Effect of different agronomical treatments on flag leaf characteristics of rice

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Abstract
Flag leaf has effective role in grain yield of different rice cultivars. Photosynthesis of flag leaf during grain-filling period is important for final grain carbon content. For this case, know about morphophysiological characteristics of flag leaf under different agronomical treatments is very important. In order to investigating the effects of transplanting date, planting spaces and nitrogen fertilizer levels on area, angle and chlorophyl of flag leaf in rice promising line (IR6874-3-2), a field experiment was carried out in the Rice Research Institute of Iran – Deputy of Mazandaran (Amol) in 2006. Experimental design was arranged in a split plot factorial in basis of Randomized Completely Block design with three replications. Main factor was transplanting date with three levels (May 2, May 12 and May 22) and minor factors were planting space and amount of nitrogen fertilizer in three levels (16 cm × 30 cm, 20 cm × 20 cm, 25 cm × 25 cm and 100, 125, 150 kg N/ha) that carried out as a factorial in sub-plots. Results showed that nitrogen fertilizer have a significant effect on area and angle of flag leaf at 0.01 probability level. Transplanting date and different planting spaces had not significant effects on area, angle and chlorophyl of this line flag leaf. The most flag leaf area and the least flag leaf angle were obtained in 150 kg N/ha. Flag leaf area had a positive correlation and flag leaf angle had a negative correlation with grain yield.

Key words: flag leaf, nitrogen, planting space, rice