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¹⁵N LABELLED AZOLLA AND UREA

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ABSTRACT

COMPARING AZOLLA-N WITH UREA-N ON THEIR ABILITY TO INCREASE RICE YIELD USING ¹⁵N LABELLED AZOLLA AND UREA. A series of experiments have been carried out in the dry season (DS) of 1986/1987 and the wet season (WS) of 1987/1988, to compare the ability of Azolla-N with urea-N in increasing rice yield. All these experiments were field experiments conducted at the Experiment Station of the Institute for Food Crops Development, Sukamandi, West Java. The treatments done in these experiments were, (1) source of N with two levels, namely from Azolla and urea, (2) rates of N applied with five levels i.e. 0, 30, 60, 90, and 120 kg N/ha, (3) interaction between the two treatments. A randomized block design was carried out and all treatments were replicated four times. Parameters observed were, (1) total yield expressed in total yield of grain and straw, (2) total-N yield expressed in total-N yield of grain and straw, (3) percentage of N-derived from Azolla (N-dfA) and N-derived from urea (N-dfU), (4) N yield dfA and dfU and (5) percentage of N recovery dfA and dfU. Results showed that there was no difference between the ability of Azolla-N and urea-N in increasing rice yield. Apparently, Azolla-N was used more by the rice plants than urea-N especially for lower rates, such as, 30 and 60 kg N/ha.

ABSTRAK

MEMBANDINGKAN KEMAMPUAN N-AZOLLA DENGAN N-UREA DALAM MENINGKATKAN HASIL PADI MENGGUNAKAN AZOLLA DAN UREA BERTANDA ¹⁵N. Suatu rangkaian percobaan telah dilakukan dalam musim kemarau (MK) 1986/1987 dan musim penghujan (MP) 1987/1988, untuk membandingkan kemampuan N-Azolla dengan N-urea dalam meningkatkan hasil padi. Semua percobaan ini merupakan percobaan lapangan, dan dilaksanakan di Kebun Percobaan Pusat Penelitian Tanaman Pangan, Sukamandi, Jawa Barat. Perlakuan yang diterapkan dalam percobaan ini ialah, (1) sumber N dengan dua tingkat yaitu Azolla dan urea, (2) takaran N dengan lima tingkat yaitu 0, 30, 60, 90

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