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Possibility of tank mixing and foliar application of urea and selective herbicides in wheat (*Triticum aestivum* L.)

M. MINBASHI MOEINI[1*], M. A. BAGHESTANI[1]
and H. RAHIMIAN MASHHADI[2]
1- Weed Research Dept., Iranian Research Institute of Plant Protection
P. O. Box 1454, Tehran 19395
2- University of Tehran, Faculty of Agriculture

ABSTRACT

Chemical herbicides and fertilizers are two important inputs in cereal production systems. Tank mixing and foliar application of urea fertilizer and selective herbicides could cause reduction of inputs and costs, and increase the fertilizers use efficiency in wheat. For verifying this hypothesis, a three year trail was conducted during 1999 to 2001 at weed research station of Plant Pest and Diseases Research Institute in Karaj. The experiments were carried out in randomized completed block design (RCBD) with four replications in a factorial arrangement of treatments. Treatments included herbicide combination at nine levels and urea application in two methods: foliar application and top dressing. The results of the experiment indicated that foliar application of urea had a significant effect on yield. The urea tank mixing with herbicide had no effect on herbicides use efficiency. Among herbicide and urea combinations, Urea+Tribenuron-methyl+Clodinafop-propargile was the best combination for controlling weeds and increasing grain and biological wheat yield. This combination could be used as a tool for increasing nitrogen use efficiency and best chemical treatment for weed management in wheat.

Key words: Urea, Herbicide, Wheat, Tank mixing.

* Corresponding author: Minbashi@yahoo.com

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Address of the authors: M. MINBASHI MOEINI, M. A. BAGHESTANI, Weed Research Dept., Iranian Research Institute of Plant Protection, P. O. Box 1454, Tehran 19395, Iran; H. RAHIMIAN MASHHADI, University of Tehran, Faculty of Agriculture, Karaj, Iran.