Critical Period of Weed Control in Corn (*Zea mays* L.) in Northern Iran Conditions

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Abstract

In order to determination the critical period of weed control in corn (*Zea mays* L. cv. SC 704) in north of Iran, an experiment was conducted at Sari Higher Education Complex of Agricultural Science and Natural Resources, Mazandaran University in 2006. The experiment consisted of 14 treatments which laid out in a randomized complete block design with 4 replications. The treatment included weed free and weed infested period to 4th leaf (V4), 6th leaf (V6), 8th leaf (V8), 10th leaf (V10), 14th leaf (V14), tasseling (T) and harvest stages (Full season weed infestation and weed control were the checks). According to results, weeds dry matter increased with increasing of the weedy period length. Continuation of weed competition to the later stages of crop development caused significant decreasing of ear length, rows per ear and kernel per rows and grain yield so that yield amount was decreased from 9.12 ton per hectare in full season weed control to 3.5 ton per hectare in full season weed infestation treatment. Generally, the peak competition period of weeds in corn crop was between V4 to V10 stages, thus if the weeds are controlled within this period, corn yield would be protected against a significant seed yield reduction.

Key words: corn (*Zea mays* L.), weed, critical period, control, infested

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