

## INTISARI

Penelitian yang berjudul Kajian Macam Pengairan dan Varietas Lokal pada Pertumbuhan dan Hasil Padi (*Oryza sativa L*) Metode *SRI* (*System of Rice Intensification*) telah dilakukan di Green House Fakultas Pertanian Universitas Muhammadiyah Yogyakarta pada bulan Juni 2016 hingga Desember 2016. Tujuan penelitian ini yaitu untuk mengetahui pengaruh pengairan berselang dan tergenang terhadap pertumbuhan dan hasil padi varietas lokal, menentukan kesesuaian berbagai varietas lokal dalam pertumbuhan dan hasil padi varietas lokal dan mengetahui interaksi pengairan dan berbagai varietas lokal dalam pertumbuhan dan hasil padi varietas lokal

Penelitian ini dilaksanakan dengan metode percobaan faktorial 2 x 4 yang disusun dalam Rancangan Acak Lengkap (RAL) dengan delapan kombinasi perlakuan yang diulang sebanyak tiga kali sehingga diperoleh 24 unit percobaan . Faktor pertama macam sistem pengairan terdiri atas dua aras yaitu sistem irigasi genangan dan Sistem irigasi berselang (*Intermittent* ), sedangkan faktor kedua macam varietas yang terdiri atas empat aras: Mentik Wangi, Mentik Susu, Rojolele, dan Pandan Wangi. Jumlah tanaman tiap unit percobaan terdiri dari empat tanaman, tiga tanaman sampel dan satu tanaman cadangan. Paramater yang diamati yaitu tinggi tanaman, jumlah anakan, jumlah anakan produktif, panjang malai, bobot gabah segar , bobot gabah kering, bobot 1000 butir, persentase gabah hampa dan hasil tanaman.

Hasil penelitian menunjukkan bahwa penggunaan sistem pengairan tergenang dan berselang memberikan hasil yang sama baik terhadap pertumbuhan dan hasil tanaman padi. Penggunaan Varietas Pandan Wangi sama baik terhadap pertumbuhan dan hasil jika dibandingkan dengan Varietas Mentik Susu dan Mentik Wangi, didasarkan pada bobot 1000 butir, persentase gabah hampa, jumlah gabah dan bobot gabah kering. Varietas Rojolele nyata lebih tinggi dibanding varietas lainnya, sedangkan pada panjang malai dan jumlah anakan Varietas Pandan Wangi nyata lebih panjang dan banyak dibanding Varietas Mentik Wangi, Mentik Susu dan Rojolele. Tidak Terdapat interaksi antara cara pengairan dan varietas lokal padi, kecuali pada jumlah anakan produktif. Kombinasi pengairan tergenang dan varietas mentik susu nyata lebih banyak menghasilkan jumlah anakan produktif dibanding kombinasi perlakuan lainnya.

**Kata kunci** : Macam Pengairan, Varietas Lokal, *SRI*

## **ABSTRACT**

*A study about irrigation methods and local varieties on the growth and yield of rice (*Oryza sativa* L.) in method of SRI (System of Rice Intensification) have been done in Green House and Research Laboratory of University of Muhammadiyah Yogyakarta from June 2016 to December 2016. The purpose of this study was to determine the effect of intermittent irrigation and flooded irrigation on growth and yield of local varieties, to determine the suitability of various local varieties to the growth and yield and determine the interaction of water and various local varieties to the growth and yield of local varieties rice*

*This research was conducted by the method of 2 x 4 factorial experiment wich arranged in a Completely Randomized Design (CRD) with eight treatment combinations with three replications to obtain 24 experimental units. The first factor was various irrigation system consists of two levels i.e. a flooded irrigation and intermittent irrigation. The second factor was local varieties which consists of four levels i.e. a Mentik Wangi, Mentik Susu, Rojolele, and Pandan Wangi. The number of plants per experimental unit consists of four plants, three samples of plants and the spare plant . Those parameters were observed the plant height, number of tillers, number of productive tillers, panicle length, fresh grain weight, dry grain weight, 1000 grain weight, the percentage of unfilled grain and crop yield.*

*The results of this research showed that the use of the flooded irrigation and intermittent irrigation give not significantly different to the the growth and yield of rice . The use of Pandan Wangi varieties was not significantly different on growth and yield than a varieties of mentik susu and Mentik Wangi, based on 1000 grain weight, unfilled grain percentage, number of grains and dry grain weight. Rojolele varieties on plant height were significantly higher than other varieties, while the panicle length and the number of tillers varieties of Pandan Wangi was signicantly higher than Mentik Wangi varieties, Mentik Susu and Rojolele. There was no interactions significantly between irrigation methids and local varieties of rice, except the number of productive tillers. The number of productive tillers on the combination of flooded irrigation and Mentik susu varieties was significantly higher than other treatment combinations.*

*Keywords: Irrigation methods, Local Varieties, SRI.*