ESTIMATION OF POTATO (*Solanum tuberosum*) EVAPOTRANSPIRATION USING BLANEY-CRIDDLE METHOD IN SITIO GAGPANG, BRGY. ALEGRE, BANSALAN, DAVAO, DEL SUR

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ABSTRACT

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This research study aimed to estimate potato (*Solanum tuberosum*) evapotranspiration using the Blaney-Criddle method in Sitio Gagpang, Brgy. Alegre, Bansalan, Davao del Sur. The study collected temperature data from February to April 2022 and computed the reference evapotranspiration (ETo) and crop evapotranspiration (ETc) across different growth stages of the potato crop.

Results show that the mean monthly temperature in the study area is suitable for potato planting, falling within the range of 15 to 20°C. The study also found that potato plants require significant water, and the computed ETo values of 5 mm/day, 4.98 mm/day, and 5.1 mm/day were within the range of water requirements for potato cultivation. Furthermore, the ETc of the potato crop varied across its growth stages, with the highest

ETc in the reproductive stage. The findings can guide farmers in managing their irrigation practices and maximizing crop yields.

Future studies may continue the investigation to the months beyond April or explore other irrigation systems that could be implemented in the study area. Overall, this study provides valuable information on potato crop evapotranspiration rates in Sitio Gagpang, Brgy. Alegre, Bansalan, Davao del Sur, and can aid in improving potato farming practices in the study area.