

Growth and Productivity of Maize Cultivars as Affected by Different Planting Dates Under Los Baños Condition

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The study evaluated four maize (*Zea mays*) cultivars (Supersweet, IES Glutinous-4, MMSU and Sweet Jubilee-209) that were established in four planting dates (Feb 9th, Mar 9th, Apr 9th, and May 9th 2016) under Los Baños condition. The effect of varying growing environments imposed through different planting dates on maize cultivars were evaluated in terms of growth, yield components, and yield. Planting date had significant effect on phenological durations of the maize cultivars. February planting date with high cumulative solar radiation had longest growth period. April planting date shortened the phenological stages of the maize cultivars. February-planted maize crops exposed to high solar radiation had the highest grain yield (3928.21kg ha⁻¹), more leaves, taller stature, and high leaf area index that contributed to high crop growth rates and high dry matter accumulation. On the other hand, April-planted maize crops with low solar radiation and high rainfall produced the lowest grain yield (2159 kg ha⁻¹) with least number of leaves, shortest stature, low leaf area index that contributed to low crop growth rates, and low total dry matter accumulation with low cumulative solar radiation and high rainfall. MMSU cultivar produced the highest yield in four planting dates in which February planting date was also the best for MMSU cultivar and had the highest average yield (4160.41 kg ha⁻¹). Within the February to May planting window, the February planting date is recommended for growing maize crop under Los Baños condition. The MMSU cultivar performs well under Los Baños condition, particularly in February planting.

Keywords: maize, planting daes, cultivars, yield, climate, solar radiation, rainfall