

Considering the water budget in cornfield for animal consumption

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There are various factors related to hydrological cycle in agricultural land. It is important to clarify how these factors contribute to the process of water budget. In this study, we tried to analyze the elements of water budget in cornfield for animal consumption. Our study site is located in the highland at the foot of Aso caldera.

The observing elements were canopy passing rate of precipitation, evapotranspiration, transpiration, soil water content, and surface evaporation. The observation period was from July 1st to August 29th.

Although canopy passing rate of precipitation was smaller and smaller as corn grows, it increased in August. This was influenced that the lower leaves were withered because of the season of near harvesting and typhoon0610 (WUKONG) approached on August 18th.

Evapotranspiration was ranged 3.5-5.5mm/day and transpiration made up 1mm/day.

Soil water content was ranged 40-50%. In rainy season the response of soil water content for each rainfall events was weak, while after rainy season it changed more sensitively. This result gave the clear diversity of soil water content between both seasons.