

## INTISARI

Setiap tanaman memiliki kebutuhan air yang berbeda, hal tersebut dipengaruhi oleh berbagai faktor yaitu penyiapan lahan, penggunaan konsumtif, perkolasi, pergantian lapisan air, dan curah hujan efektif. Oleh sebab itu dilakukan perhitungan kebutuhan air supaya diketahui dasar kebijakan dalam operasional pendistribusian air. Perhitungan tersebut sangat perlu dilakukan untuk meningkatkan sistem jaringan irigasi. Pembangunan lanjutan Saluran Irigasi Donomulyo Kanan merupakan salah satu usaha peningkatan jaringan irigasi D.I Kalibawang supaya pendistribusian air dapat menyeluruh dan optimal.

Perhitungan analisa kebutuhan air dijelaskan pada Kriteria Perencanaan Irigasi (KP)-01,2013, apabila terdapat variabel yang belum dijelaskan dapat dilihat pada *FAO Guideline for Crop Water Requirements*, 1977. Perencanaan saluran dijelaskan pada Kriteria Perencanaan Irigasi (KP)-03 dan (KP)- 04 untuk perencanaan gorong-gorong.

D.I Kalibawang dalam 1 tahun terdapat 3 kali masa tanam dan 2 golongan . Golongan A dan B pada Masa Tanam I dan II ditanami padi dan pada Masa Tanam III ditanami Jagung (Palawija). Untuk Golongan A masa tanam I proses penyiapan lahan dimulai Bulan November ke-1 dengan kebutuhan air irigasi sebesar 9,22 mm/hari dan proses pertumbuhan padi MT I yang dimulai pada bulan Desember Ke-1 dengan kebutuhan air irigasi sebesar 8,29 mm/hari.

Saluran lanjutan Donomulyo Kanan memiliki panjang 1.320 m yang dibagi menjadi saluran terbuka dengan material pasangan batu dan saluran tertutup (gorong-gorong) menggunakan *box culvert*. Pekerjaan yang dilaksanakan dalam pekerjaan ini yaitu : pekerjaan *survey* dan pengukuran, pekerjaan pembersihan, galian dan timbunan, pemasangan *bowplank*, pasangan batu, plaster dan siar, serta pemasangan *box culvert*.

Kata kunci : Daerah Irigasi Kalibawang, Kebutuhan air irigasi, saluran irigasi

## ABSTRACT

*Each plant has different water needs, it is influenced by some of the factors, they are being called such as a land preparation, a consumptive use, percolation, the changing of water layer, and the effectiveness of rainfall. Therefore the calculation of water requirements is really needed. It is because of that the basic policy in water distribution operations are able to be known. It is also very necessary to improve the irrigation network system. The continuing development of the Donomulyo Kanan Irrigation Channel is one of the efforts to improve the D.I irrigation network Kalibawang it is supposed to be that the distribution of water can be comprehensive and optimal.*

*The Calculation of the water requirements analysis is explained in the Irrigation Planning Criteria (KP) -01,2013, if there are variables that have not been explained yet, it can be seen in the FAO Guidelines for Crop Water Requirements, 1977. The Channel planning is explained in the Irrigation Planning Criteria (KP) -03 and (KP) - 04 for the water-channel.*

*D.I Kalibawang in one year there are three times of planting and have two groups. Groups A and B during Planting Period I and II were planted with rice-plant and during Planting Period III was planted with Corn (Crops). For Group A, the first planting period for the land preparation process started in the 1st of November with water irrigation requirements of 9,22 mm / day and the process of growing the MT I rice starting in the 1st of December with water irrigation requirements of 8,29 mm / day .*

*The advanced channel Donomulyo Kanan has a length of 1,320 m, which is divided into open channels with masonry material, and with closing water channel is using Box Culvert. These are carried out in this work is: survey and measurement work, cleaning work, excavation and stockpiling, installation of Bowplanks, stone pairs, plaster and broadcasting, and installation of box culverts.*

*Keywords: Kalibawang Irrigation Area, Need for irrigation water, irrigation canal*