the negative effect of stormy events during flowering and, in general, problems related to diseases, also favoured by a mild September.

Oilseeds

Rapeseed

The final yield expectation at EU-25 level is 3.0 t/ha: -8.4 % and -0.4 % respectively compared to 2005 and the average of the last 5 years.

A good year is forecasted for Austria (3.3 t/ha, +24.7 % compared to 5-year average), Czech Republic (2.9 t/ha, +11 %), Hungary (2.5 t/ha, +24 %), and Poland (2.7 t/ha, +12.2 %).

This situation is partially compensated for by the low yields expected for Estonia (1.3 t/ha, -16.9 % compared to the average), Latvia (1.6 t/ha, -6.1 %), and UK (2.8 t/ha, -8.3 %).

For the other Countries, the difference between 2006 forecasts and the average of the last 5 years is expected to be less than ± 5 % of the average value. 2006 forecasts are 3.8 t/ha (-1.0 %) for Belgium, 3.4 t/ha (-2.3 %) for Germany, 3.0 t/ha (-4.4 %) for Denmark, 1.3 t/ha (+3.2 %) for Finland, 3.3 t/ha (+2.0 %) for France, 1.7 t/ha (-4.1 %) for Lithuania, 2.5 t/ha (+1.6 %) for Sweden, and 2.1 t/ha (+0.8 %) for Slovak Republic.

The crop has been harvested before the summer drought which affected wide regions in Europe; therefore, damage due to low soil moisture is excluded. The low susceptibility of rapeseed to frost damages avoided the problems encountered by winter wheat and barley.

Sunflower

The expected yield for sunflower is about 1.9 t/ha at EU-25 level: the same of that recorded for 2005 and +4.6 % compared to the average of the last 5 years. Anyway, a significant increase in the cultivated area is leading to a significant increase in EU-25 productions (about 8% higher).

Considering the yield, the worst situation is forecasted for Germany (2.1 t/ha, -14.2 % compared to 2005), fortunately the smaller European producer. Italy (2.1 t/ha, -6.2 %), Slovak Republic (2.0 t/ha, -6.6 %), and Czech Republic (2.3 t/ha, -5.2 %) are other countries where the unfavourable meteorological conditions already discussed for Grain Maize penalized the 2006 campaign.

Although the misleading 25.4 % increase with respect to 2005, the Spanish situation (0.87 t/ha) is still below the 5-year average (-9.2 %). Slightly favourable or average yields are forecasted for France (2.4 t/ha, +1.0 % compared to the last year), Hungary (2.2 t/ha, +1.1 %), and Austria (2.8 t/ha, +3.5 %).

Root and tuber crops

Sugar beet

At EU-25 level, yields are expected to be higher than the 5-year average (59.93 t/ha, +6.4 %) and slightly lower than the last year (-0.2 %).

General good agrometeorological conditions were experienced by the main producers. (Germany, France, Italy, UK) have been leading a yield increase respectively at +4.5% (60.3 t/ha), +6.1 % (81.8 t/ha), +2.1% (47.2 t/ha) and +6.2% (58.8 t/ha) as compared to last 5-year average. These good results appear reduced as compared to the very good previous campaign and therefore also with some negative values, respectively: +0.2%, -0.7%, -15.6%, +2.6%. Among the big producers, in Poland the unfavourable conditions slightly depleted the yield which is forecasted at 40.2 t/ha (-3.4% as compared to 2005 and -2.2% lower than 5-year average). Amongst the other producers, Hungary, Portugal, Spain and Czech Republic are expected to obtain yields significantly higher than the 5-year average (+47.3%, +12.9%, +15.4%, +8.4 respectively). On the contrary, very unfavourable conditions occurred in Finland, the Baltics and Poland, although their impact on EU productions will be marginal.

Potato

Average yields are expected EU-25 level higher than the last 5-year average (+0.8%) but quite lower as compared to the last season (-4.1 %).

In the majority of the countries the negative signs are dominant as compared to the previous campaign: Poland -4.2% (16.9 t/ha), Germany -11.2% (37.3 t/ha), The Netherlands -4.7% (41.5 t/ha), United Kingdom -2.3% (41.3 t/ha). Slightly more favourable conditions occurred in France where the yield is forecasted at 42.1 t/ha (-0.3% as compared to 2005, but +1.3% as compared to the last 5-year average). Relative better results are expected in Spain, with yield at 37.8 t/ha (+15.7% as compared to 2005), Portugal, at 15.9 t/ha (+15.7%) and Greece at 24.6 t/ha (+2.7% as compared to 2005).

Rice

Forecasted yield at EU-25 level is 6.5 t/ha: -0.8 % and -1.0 % respectively compared with 2005 and the average of the last 5 years.

Forecasts for France (6.8 t/ha), Greece (8.0 t/ha), and Portugal (5.9 t/ha) are higher than 5-year average: respectively, +3.4 %, +4.8 %, and +2.5 %. Italian rice is forecasted to yield 6.3 t/ha (-0.1 %) while in Spain the yield is expected to be reduced by at least 4.3 % (slightly below the 7 t/ha threshold). Here the impact of the summer drought on final yields could have lead to a higher reduction than reported, depending on the efficiency of the water management (not covered by our analysis). In general, in most of the areas of analysis, water reserves allowed the crops to avoid significant damages due to water stress. Besides, the expected decrease in production is mainly attributed to the reduction of the rice-cropped area. In particular, Spain and France experienced a considerable reduction in surfaces with respect to the average of the last 5 years.

The Rhône (FR) and Ebro (SP) deltas experienced conditions most favourable to blast disease infection compared to the average.

5. Agrometeorological analysis on the Black Sea area 2005/06

ROMANIA and BULGARIA: Another very wet year

Wheat yields are expected at 3.5 t/ha for Romania and 3.4 t/ha for Bulgaria. As compared to 2005 these figures show an increase respectively of 16.8%% and +8.2%.

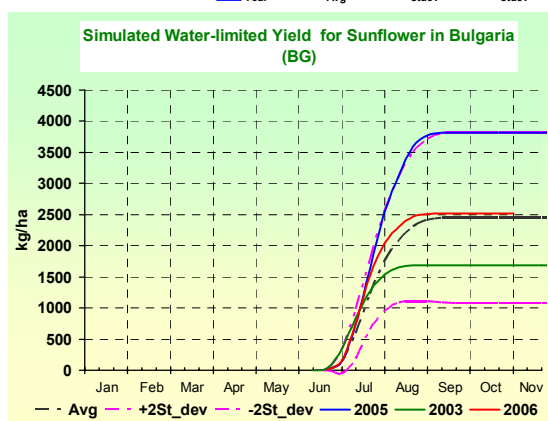
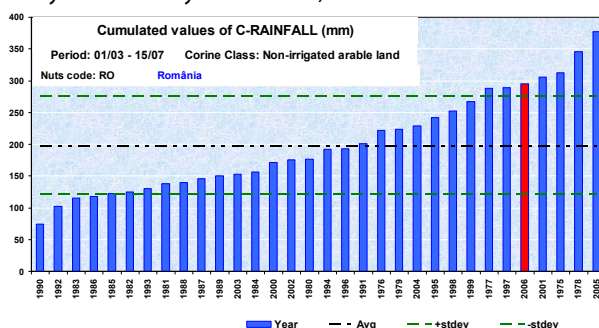
Barley yields are expected at 2.2 t/ha for Romania, (-9.3% from the average yield of previous 5 years) and 2.9 t/ha for Bulgaria, (+0.8 % ref. average 5 years). For maize the figures are 3.5

t/ha for Romania (+0.1 % ref. average 5 years) and 4.8 t/ha for Bulgaria (17.4 % ref. average 5 years).

For Romania and Bulgaria the conditions for sowing winter crops during autumn 2005 were rather acceptable and the weather during emergence and tillering was favourable.

Both countries experienced very low temperatures in the third decade of January. For Romania, some local damages were foreseen (in Transylvania and Dobrogea) due to the poor snow cover which was not able to protect the winter wheat crops (-15°C at crown at 3 cm soil depth). Development stage of winter cereals was in delay till last decade of March when the long term level was reached. March was very wet in Bulgaria and was the wettest from the last 30 years in Romania. Sowing of spring crops was hampered in many areas and their emergence was delayed.

The July – August period was also wetter than usual. In Romania a large amount of precipitation (>70 mm) was cumulated in the next 10 days after the flowering of winter wheat in the north – western areas and barley (especially in the south-western areas). The weather during expected harvesting period was generally dry for the main agricultural areas. For both countries the forecasted yields for winter and summer crops were close or above the average of the last 5 years (excepting a -10% lower yield of barley in Romania).



TURKEY: A positive start of the season was followed by diffuse drought during summer

The estimated yield for winter wheat is 2.1 t/ha with a reduction of -5% on 2005 while the yield estimate for barley is 2.4 t/ha (-3% on 2005).

The start of the agricultural season in Turkey was characterized by dry conditions which can be considered as positive for sowing of winter crops. During winter the central highlands of Anatolia experienced minimum temperatures around - 20° but these extremes did not seriously affect the crop as the snow cover protected cereals from major frost damages. On the Aegean coast rainfall levels remained slightly below the norm while around the Black Sea the climate was characterized by good rainfall and low temperatures. During spring precipitation was reduced in the main cereal production areas of north-west and central Anatolia, however, the winter abundance of precipitation left a sufficient soil moisture supply and the dry weather found winter wheat in the less susceptible stages of heading while barley had completed flowering. No rainfall shortage was reported on the Mediterranean coastal areas and global radiation remained on normal levels. Dry

conditions started in early May and continued throughout June, worsening towards the eastern regions of the country. On the western Black Sea and the Aegean coast rainfall levels were still adequate but these conditions were not sufficient to compensate the heat waves in the central highlands which resulted in a decrease in yield for winter cereals.

Dry condition and high temperatures persisted throughout July and August. The worst affected areas were in the north-western and the central part of the country as well as around the Black Sea, in regions which are the main maize cultivation areas. The drought slightly eased at the beginning of September when some limited precipitation combined with a general lowering of temperatures was reported in the north. Also this late improvement in the weather was not sufficient to make up for the overall moisture deficit affecting summer crops. **The productive cycle of maize closed at the beginning of September and the estimated yield for 2006 is 5.03 t/ha, with a reduction of over 16% on the 2005 season.** The outcome could have been worse if it wasn't for the contribution of the south Mediterranean and Aegean regions which account for 30% of the maize cultivated surface but are for the most part irrigated.

UKRAINE: cold winter but good sowing conditions for spring crops

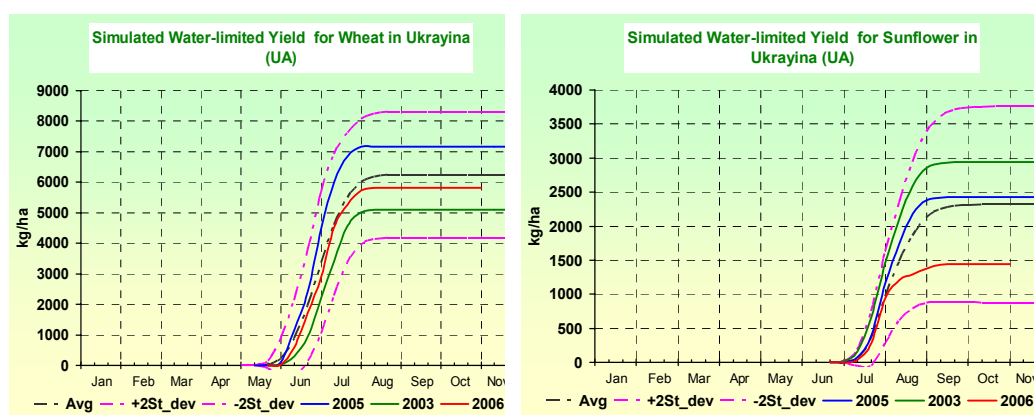
Expected yields are: 2.6 t/ha (-2.9 % from the average yield of the last 5 years) for winter wheat (i.e. -5 % less than 2005), 2.3 t/ha (1.9% from average and +5.5% from 2005) for barley and 3.5 t/ha (-0.1% from average) for maize.

During autumn 2005 the sowing of winter wheat in Ukraine was performed under generally dry conditions but the soil water available to crops was lower than usual causing a non-uniform emergence especially in southern Ukraine (where the water balance for October was within -30% below long term average). A similar "dry scenario" occurred for winter barley sowing.

From mid-January until 10th March, four unusual (below 2 standard deviations) frost waves hit most of the Ukraine. The minimum temperatures varied from -35°C in the eastern Ukraine (Luhans'ka) to -24°C in Crimea.

During the first part of the spring the central and northern areas of Ukraine were cooler than normal (<-30%), meanwhile the western (for example Volyns'ka) and southern areas (Nykolaev) were drier in this period than usual (-25%). Most of the rain was concentrated in the first two decades of April. The weather conditions for sowing of spring wheat were normal. Excepting some local delays a timely sowing of other spring crops was also possible. Excepting the Black Sea coasts, which remained dry till end of June, during the second half of May the soil moisture of Ukraine increased very much due to heavy rain.

Simulated yields of winter crops were slightly below long term average and large yield reductions are expected for maize and sunflower.



6. Agrometeorological analysis on the Maghreb for 2005/06

MOROCCO, TUNISIA and ALGERIA: A favourable winter season was followed by a moderate drought in spring and summer more relevant to the east

Most of the Maghreb experienced higher than average rainfall in November and December 2005. These conditions can be considered optimal for the germination and emergence of winter cereals, which in the region are commonly sown late. This positive trend continued into the 2006 winter season and the weather was marked by higher than average precipitation coupled with temperatures slightly below the norm. Conditions started deteriorating at the end of March and into April; when warm and dry weather lowered soil moisture availability to winter cereals. Precipitation picked up again at the beginning of May but not significantly and the season remained rather dry, with an increasing rainfall shortage moving east from Morocco into Algeria and Tunisia.

In Morocco the average yield of wheat was 1.42 t/ha, slightly lower than average (-2%) but with a significant recovery over the dry 2005 season (+38%). Barley has a similar trend achieving a yield of 0.9 t/ha. In Algeria yields were lower than 2005 (-5%) but increasing over the 5 years average for both wheat (about 1.4 t/ha) and barley (about 1.5 t/ha). A negative outcome was reported for barley in Tunisia which achieved 0.9 t/ha with a reduction of -20 % over 2005 and -6% over the 5 yrs average. Results were better for wheat which achieved 1.7 t/ha increasing on 2005 but lower than the 5 yrs average. The summer was fairly dry over most of the Maghreb region. There was however significant rain at the end of August especially in the western portion of the region, which is a good omen for the approaching sowing season for the 2006-07 winter crops. Summer crops are still not relevant as they are mostly cultivated under irrigation. Grain maize has however some relevance in Morocco where it yielded about 0.7 t/ha, improving on the 5 yrs average.

7. Agrometeorological analysis on the eastern countries for 2005/06

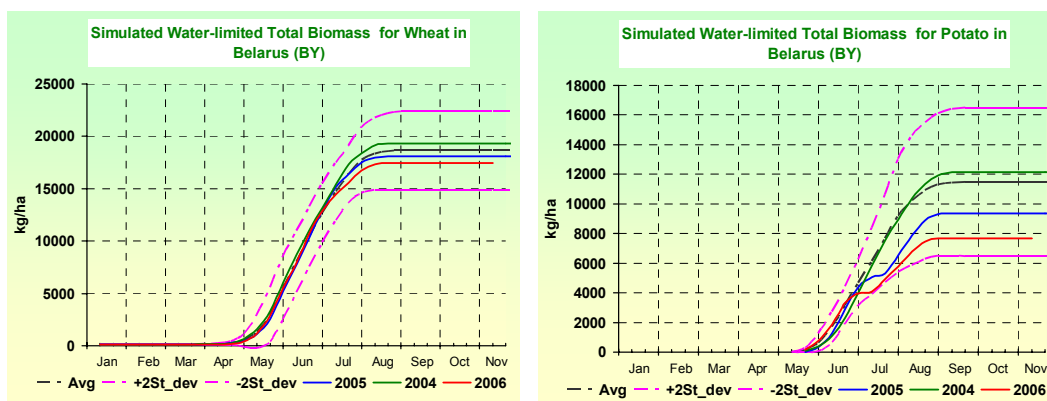
BELARUS: very in cold winter, dry in spring and summer.

The forecasted yield for wheat is 3.0 t/ha (- 26.7 % from previous year).

The weather conditions for November – December were generally favourable to winter crops (warmer than usual and for December also richer in precipitation).

During January-February, winter wheat crops from large areas in northern Belarus were highly affected by several frost spells (the minimum temperature at 3 cm soil depth, decreased below -18°C for more than 2 days). For other areas, except western Belarus, significant damages were possible also for winter barley and rape seed. In the western Belarus (Gorodno) where the simulated soil temperature (3 cm depth) didn't reach -15°C (only less than 5 days with temperatures below -12°C) the damages on winter wheat crops were significantly lower than in the rest of the country.

The winter crops were also affected by dry weather for the rest of the crop cycle, excepting a wetter period in June. The simulated yields of summer crops were slightly below long term average except potato yield which was visible lower.



RUSSIA: good yield of spring grain and summer crops and unfavourable conditions for winter crop

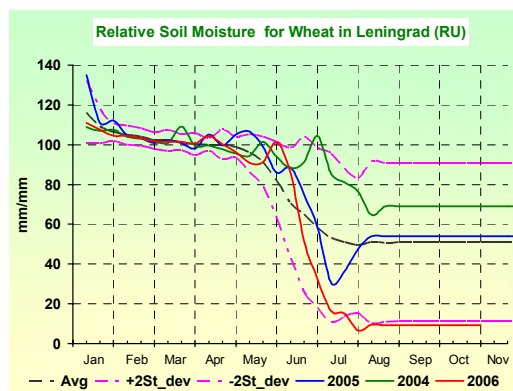
The winter period was less favourable for winter crop than in the previous year, especially in Volga and Urals regions. In some regions, unfavourable winter conditions affected near 30-50% of winter crops, and it was necessary to re-sow it.

Meteorological conditions during April-May were optimal for winter crops, and were favourable for spring crops sowing practically everywhere, and sowing campaign is likely to be finished without delay.

In June-July meteorological conditions for summer crops were favourable in all regions, except the Central Russia, middle Volga, and Urals regions where low amount of precipitation delayed crop development.

Dry weather with high air temperature in August in Northern Caucasus region is favourable for spring crops harvesting, but it creates problems for last stages of summer crops development. The yield of sunflower and especially maize is likely to be affected by such weather conditions. Additionally, the sowing of winter crops was slightly shifted due to low soil moisture content in this region. Oppositely, wet August weather in Central and North-Western regions led to delay in crops harvesting, and consequently, to decreasing of grain quality.

As a result, the yield of winter crops seems to be lower in 15-20% than in previous year (due to unfavourable winter conditions and dry spell at the end of the season) practically everywhere, except some regions of Northern Caucasus, where it seems to be close to the previous season. However, the yield of spring grain crops is likely to be higher or close to the previous year. The yield of potatoes, sunflower, and sugar beet is likely to be close to the previous year or slightly higher.



8. Pasture Analysis

The 2006 season for forage crops can be described as moderately positive, especially if compared to the 2005 season when a severe drought affected grassland and pastures over

most of the EU and especially on the Iberian Peninsula.

In early spring reduced biomass available due to lack of precipitation, was reported in The Netherlands, on the North Sea coast of Germany (Schleswig-Holstein) as well as in the Danube Valley. Areas of some concern for the condition of pastures and grasslands were also reported in Ireland, and on the coast of north-western UK. In Spain, the lack of significant precipitation during winter appeared to be onset of another bad year. However, late spring rains over most of the country were such to recover a satisfactory biomass production for cattle.

In north and western Europe, an increase in rainfall at the end of April and beginning of May contributed to a partial recovery in the condition of pastures but a further precipitation deficit during July 2006, combined to higher than average temperatures, affected the forage biomass available for grazing and cutting. The main areas of concern during summer were again the west coast of the UK, central and western France, northern Germany, the upper Danube Valley as well as eastern Poland and Baltic countries. The drought eased during August in north-central Europe while conditions remained dry over Ireland and most of the UK.

These late precipitations were not sufficient to supplement the overall shortage accumulated in the previous period and this led to the early use of dry forage reserves with a possible impact on the availability for the coming seasons. Concerning rotation forage and green maize, these followed the same trends reported over most arable land in the EU-25 countries. Dry and warm weather affected the second cut of green fodder in the western British Isles, central France and the North Sea coast of Germany and Holland. Similar conditions were reported for green maize production areas in the Danube Valley, southern France and the Padana Valley in Italy. In some areas of southern Europe, the availability of irrigation water faced restrictions, causing potential reductions to production levels.

An overall picture of the situation is provided by the vegetation index (NDVI) derived from the "VEGETATION" sensor mounted on the SPOT-5 satellite. The areas in orange and red represent the decrease in the NDVI and thus the areas where forage crops had the worst productivity levels.

The Netherlands and the North Sea coast of Germany: In this area the rainfall deficit was felt since the beginning of January and even though there was a certain recovery of rainfall during spring it wasn't sufficient to supplement the deficit in biomass production. The region experienced a further drought from June to August with a 60 % reduction of cumulated rainfall as compared to the long term average associated with heat waves. The situation eased from mid August but it strongly affected cattle farmers forcing them to use dry forage reserves to compensate for the lack of green biomass on pastures.

Southern Germany and Danube valley: Green maize production areas in central Europe suffered from rainfall deficits and high temperatures starting from July. Even though rain picked up significantly at the beginning of August, the season still ranks as one of the worst in the past 32 years.

North Ireland and Northern Ireland (UK): In Ireland and Northern Ireland (UK), the weather was characterized by low rainfall since January. Although there were regular precipitations across the winter, this was not sufficient for the requirement of the extensive grassland surfaces of the region. The west coast of Ireland was again affected by precipitation deficit from mid June until the end of August, combined to several heat waves. A steep drop in the vegetation index at the end of August, measured by the SPOT satellite Vegetation sensor highlights this situation in what, according to the climatic water balance, appears to be one of the worst seasons in the past years.

France: Rotation forage crops in western France were affected by a precipitation deficit and a number of heat waves from early July to the beginning of August. The effect on the crops is highlighted by the trend of satellite vegetation index in July. These conditions caused significant reductions in the second cut of forage. The green maize production areas of southern France (Midi-Pyrénées Dept.), as other regions of the country, suffered from a rainfall deficit and high temperatures. Cumulated rainfall was -30% to -50% below the long-term average in July and August and although maize production areas have irrigation facilities, limitation to water use affected the production levels.

B. New 2006/07 campaign 1 September to 10 November

1. Agro-meteorological overview

TEMPERATURES: very good conditions for a prompt germination over the whole continent: extended summer in September and October, more seasonal conditions in November (except Spain and Portugal).

Both in September and, even more in October over the whole continent, the temperatures persisted above the seasonal average. Particularly in the central EU and at higher latitudes (English Channel, Baltic Sea area, Scandinavia). On average, in these areas the maximum daily temperatures were 4-6°C above normal. In September, in central and western France, Benelux, Portugal, western Spain, south-eastern Germany, south-eastern UK the maximum temperatures remained 8-10°C above the seasonal average. On the contrary, in October although warmer conditions were generalized all over the continent, the highest differences occurred in eastern EU and in the Black Sea area. An exception was the Iberian Peninsula where at the end of October both maximum and minimum temperatures remained close to the threshold of 30°C (10-12°C above the average). In the second half of October and then in November colder air arrived from the north and some frost events occurred progressively from Russia toward western EU up to Spain.

RAIN: drier than seasonal conditions in central and eastern EU and Italy. Quite wet in Spain, Portugal, Turkey and Scandinavia. More normal in the other areas.

In general, the rain was irregularly distributed and as a whole in the period it was scarce in Benelux, north-western and southern Germany, Italy and east EU (except Poland). In these areas (except Italy), the driest periods occurred in September and November. Southern France, Italy and Slovenia received the last significant rain in the last part of September and then experienced a very dry period. The rain deficit for this period was estimable as more than 100 mm (-70/-90% as compared to LTA).

On the contrary abundant rain was received over the Iberian Peninsula, Poland, Scandinavia and Turkey. The rain was distributed both in October and November, favouring the water soil reservoirs. Therefore, in general the conditions were quite favourable during the sowing preparation but relatively dry in the majority of the continent except Spain, eastern France, UK and Ireland.

2. Winter crop sowing overview – autumn 2005

EU-25

Winter Wheat

Favourable conditions for sowings in most of the EU, except Portugal, central and northern Spain and Ireland

In general in the whole of Europe, early sowings were carried out under good conditions, except in Portugal, Bretagne, the Baltics and Greece, where abundant and persistent rain likely obstructed the machine mobility. Also during the canonical sowing calendar good conditions were experienced in the majority of EU members.

Similarly to the previous campaign, again in Portugal, north – central Spain (Galicia, Castilla y Leon, Asturias) Ireland and east France registered abundant rainy days (more than 100 mm) which have probably over wet the fields. In Portugal better conditions occurred for slightly delayed sowings. On the contrary in central Spain and Ireland anticipated sowings faced better conditions (also as thermal availability).

Moreover, as also mentioned in the first part of this bulletin, in general in September and October the thermal conditions were quite favourable in order to allow a good and rapid germination and emergence.

Winter Barley

As a whole good conditions all over Europe.

Favourable climatic conditions occurred during the canonical periods for winter barley sowings in the main part of Europe both in term of seed bed preparation and soil trafficability. Temperatures were favourable for a fast emergence and rain was relatively scarce. Only possible delays occurred in the eastern area of France (Alsace, Lorraine, Franche-Comte) and on the corresponding western

area of Germany (Rheinland-Pfalz, Baden-Wurttemberg, Saarland) due to excessive rain late September.

Winter Rapeseed

Generally dry sowing conditions

For most agricultural areas of EU25 the weather around sowing date (± 5 days) was relatively dry, except northern and eastern Poland (where it was very wet), the northern areas and eastern England where about half of the days were rainy (> 5 mm/day). Here, the farmers who managed to sow before these generally well forecasted rain events converted this situation into an advantage in terms of favourable emergence.

Germany and eastern France received favourable rain for emergence.

Black Sea Area

UKRAINE: Positive dry period for sowing of winter cereals, possible delay for rapeseed sowing

The sowing period of winter cereals (one week before and one week after the average sowing date) was relatively dry for most of Ukraine. In the central Ukraine it was possible a delay in sowing of winter rapeseed and the late sowing (+2 weeks) of this crop was hampered by rain in the northern area of the country. Excepting the slightly warmer and wetter area in eastern, in most of Ukraine the thermal and water resources of the last 30 days were below long term average but without jeopardizing the emergence of timely sown winter crops.

BULGARIA and ROMANIA: Dry period for sowing of winter cereals

Most of the agricultural areas of these countries benefited from a dry period for sowing of winter crops. The cumulated precipitations received during around the usual sowing date (\pm one week) were either too low to hamper this activity (case of Romania), either confined to small areas (case of the rain events during the sowing of winter wheat in southern Bulgaria). The relatively dry period continued after the sowing period creating the risk of delayed emergence in southern and eastern Romania and northern Bulgaria.

Eastern Countries

RUSSIA: normal conditions for winter crop sowing

The air temperature was close to optimal for winter crop sowing. Only in some regions of Northern Caucasus the air temperature in September was lower than normal in 2-5 degrees, however it was not extreme for winter crop sowing.

Amount of precipitation was low in Northern Caucasus and North-Western regions from the 2nd decade of September up to the end of October. Amount of days with significant rain was less than 3 in September as well as in October in these regions. As a result soil moisture content in some regions was lower than long-term average, which should lead to delay in sowing campaign (especially in Stavropol region). Amount of precipitation and soil moisture content in September 2006 was close to normal in other regions of Russia.

As a result, meteorological conditions were close to normal in all regions of Russia excepting North-western region and Northern Caucasus, where lack of precipitation should lead to delay in winter crop sowing.

Maghreb

The onset of the 2006-2007 season does not appear encouraging. Precipitation has been scarce over most of the Maghreb region, and especially in the central area along the Algerian coast.

Better conditions for planting and germination can be reported on the Atlantic coast of Morocco and on the north western corner of Tunisia, also along the coast line.