International Weather and Crop Summary NOAA/USDA Joint Agricultural Weather Facility February 10-16, 2013 International (202) 720-9807

HIGHLIGHTS

EUROPE: Colder, snowier weather across northern and central Europe was favorable for dormant winter crops, while showers continued in the south and west.

FSU-WESTERN: Unseasonably warm, dry weather kept most of the region devoid of a protective snowpack and reduced crop cold hardiness, while rain and snow overspread western growing areas.

MIDDLE EAST: Warmer-than-normal conditions continued, benefiting winter grains but keeping the region devoid of a protective snow cover.

NORTHWEST AFRICA: Rain expanded across the region, maintaining favorable prospects for vegetative winter grains.

SOUTHEAST ASIA: Heavy showers slowed rice maturation in western Java, Indonesia, but were still favorable for filling rice in the

east.

AUSTRALIA: Scattered showers and seasonably warm weather favored summer crop development.

SOUTH AFRICA: Warmth and sunshine promoted development of reproductive to filling corn.

ARGENTINA: Showers brought some relief from dryness to lateplanted corn and soybeans.

BRAZIL: Beneficial rain continued throughout southern and central Brazil but dryness expanded across soybean and cotton areas of the northeastern interior.

EUROPE: Colder, unsettled weather prevailed across most of the continent, favoring dormant (north) to vegetative (south) winter crops. A slow-moving cold front brought an end to the recent spell of warmer-than-normal weather, with temperatures during the past week averaging up to 3°C below normal from England into central Europe. The colder conditions were accompanied by a fresh snowfall (2-10 cm) from Germany and Poland southward into the Alps and northern Italy, providing dormant winter crops some insulation from potential late-season bitter cold. As the front pushed southward, an area of low pressure generated moderate to heavy rain (10-50 mm) and high-elevation snow from the United Kingdom and France into the central and eastern Mediterranean region, boosting moisture reserves for spring growth but hampering citrus harvesting and other seasonal fieldwork.

During January, above-normal precipitation and near- to belownormal temperatures across Europe maintained favorable overwintering conditions for winter grains and oilseeds. In northern Europe's winter crop areas, precipitation averaged 80 to 150 percent of normal, although areas of dryness (locally less than 50 percent of normal) were noted in northern France and western Germany. Farther south, rainfall totaled 40 to locally more than 100 mm in Spain and Italy, favoring vegetative winter wheat and barley. In the Balkans, rainy, mild weather favored dormant winter crops but kept the region devoid of a protective snow cover.

FSU-WESTERN: Unseasonably warm weather prevailed, with western wetness contrasting with dry conditions in central and eastern portions of the region. A broad area of high pressure centered over western Kazakhstan and central Russia maintained a warm southerly wind in key winter wheat areas of Russia and eastern Ukraine. Consequently, temperatures averaged 6 to 9°C above normal, with daytime highs eclipsing 10°C from Crimea, Ukraine, into the southern third of Russia's Southern District. With weekly average temperatures at or above 5°C in these southern crop regions for a second consecutive week, some greening of winter wheat was likely; this early emergence from dormancy has put the crop at risk of potential freeze damage should any late incursions of bitter cold occur. In western portions of the region, a slow-moving cold front generated southern rain and northern snow in Ukraine and Belarus, maintaining adequate to abundant moisture reserves for spring growth.

In January, near- to above-normal precipitation maintained abundant soil moisture reserves for dormant winter grains and oilseeds. However, warmer-than-normal weather (2-4°C above normal, with highs topping 15°C by month's end) melted much of the protective snow cover over key southern winter wheat areas. In contrast, snow cover remained adequate for crop insulation in northern crop areas, where temperatures averaged near to below normal. **FSU-EASTERN:** In January, colder-than-normal weather in northern portions of the region contrasted with above-normal temperatures in the south. Temperatures for the month averaged up to 3°C below normal in southern Russia and northern Kazakhstan, although the region remained encased in a deep snowpack and agricultural activity was minimal (if any). In the southern cotton areas, rain and mountain snow provided a welcome boost to irrigation reserves for cotton, which is planted in April and May. MIDDLE EAST: Warm weather prevailed across the region, with additional rain in the west contrasting with drier conditions in central and eastern crop areas. A warm, southerly flow maintained unseasonable warmth (3-9°C above normal) across the region, keeping major winter grain areas devoid of a protective snow cover. In addition, daytime highs of 12 to 22°C further reduced crop cold hardiness and likely caused some early greening. Meanwhile, a Mediterranean storm approached from the west, generating moderate to heavy rain (10-100 mm) from western Turkey into Syria, Lebanon, and Israel. The rain boosted soil moisture for winter wheat and barley and improved irrigation reserves for warm-season crops. Across eastern Syria, Iraq, and Iran, precipitation was generally light (less than 10 mm) and spotty. While conditions remained overall favorable for winter wheat and barley, crops remained exposed to any sudden temperature extremes.

Heavy rain and mountain snow during January insulated dormant winter crops in the north and boosted soil moisture for vegetative winter grains in southern growing areas. Precipitation totaled 50 to 140 mm in key winter grain areas from southeastern Turkey into northern Iraq and western Iran, with drier-than-normal conditions generally confined to Turkey's Anatolia Plateau. By month's end, however, sharply warmer weather (15°C or greater) melted most of the region's snowpack. NORTHWEST AFRICA: Showers continued in the east and returned to western crop districts. An early week cold front generated widespread rain (10-65 mm) across the region's primary winter grain areas, boosting soil moisture for vegetative winter wheat and barley. In the front's wake, cold weather led to some light snow away from the coast, while most winter crop districts remained safely above freezing.

After a dry start, beneficial rain returned to the region during the latter half of February, maintaining favorable prospects for vegetative winter wheat and barley. Rain was heaviest (greater 100 mm) in northern Morocco and from north-central Algeria into northwestern Tunisia. Only southern-most portions of western Morocco were dry, a relatively small winter grain production area. SOUTH ASIA: Above-normal rainfall in January (predominantly in the form of mid-month showers) across northern India provided a favorable boost to moisture supplies for vegetative wheat as well as reproductive rapeseed in portions of western India. Rainfall was below normal, however, in southern and southeastern India, raising concerns about sufficient moisture for rabi rice and groundnuts. In contrast, above-normal monthly rainfall maintained near record wetness in Sri Lanka as wet-season rice was beginning to mature. Meanwhile, temperatures were below normal in northern India, aiding wheat development, while nearnormal temperatures prevailed throughout the rest of the region.

EAST ASIA: In China, rainfall was generally near normal in January across wheat and rapeseed areas. Moisture conditions remained favorable for overwintering crops, with periodic light rain and snow maintaining adequate moisture reserves. In contrast, below-normal rainfall in southern China reduced moisture supplies for sugarcane and winter vegetables. Meanwhile, temperatures were near normal across much of China, with occasional cold outbreaks raising concerns about crop damage, mainly in far southern areas. SOUTHEAST ASIA: Heavy monsoon showers overspread the traditionally wet southern half of the region. In Java, Indonesia, 50 to 150 mm of rain maintained saturated conditions in the west, where the earliest planted rice was likely maturing. Growers would welcome drier conditions, as weekly rainfall totals typically average less than 50 mm at this time of year; further heavy rain could cause quality issues such as cracked grains. In central and eastern portions of Java where rice is planted later, the rainfall (50-150 mm) was still beneficial to the filling crop. Showers were also unseasonably heavy elsewhere in Indonesia and Malaysia where 75 to 225 mm slowed oil palm harvesting and could lower yield potential. In contrast, showers were more seasonable in the Philippines as rainfall amounts varied between 10 and 110 mm, maintaining favorable soil moisture for winter rice and corn while causing few harvest delays.

In January, monsoon rains across Java, Indonesia, maintained abundant to excessive moisture supplies for reproductive rice. Some flooding occurred, however, in western portions of Java. Seasonal rainfall (since November 1) has been well above normal in Java, making the period the second wettest in the last 30 years. In the Philippines, seasonal rainfall continued to keep winter rice and corn well watered, with localized flooding occurring in eastern parts of Mindanao and the Visayan Islands. **AUSTRALIA:** In northern New South Wales, scattered showers (5-25 mm or more) maintained local moisture supplies for immature cotton and sorghum. Showers (5-35 mm) were more isolated in major summer crop areas of southern Queensland. The mostly dry weather aided drydown of early maturing summer crops but may have increased irrigation requirements for crops planted later in the growing season. Temperatures were generally seasonable in eastern Australia, with maximum temperatures in the upper 20s to middle 30s degrees C in most areas.

In early to mid-January, periods of excessive heat stressed summer crops in eastern Australia. Later in the month, seasonal warmth and adequate moisture supplies favored summer crop development in Queensland, but drier-than-normal weather lingered in northern New South Wales, further disrupting crop development. At the end of January, the remnants of Tropical Cyclone Oswald soaked the east coast, causing local freshwater flooding and some damage to sugarcane. Farther inland, Oswald provided a welcome boost in topsoil moisture for cotton and sorghum. SOUTH AFRICA: Summer warmth promoted growth of rain-fed summer crops. Eastern sections of the corn belt registered light rain (less than 10 mm) and sunny days, aiding development of early planted crops in the filling stages. Meanwhile, timely, locally heavy showers (10-25 mm) boosted moisture for reproductive crops in western sections of the corn belt. Weekly temperatures averaged 1 to 2°C above normal, with daytime highs briefly reaching the lower 30s (degrees C) in the east and the middle 30s in the west. Elsewhere, locally heavy rain (25-50 mm) maintained generally favorable levels of moisture for rain-fed sugarcane in southern sections of KwaZulu-Natal. Unseasonably heavy rain (5-25 mm) lingered over agricultural districts of Western and Eastern Cape, boosting moisture reserves for livestock and immature summer crops but causing minor disruptions in fieldwork.

During January, warm, showery weather prevailed throughout the main eastern production areas. However, rainfall was below normal across northern and western sections of the corn belt (North West to west-central Mpumalanga), reducing moisture for vegetative rain-fed summer crops. In addition, weekly temperatures averaged up to 2°C above normal - with daytime highs occasionally reaching the upper 30s degrees C - exacerbating the effects of the dryness on soil moisture reserves and developing crops. Temperatures were more seasonable in eastern sections of the corn belt, where rainfall was closer to normal; consequently, conditions in the east were generally favorable for crops advancing through reproduction. Near-normal rainfall and seasonable warmth also benefited sugarcane in the main production areas of Mpumalanga and KwaZulu-Natal. Showers were less frequent in the Cape Provinces, where summer warmth fostered rapid development of irrigated crops. **ARGENTINA:** Showers brought some relief from long-term dryness to key farming areas of central Argentina. Rainfall totaled 10 to 25 mm across Cordoba, Santa Fe, and Entre Rios, and in northern production areas of La Pampa and Buenos Aires; little to no rain fell in southwestern Buenos Aires. While providing beneficial moisture for grains and oilseeds in varying stages of development, the rain was not of sufficient intensity or coverage to fully alleviate drought impacts. Additionally, weekly temperatures averaging 2 to 5°C above normal (daytime highs reaching the middle 30s degrees C) maintained high evaporative losses. Heavy rain (25-100 mm) overspread the north, boosting moisture for immature, late-planted summer grains, oilseeds, and cotton. As in central Argentina, weekly temperatures averaged 2 to 5°C above normal, though daytime highs reached 40°C in traditionally warmer western locations (Santiago del Estero to Formosa).

During January, dry, occasionally warm weather reduced moisture for summer grains and oilseeds following months of excessively wet conditions. Rainfall totaled less than 50 mm (below 50 percent of normal) in high-yield farming areas from southern Cordoba and northern La Pampa eastward through the lower Parana River Valley (southern Santa Fe, Entre Rios, and northern Buenos Aires). While initially beneficial, the dryness eventually depleted moisture reserves for corn and soybeans, particularly later-planted crops, that did not have well established rooting systems. Monthly average temperature were generally within 1°C of normal, although daytime highs occasionally reached the middle 30s (degrees C), maintaining high evapotranspiration rates. Farther north, near- to above-normal rainfall provided timely moisture for summer grains, oilseeds, and cotton, though high temperatures (monthly temperatures 1-2°C above normal, with daytime highs often reaching 40°C) sustained high moisture demands of crops and livestock in western production areas (notably Santiago del Estero, Chaco, and Formosa). **BRAZIL:** Beneficial rain continued throughout major soybean areas of southern and central Brazil, but unseasonable dryness increased in outlying production areas of the northeastern interior. Rainfall totaled 25 to 100 mm from Rio Grande do Sul to Sao Paulo, and in most farming areas of Mato Grosso. In the south, the rain was overall beneficial for summer crops, including soybeans, corn, and sugarcane, as well as emerging second-crop (safrinha) corn, but the intensity of the rain may have slowed harvesting of early maturing soybeans. In contrast, dry weather dominated much of east-central Brazil, including Bahia, most of Minas Gerais, and nearby locations in the Center-West Region and the northeastern interior. The dryness in the Center-West (Goias and northern Mato Grosso do Sul) aided soybean harvesting and subsequent planting of safrinha corn. Farther east (western Bahia and nearby locations in Tocantins, Piaui, and Maranhao), however, the dryness reduced moisture for soybeans and cotton. Weekly temperatures averaged several degrees C above normal throughout Brazil's agricultural areas, with the highest anomalies (3-4°C above normal, with daytime highs in the middle and upper 30s) recorded in some of the driest locations, exacerbating moisture losses through evapotranspiration.

In January, near- to above-normal rainfall covered nearly all major agricultural areas. In the Center-West Region (Mato Grosso, Goias, and Mato Grosso do Sul), the rain maintained mostly favorable conditions for immature soybeans and newly planted second-crop (safrinha) corn but reportedly slowed fieldwork. Meanwhile, the rain in the northeast marked an improvement of conditions following a December dry spell, though unseasonably drier conditions continued near the northeastern coast. In southern Brazil, most of the rain came in early January, with a developing drying trend reducing moisture for immature corn and soybeans. Monthly average temperatures were near to slightly above normal in central and northeastern Brazil (daytime highs often reaching the middle 30s degrees C), fostering rapid growth of soybeans, corn, cotton, and other crops. Cooler conditions relative to normal were noted in the south, although daytime highs reached the middle 30s toward month's end at the height of the drying trend. **MEXICO:** In January, seasonably drier conditions prevailed across much of region, although many locations recorded rainfall in excess of the normal monthly accumulations. Across the north, scattered showers boosted moisture for winter grains, including rain-fed winter sorghum in the main production areas of Temperatures averaged near to above normal in Tamaulipas. northeastern Mexico and slightly below in the northwest, owing to an unusual outbreak of cold weather that reportedly brought frost to Sinaloa. However, freezing temperatures were not widespread, or of a sufficient level to cause significant damage to corn or other winter crops. Elsewhere, scattered light showers boosted moisture for winter wheat on the southern plateau, although amounts were unseasonably light (2-25 mm). Seasonably heavier amounts were recorded in the southeast, including the main coffee growing areas of Chiapas. According to the government of Mexico, total national reservoir capacity was at 44.4 percent as of January 30, compared with 51.0 percent last year and 78.3 percent in 2011. In the northwest (Sinaloa and Sonora), total reservoir capacity was at 36.0, ahead of last year (34.3 percent) but still well behind 2010 (67.1 percent).

CANADIAN PRAIRIES: January temperatures averaged 2 to 3°C above normal across most of the Prairies, reversing a 3-month trend of cooler-than-normal weather. However, temperatures were sufficiently low enough to keep winter grains and pastures dormant, and most agricultural districts recorded several instances of nighttime temperatures below -25°C. In most areas, however, snow cover was adequate to protect overwintering crops. Monthly precipitation totaled more than 10 mm in Manitoba, northern Saskatchewan, and much of Alberta. Moderate to deep snow cover (greater than 20 cm) existed for most of January over much of Manitoba, northeastern Saskatchewan, parts of southern Alberta, and Alberta's Peace River Valley.

EASTER CANADA: A warm, wet weather pattern prevailed for much of January. The month began with a moderate to deep snow cover across the region, but a warming trend accompanied by locally heavy rain melted most snow by mid-month, leaving overwintering wheat and pastures vulnerable to damage from bitter cold. Nighttime lows fell well below -20°C several times during the latter half of January, although light snow (below 10 cm) fell in advance of the cold, offering some protection. At month's end, however, unseasonable warmth and showers returned, further increasing moisture reserves but leaving crops unprotected again.