Weather summary for 2013

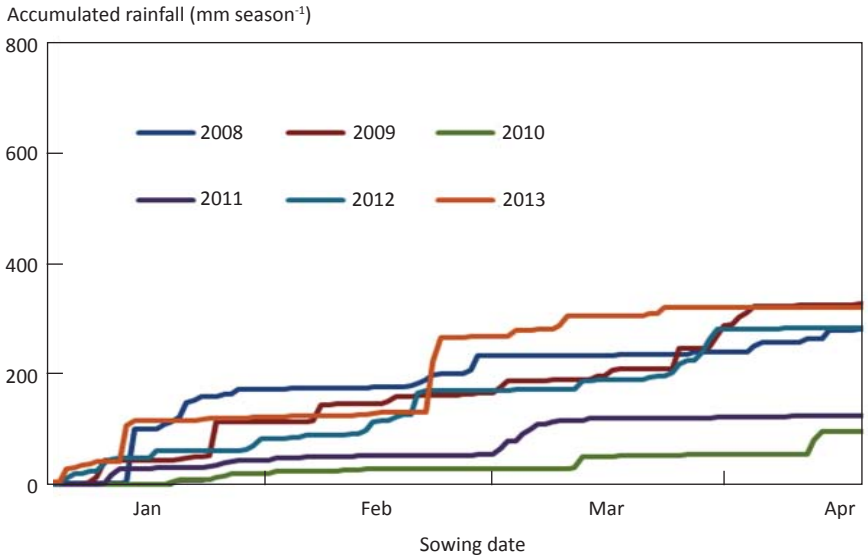
Pattern of rainfall accumulation from 1 January to 30 April ranged from 120 to 600 mm in the last 6 years. Total rainfall accumulated during the dry season of 2013 is 333 mm. The years 2012 and 2008 had similar total rain accumulation trends, although rain accumulation in 2012 had a slower start. The 2013 dry season had more accumulated rain from mid-February until mid-April compared with earlier years. The La Niña episode in 2009 continued to accumulate a total of 600 mm of rainfall by 30 April. The relatively dry seasons in 2010 and 2011 accumulated less than 120 mm of rainfall. With 600 mm of rainfall, it may be possible to grow rainfed rice during a dry cropping season with La Niña episodes.

Annual rainfall for 2013 was 2,589 mm for the IRRI dryland (upland) site and 2,365 mm for the wetland (lowland) site. These values were 510 mm higher than the long-term average rainfall for the dryland site and 343 mm higher in the wetland site. Los Baños experienced above-normal rainfall in March, turning the dry season into wet season. The wettest day at IRRI occurred on 18 August, with rainfall of more than 159 mm. The longest recorded continuous wet spell was 7 days at both the dryland and wetland sites (18–24 September). The longest continuous dry spell was 39 days at both the dryland and wetland sites (13 January–20 February).

The mean monthly solar radiation reached a peak in April with more than 20 MJ m^{-2} d^{-1} for dryland and more than 19 MJ m^{-2} d^{-1} for wetland. Then, it gradually declined in September (12 MJ m^{-2} d^{-1} in dryland) and Dec (12 MJ m^{-2} d^{-1} in wetland). The highest recorded daily accumulated solar radiation occurred on 14 March (31.5 MJ m^{-2} d^{-1}) at the dryland site and 22 May (24 MJ m^{-2} d^{-1}) at the wetland site.

The highest mean monthly duration of bright sunshine was 9.9 hr d^{-1} in April, the lowest mean was 3.3 hr d^{-1} in September. The longest record of sunshine in Los Baños was on 24 April with 11.8 hr of bright sunshine.

Maximum temperature reached its highest monthly mean value in April, 34.4 °C at the dryland site and 34.2 °C at the wetland site. The



Comparison of daily rainfall accumulation during the crop-growing periods of 2008 to 2013, Los Baños, dry season.

lowest mean value was in January, 23 °C for both dryland and wetland sites. In the dryland site, the recorded averages of maximum temperature were lower than long-term averages during the dry season. The hottest day in Los Baños was on 26 May 1993 with 36.6°C of recorded maximum temperature.

The distribution of minimum temperatures was more stable than the distribution of the maximum temperatures. Minimum air temperatures were generally similar than the long-term monthly averages throughout the year. The coldest day of 2013 in Los Baños was on 24 January with 19.9 °C at the dryland site.

The mean early-morning relative humidity ranged within 78–91%. Midday vapor pressure deficit was consistent with the long-term trend at the wetland site, and stayed minimal at the dryland site.

Daily mean wind speed, measured at a 2-m height was 1.9 m s^{-1} for the dryland site and 1.7 m s^{-1} for the wetland site. Wind speed was generally low (<2.0 m s^{-1}) except during tropical disturbances. The maximum 24-hour average wind speed for 2013 was 4.9 m s^{-1} in September at the dryland site and 4.4 m s^{-1} at the wetland site in November.

Because of a slightly higher air temperature, a lower amount of rainfall, and a higher vapor pressure deficit at midday, the free water evaporation at the upland site was slightly higher than the wetland site. Open-pan evaporation total were 1,718 mm (dryland) and 1,636 mm (wetland). These values were 88 mm higher than the long-term evaporation total at the dryland site and 22 mm higher at the wetland site.

Twenty-five weather disturbances developed in the Philippine area of responsibility. Only 10 of them crossed the country. However, many of the disturbances that did not make landfall enhanced the southwest monsoon and produced heavy rains in Luzon. One destructive typhoon (local nameYolanda) hit the Visayas area unexpectedly during November.

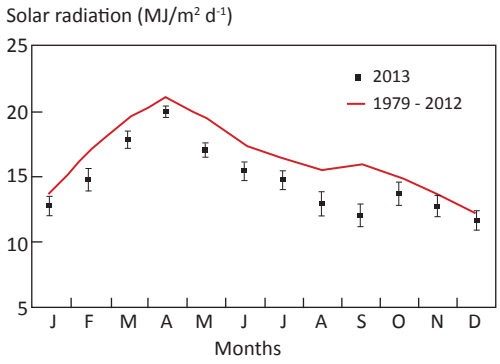


Fig. 1. Wetland solar radiation.

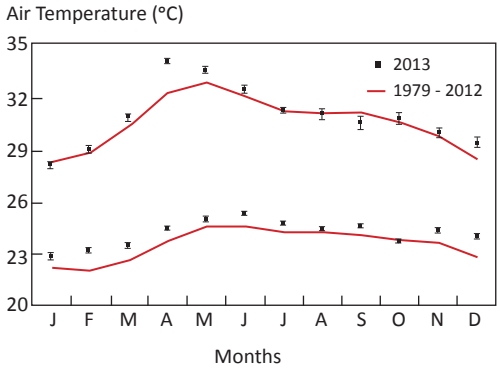


Fig. 2. Wetland annual and long-term air temperature.

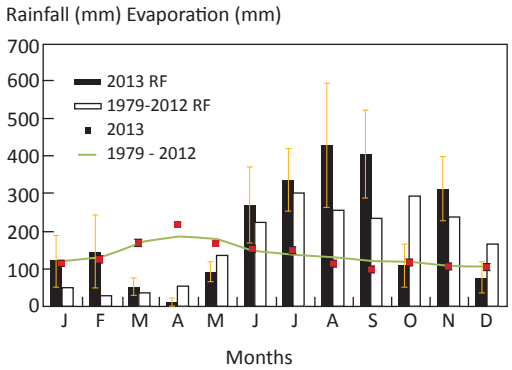


Fig. 3. Wetland rainfall and evaporation.

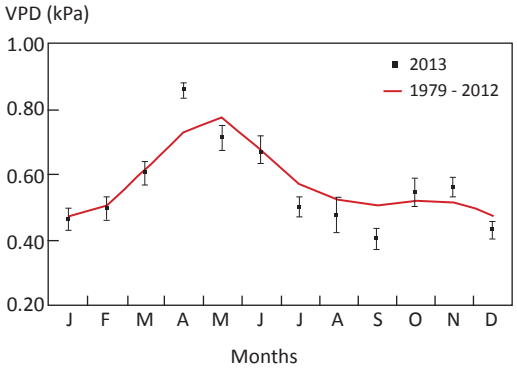


Fig. 4. Wetland vapor pressure deficit.