2008/09 Winter Grain Prospects in the Northern Hemisphere Outside the United States

Prepared by the Joint Agricultural Weather Facility

This article summarizes early prospects for Northern Hemisphere winter grains outside the United States based on an assessment of weather and crop conditions from the autumn of 2007 to the present.

Winter Grains Summary: Prospects vary greatly for winter grains (wheat, barley, and rye) in the main production areas of the Northern Hemisphere outside of the United States. In the countries comprising the European Union, the outlook for both grains and oilseeds is better than last year due to generally favorable moisture conditions and little, if any, winterkill. Similarly, crop prospects are favorable and better than last year in Russia and Ukraine due to the relatively beneficial weather during the fall planting season and a mild 2007/08 winter. In contrast, untimely dryness plagued winter grains in major growing areas of northwestern Africa and the Middle East including, for the second straight year, portions of Morocco. Overwintering conditions were generally favorable for irrigated winter wheat in major production areas of Asia, although rapeseed was subjected to potential freeze damage in a few locations in both India and China. In Canada, conditions currently favor a potentially large winter wheat crop in Ontario. Winterkill was likely a problem for the smaller Prairie winter grain crop. Winter rainfall was below normal in northeastern Mexico, although April showers brought some relief to reproductive to filling sorghum in Tamaulipas, the country's largest producer of rainfed winter sorghum.

European Union: The outlook for winter grains and oilseeds is better than last year in the European Union (EU-27), due in part to abundant winter-spring precipitation and a lack of winterkill. In contrast, last year's winter crops were hit by spring dryness, excessive harvest rainfall, and localized drought, which cut yields and reduced crop quality. On the Iberian Peninsula, winter (2007-08) drought gave way to timely spring rain, which stabilized declining winter grain yield prospects. More recently, heavy showers and thunderstorms during early May provided an additional boost to filling winter wheat in Spain. Across northern Italy, the impacts of below-normal precipitation from mid-December into early-April were mitigated by adequate irrigation reserves, with recent, locally heavy rain providing additional soil moisture for winter wheat development. In England, southeastern growing areas benefited from consistent rainfall, even though season totals were somewhat below normal. Farther south, yield gains are expected in France and Germany, where near-normal winter and spring precipitation has led to nearly ideal conditions for jointing to heading winter grains as well as reproductive to filling winter rapeseed. In Poland, despite a period of dry weather during December, a mild, wet fall and winter eased winter grains and oilseeds into the spring under mostly favorable conditions. In addition, the typically-cold northeastern quarter of Europe experienced little, if any, winterkill despite a mostly snow-free winter.

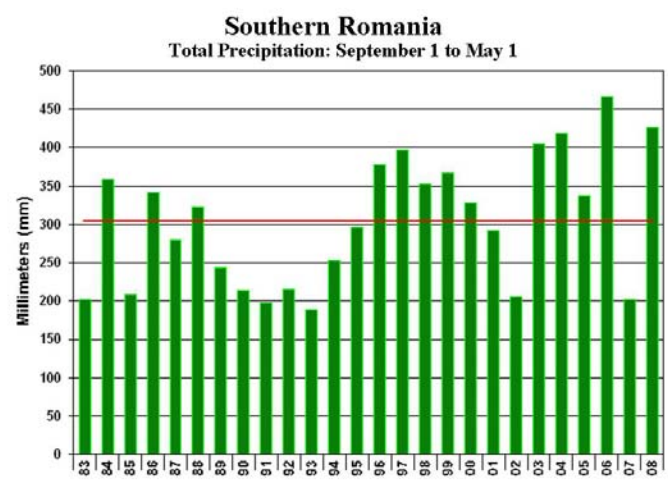

Figure 1: Comparison of 1983-2008 rainfall in southern Romania for the period September 1 to May 1.

Across southeastern Europe, winter grain prospects are vastly improved over last year. In Hungary, wetter-than-normal conditions since early September coupled with consistent April rainfall provided adequate topsoil moisture for winter wheat; last year, a developing drought in the spring severely cut into winter grain yields. Across the Balkans, winter wheat yields have likewise rebounded from last year's devastating early-summer heat wave and drought. This growing season, near- to above-normal autumn and winter rainfall (Figure 1) provided adequate to abundant moisture for winter grain planting and emergence. Wet weather has persisted into May, providing almost perfect growing conditions for reproductive to filling winter wheat.

Ukraine: Current prospects for winter grains are much better than last year's drought-reduced crop. The combination of near- to above-normal precipitation and above-normal temperatures during the fall planting season favored winter grain emergence and establishment in most areas. Winter grains entered dormancy in late November, 1 to 2 weeks later than usual. During the winter, unseasonably mild weather provided favorable overwintering conditions for winter grains, although well-below-normal precipitation limited moisture recharge. Crop losses due to winterkill were likely less than 5 percent. In March, unseasonably mild weather prompted winter grains to break dormancy about 2 to 3 weeks earlier than usual. Above-normal precipitation in March and April followed winter dryness, boosting soil moisture for winter grain development (Figure 2). In early May, widespread showers and cooler weather maintained favorable growing conditions for winter grains. Although a light freeze was observed in central Ukraine on May 8, temperatures did not fall low enough to threaten winter grains in the jointing stage.

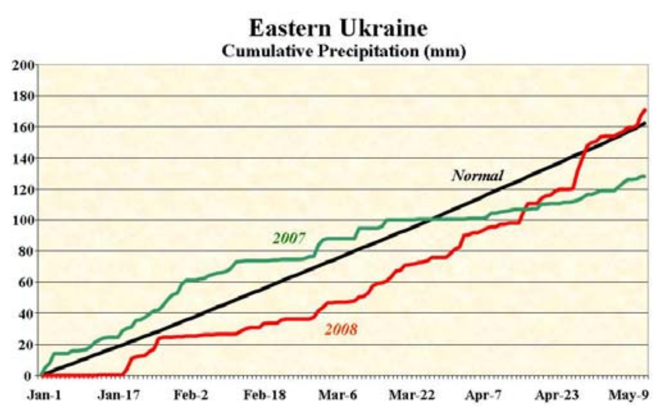

Figure 2: Rainfall comparison for the January 1 to May 14 period in eastern Ukraine, depicting more favorable spring moisture levels in 2008 versus 2007.

Russia: The current outlook for winter grains is favorable due to a combination of beneficial weather during the fall planting season and a mild winter that resulted in below-average winterkill. Last fall, timely showers in September boosted soil moisture for newly emerging winter grains in northern Russia and newly planted winter grains in southern Russia. Unseasonably mild weather in September and October favored winter grain emergence and establishment in most areas. The unseasonably mild weather in northern Russia fostered later-than-usual winter grain growth and crops entered dormancy 1 to 2 weeks later than usual. Unseasonably mild weather and adequate snow cover provided favorable overwintering conditions for winter grains during most of the winter. However, there was a period of very cold weather from January 4-12 that stressed dormant winter grains. Snow cover was patchy or non-existent in the southernmost portion of the Central District and parts of the Southern District, leaving winter grains vulnerable to extreme cold. Much warmer weather overspread the region in mid-January and persisted during the remainder of the winter, improving overwintering conditions for crops. Despite the cold weather in early January, crop losses due to winterkill were likely below average. In March, unusually mild weather caused rapid snow melt and winter grains broke dormancy 2 to 3 weeks earlier than usual in southern Russia. Above-normal precipitation fell in the wake of winter dryness, boosting soil moisture. In April, periodic showers accompanied unseasonably mild weather, favoring winter grains that advanced into the jointing stage in the south and resumed spring growth 1 to 2 weeks earlier than usual across the north. Unseasonably cold weather overspread the region in early May, slowing crop development.

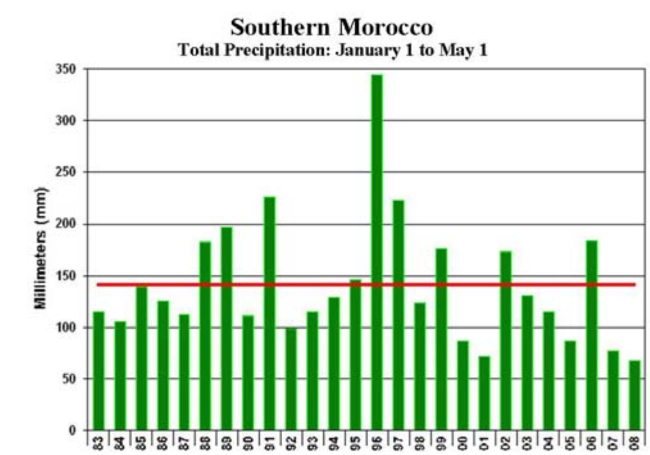

Figure 3: Comparison of 1983-2008 rainfall in southern Morocco for the period January 1 to May 1.

Northwestern Africa: Chronic dryness reduced winter grain prospects in western growing areas, while initially favorable crop conditions gradually deteriorated elsewhere. In Morocco, early-autumn showers promoted winter grain planting and emergence. However, a second consecutive year of drought in western and southern winter crop districts depleted soil moisture reserves and adversely impacted winter wheat and barley as crops entered reproduction. By mid-March, southern Morocco's filling wheat and barley crops had been exposed to similar conditions as last season's record-setting drought (Figure 3). In northern- and easternmost growing areas, periodic showers during the winter provided adequate topsoil moisture for winter grain development. Consequently, the overall outlook for Morocco's winter grains has improved over last year, but remains below the long-term average.

Farther east, favorable autumn precipitation gave way to drier-than-normal weather in the winter. The impacts of the increasing dryness were most pronounced in western Algeria and southern Tunisia, with deteriorating crop prospects versus last year. However, the dry weather pattern also impacted the remainder of northwestern Africa's filling winter grains by late April, trimming crop expectations nearly region-wide.

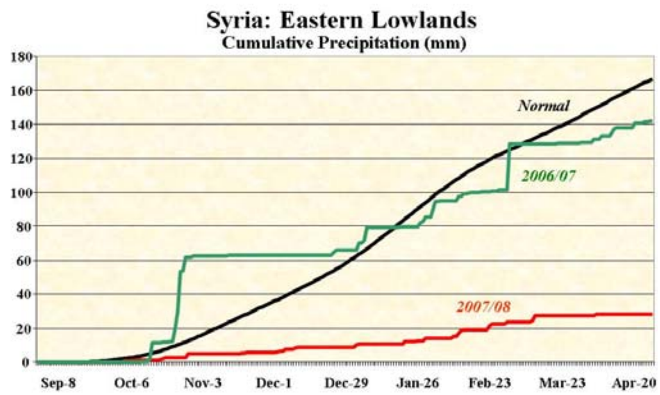

Figure 4: Comparison of winter precipitation for the past 2 seasons in Syria's eastern lowlands, depicting the drought conditions that plagued much of the region during the growing season.

Middle East: Below-normal precipitation lowered prospects for winter grains across Turkey, while expanding drought slashed crop yields across the eastern Mediterranean. In Turkey, locally heavy autumn precipitation slowed fieldwork but provided ample topsoil moisture for crop establishment. However, below-normal winter precipitation reduced irrigation supplies and topsoil moisture for overwintering crops. By the spring, central- and southeastern portions of Turkey's winter wheat belt remained exceptionally dry, trimming prospects for heading to reproductive winter wheat. Meanwhile, wetter-than-normal conditions enveloped the western third of the country, helping to offset somewhat the impacts of the dryness. Drought severely impacted winter grains across the entire eastern Mediterranean, with widespread crop losses noted in northern portions of Syria (Figure 4) and Iraq. Dryness also expanded into western Iran as the winter progressed, lowering expectations for winter wheat and barley.

India: Despite below-normal winter precipitation, prospects for wheat are on par or slightly better than last year due to near-normal temperatures and adequate irrigation reserves. An end-of-season burst to the monsoon over northern India's primary wheat areas provided additional recharge to reservoirs and ground water tables, enabling farmers to maintain favorable soil moisture levels despite the drier-than-normal fall and winter. Temperatures were also conducive for crop development, despite freezes in late April. However, the freezes likely impacted flowering rapeseed, which was also subjected to locally heavy showers and severe thunderstorms as the crop matured in early April. Consequently, favorable prospects for wheat are in contrast to lower yield expectations for rapeseed across India.

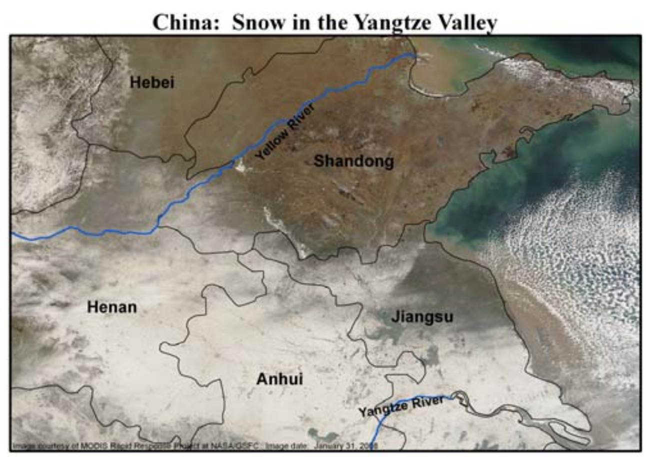

Figure 5: Winter storms ravage China (see WWCB Volume 95, Issue 6, for additional details).

China: Mostly dry weather through the autumn benefited winter wheat planting on the North China Plain. Similarly, planting weather was favorable for winter rapeseed in the Yangtze Valley. Soil moisture throughout the autumn and winter was adequate for winter wheat and rapeseed due to seasonal irrigation supplemented by occasional showers. Near- to above-normal temperatures early in the growing season aided emergence and establishment of winter crops prior to dormancy. A series of severe winter storms, however, moved through the Yangtze Valley during the latter half of January, bringing unusually cold weather, snow, and ice (Figure 5). Winter wheat was well hardened and faired well against the cold. However, localized damage to less cold tolerant rapeseed was reported (mostly due to ice). Seasonable rainfall and warm weather in March and April eased winter crops out of dormancy and aided development. Snowfall and sporadic showers maintained sufficient soil moisture in between seasonal applications of irrigation water. Harvesting for both winter wheat and rapeseed typically occurs in mid- to late-May.

Canada: In late August and early September, showers helped to replenish topsoil moisture levels for germination and establishment of winter wheat in the main production areas of southern Ontario. The timely moisture arrived after several months of summer drought. According to Ontario's Ministry of Agriculture, Food, and Rural Affairs (OMAFRA), a return to drier conditions in late September and October engendered excellent planting conditions and record acreage was anticipated. From November to March, above-normal winter precipitation virtually eliminated drought in that part of the country (Figure 6). In addition, snowcover was present during a February outbreak of bitter cold (lows near -20 degrees C), offering protection from potential winterkill. Conditions were overall favorable for winter wheat entering vegetative phases of development in April.

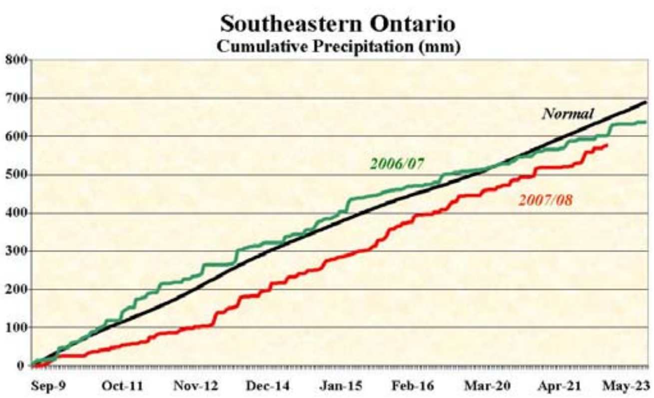

Figure 6: Comparison of winter precipitation for the past 2 seasons in southeastern Ontario, depicting timely moisture for winter grain development.

Winter precipitation was near to below normal on the Prairies, and many agricultural districts entered the spring planting season in various stages of drought. In January and February, outbreaks of extreme cold (lows falling below -30 degrees C) were at times accompanied by only a shallow snowcover (less than 8 cm), raising concern for an increase in winterkill in the traditionally hardy Prairie winter wheat crop. In April and early May, cool, often snowy weather slowed winter wheat development and disrupted early spring planting activities.

Mexico: In the summer and autumn of 2007, wetter-than-normal conditions helped to recharge irrigation reserves across the main winter grain areas of northern and central Mexico. Nearly all of Mexico's winter wheat, predominantly grown in the northwest and on the southern plateau, is irrigated. Winter precipitation was below that of last year throughout much of Mexico, resulting in higher levels of draw down from the major reservoirs. In northeastern Mexico (notably Tamaulipas), the dryness limited moisture for early development of winter sorghum (Figure 7). Late-April rainfall brought some relief to crops in reproductive to filling stages of development, particularly in northern Tamaulipas, but additional rain was needed to recover from the winter drought. According to the Agricultural Secretariat of Mexico (SAGARPA), winter sorghum accounts for nearly 40 percent of total national production, but only about 20 percent of the crop is irrigated. On average, Tamaulipas produces approximately 80 percent of Mexico's winter sorghum.

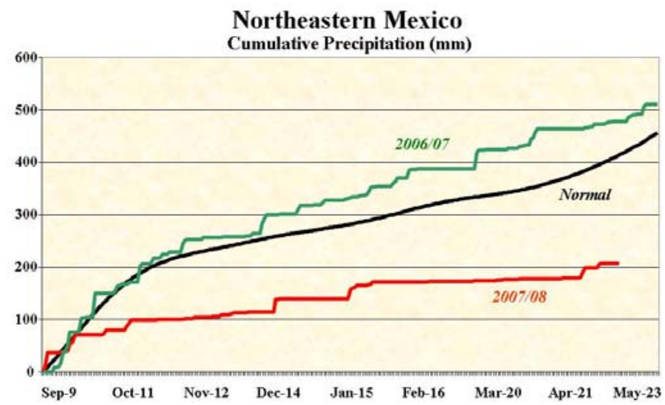

Figure 7: Winter rainfall for northeastern Mexico, showing drier conditions in 2007/08 compared with the previous year.