

Figure S1: Graphic representation of field layout using sub-surface drip irrigation system to evaluate 15 rice cultivars under four irrigation treatments. Row-to-row distance of the planted rice was 40.6 cm and the drip tape-to-drip tape distance was at 81.2 cm, so the rice row-to-drip tape distance was 20.3 cm. The blue lines indicate the position of drip tape. The green lines show the position of the planted rice genotypes. The red dots indicate the position of TDT sensors (for further details see Materials and Methods).

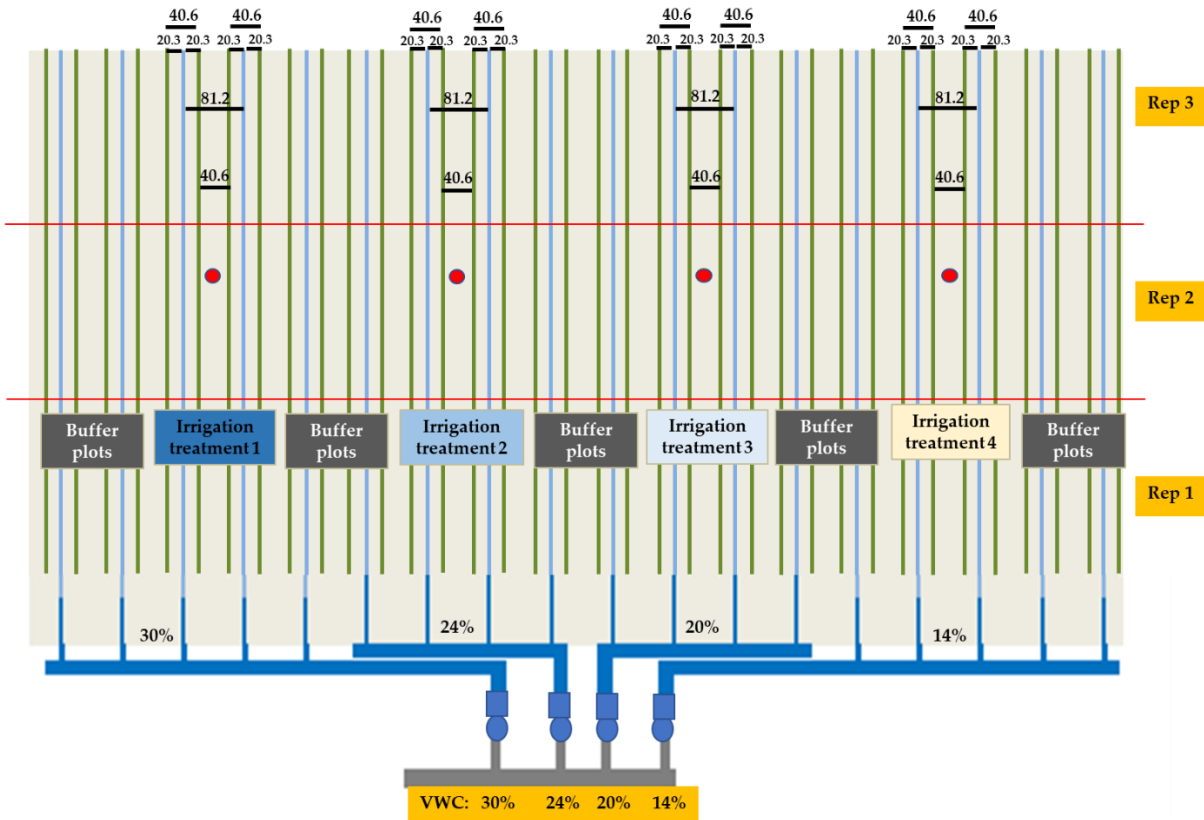


Figure S2. Overlay plot showing rainfall (mm) values (in red) using left Y axis, growing degree days (GDD, °C day⁻¹) values (in blue) using right Y axis, from planting until harvest during 2014 (a), 2015 (b), and 2016 (c) at rice research station, Stuttgart, Arkansas.

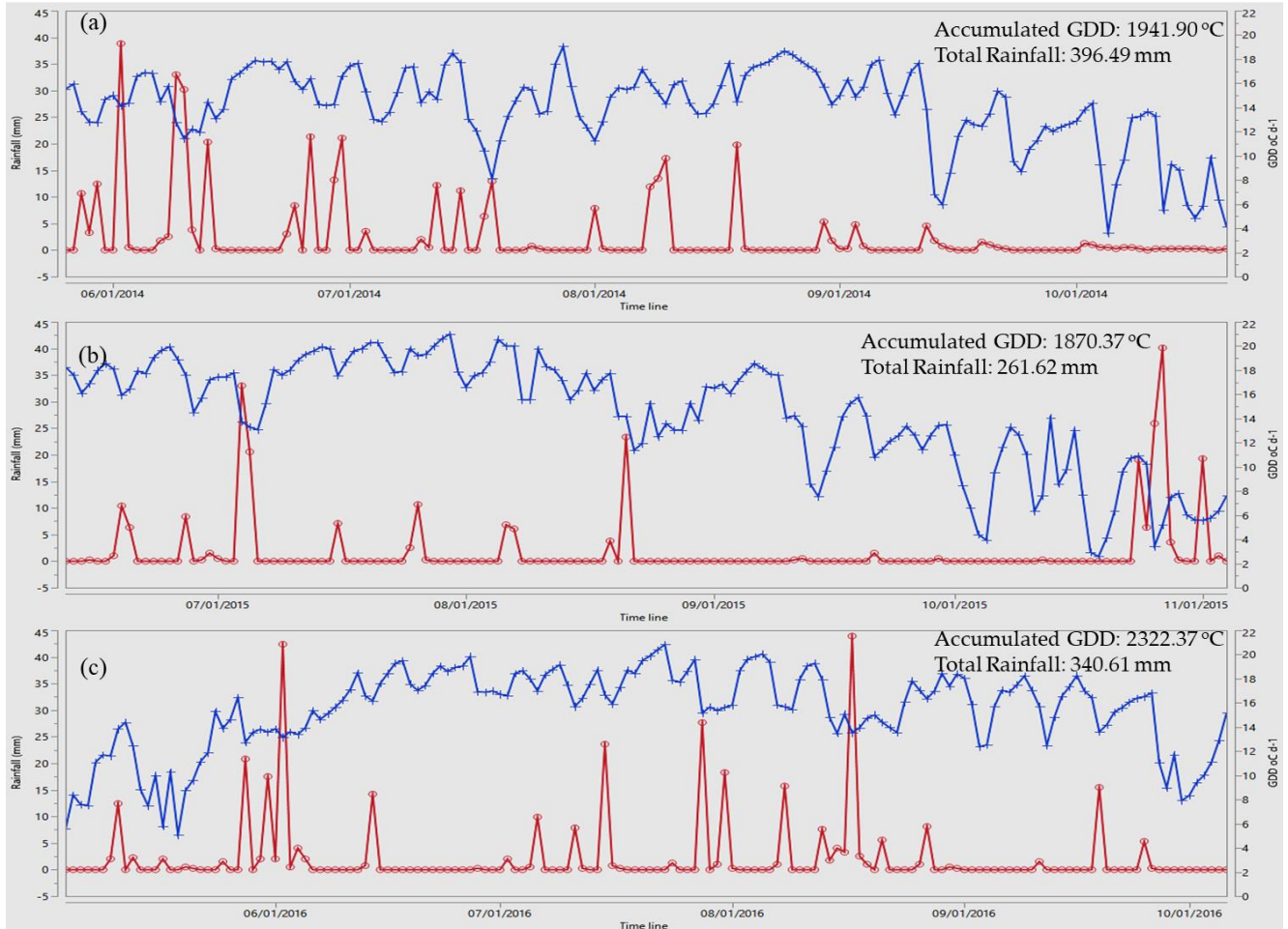


Figure S3. Plot of canopy temperatures and effective grain production in irrigation treatment-4 across the whole study. The X axis shows effective grain production (EGP) as the ratio of GY (g plant⁻¹):average seasonal volumetric water content (% VWC). The Y axis shows canopy temperature (°C). The circle identifies plots that had highest EGP. None of which had relatively low canopy temperatures.

