

**PENENTUAN KOEFISIEN TANAMAN (Kc) SIRSAK (*Annona muricata*)
DI KEBUN BUAH NAWUNGAN DESA SELOPAMIORO,
KECAMATAN IMOIRI, KABUPATEN BANTUL.**

INTISARI

Oleh:

DELVAN ALVIANDI

NIM. 15/379196/TP/11152

Penelitian ini dilakukan untuk menyusun neraca air, menghitung kebutuhan air tanaman, dan menentukan koefisien tanaman (Kc) tanaman sirsak. Penelitian ini berlokasi di blok sirsak kebun buah Nawungan, Desa Selopamioro, Kecamatan Imogiri. Bahan penelitian meliputi deskripsi kebun buah dan monografi desa, peta Rupa Bumi Indonesia skala 1:25.000 dan data iklim aktual. Evapotranspirasi acuan (ET_0) dihitung dengan analisis Penman-Monteith. Analisis neraca air digunakan untuk menentukan kebutuhan air tanaman aktual (ET_a) dan nilai koefisien tanaman (Kc). Nilai kc dihitung secara dual karena sirsak dibudidayakan dengan sistem *agroforestry* dan *mix cropping* antara tanaman tanaman musiman (kacang tanah). Nilai curah hujan dan irigasi selama 2 bulan pengamatan sebesar 328 mm (Februari sebanyak 186 mm dan Maret sebanyak 142 mm). Dari pengamatan iklim, tanah dan air yang dilakukan selama dua bulan diperoleh nilai evapotranspirasi acuan (ET_0) sebesar 5,74 mm/hari, kebutuhan tanaman aktual (ET_a) sebesar 7,98 mm/hari. Nilai Kc sirsak dan Kc kacang tanah prediksi diperoleh sebesar 0,56 dan 0,84. Nilai Kc yang didapatkan dari penelitian ini dapat digunakan sebagai panduan pemberian air irigasi di Kebun Buah Nawungan.

Kata kunci : kebutuhan air tanaman, neraca air, evapotranspirasi acuan, koefisien tanaman.

CROP COEFFICIENT (Kc) DETERMINATION OF SOURSOP TREES
(Annona muricata L)

**AT NAWUNGAN ORCHARD, SELOPAMIORO VILLAGE,
IMOGIRI SUB-DISTRICT, BANTUL REGENCY.**

ABSTRACT

By:

DELVAN ALVIANDI

NIM. 15/379196/TP/11152

This research was conducted to develop a water balance, calculate crop water requirements, and determine the crop coefficient (Kc) of soursop trees. This research was located in the soursop orchard of Nawungan, Selopamioro Village, Imogiri sub-district. The research materials included descriptions of fruit orchards and village monographs, 1: 25,000 scale Indonesian Earth map and actual climate data. The climate and rainfall data were collected using Automatic Weather Station (AWS). The reference evapotranspiration (ET_0) was calculated by Penman-Monteith method. Water balance analysis was employed to determine the actual evapotranspiration (ET_a) and determine the crop coefficient (Kc). The total rainfall for 2 months of observation was 328 mm (In February was 186 mm and March 142 mm) . Calculation of crop coefficient values is carried out in a dual way between soursop and peanut . From observations of climate, soil and water carried out for two months, reference evapotranspiration and actual evapotranspiration were 5,74 mm/day and 7,98 mm/day, respectively. Soursop Kc and peanut Kc predictions were 0,56 and 0,84, respectively. The Kc value obtained from this research can be used as a guide to the provision of irrigation water at Nawungan Orchard.

Keywords: crop water requirements, water balance, reference evapotranspiration, crop coefficient.