Effects of Different Irrigation Amounts on Yield and Quality Parameters of Flue-Cured Tobacco *Nicotian tobaccum* (cv. *K326*) in Mazandaran Province

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Abstract

In order to investigate the effects of different irrigation regimes on yield quantity and quality of flue-cured tobacco cv. *K326*, an experiment was carried out based on a randomized complete blocks design (RCBD) with three replications, at Tirtash Tobacco Research Center, in 2011. Treatments were combination of $W_1=40\%$, $W_2=60\%$, $W_3=80\%$, and $W_4=100$ percent crop water requirement with $D_1=5$, $D_2=10$, $D_3=15$ days irrigation interval with two control treatments (without irrigation (R) and furrow irrigation (I)). The results showed that treatment $W_4D_1$, $W_4D_2$, $W_4D_3$, $W_3D_1$, $W_3D_2$, $W_3D_3$, $W_2D_1$, and $W_1D_1$ had statistically significant difference with the other treatments and had more dry leaf yield. Also, the minimum leaf chlorine content was observed in $W_4D_2$, $W_3D_1$, $W_2D_1$, $W_1D_1$, $W_1D_2$, and $W_1D_3$ treatments. Under $W_4D_2$, $W_3D_1$, $W_3D_2$, $W_2D_1$, $W_1D_1$, and $W_1D_2$, and $W_1D_3$ treatments, tobacco had statistically significant difference with other treatments and had higher price. Also, the minimum gross income was obtained under $W_2D_2$, $W_2D_3$, $W_1D_3$, I, and R Treatments.

Keywords: Irrigation depth, Irrigation interval, Dry leaf yield, Chlorine percent, Gross income.

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