



INTISARI

Air merupakan faktor penting dalam pertanian. Ketersediaannya yang terbatas dan bervariasi membutuhkan pengelolaan penggunaan air irigasi secara efisien. Metode pemberian air irigasi dan pengelolaan tanah yang tepat akan memberikan hasil yang lebih banyak pada pertanian khususnya tanaman padi. Menghitung kebutuhan air irigasi dapat menghemat pemberian air sesuai kebutuhan tanaman dan kehilangan air yang terjadi. Kebutuhan air tanaman dipengaruhi oleh sifat fisik tanaman, kondisi lahan dan iklim setempat.

Pada penelitian sebelumnya ditanam padi varietas ciherang. Penelitian dilakukan di Rumah Kaca, Fakultas Pertanian UGM pada lahan percobaan (pot). Metode hemat air yang dilakukan adalah *Alternate Wetting and Drying* (AWD), konvensional (KON) dan *Mid Summer Drainage* (MSD). Perhitungan perkolasi dilakukan setiap hari sebelum pemberian air irigasi dengan menimbang berat air perkolasi. Tanah yang digunakan diberikan campuran bahan organik dengan komposisi 40% dan 60%.

Hasil analisis koefisien tanaman terhadap perlakuan pemberian air irigasi menunjukkan bahwa metode AWD merupakan metode paling efisien. Metode AWD dengan bahan organik 40% memiliki nilai koefisien rerata sebesar 2,42. Nilai koefisien tanaman rerata terkecil adalah dengan metode AWD berbahan organik 60% yaitu sebesar 1,98.

Kata kunci : *koefisien tanaman, kebutuhan air, padi*



ABSTRACT

Water is an important factor in cultivation. The limitation of water supply and also its variation needs the correct soil management to provide plenty of supply to the cultivation field especially for rice crops. Calculating the amount of water needs in irrigation can save its distribution to avoid unnecessary water supply lost. It will be affected by physical characteristics of the crops, soil conditions, and its weather.

In the last study, researcher cultivate Ciherang's variety rice. It was done in a green house at Faculty of Agriculture of UGM in a trial soil. Water saving method that were used are Alternate Wetting and Drying (AWD), Conventional (CON), and Mid Summer Drainage (MSD). Percolation / infiltration calculation was done everyday before giving its daily irrigation water supplies by weighing percolation water. Soil type that was used contains organic based mixture with the composition of 40% and 60%.

The analysis resulted that crop's coefficient towards each irrigation method, shows that AWD method is the most efficient. AWD with 40% organic based mixture have an average of coefficient value for 2,42. The smallest average produced in 60% organic based AWD is 1,98.

Keywords : *crops' coefficient, water supply needed, rice*