

Determination of intraspecific and interspecific competition of different varieties of wheat (*Triticum aestivum*) and weeds in the area of Gilavand

Authors:

Kianoush Shirmohammadi¹,
Ali Ghanbari²,
Mehdi Rastgoo¹,
Eskandar Zand³, and
Mohammed Ali Baghestani
Maybodi⁴

Institution:

1. PhD candidate in Weed
Science, International
College of Ferdowsi
University of Mashhad,
Mashhad, Iran.

2. Associate Professor,
Department of Weeds,
Ferdowsi University of
Mashhad, Mashhad, Iran.

3. Professor of Research
Institute of Weeds, Tehran,
Iran.

Corresponding author:
Ali Ghanbari

ABSTRACT:

This study aimed to investigate intraspecific and interspecific competition of different varieties of wheat (*Triticum aestivum*) and weeds and their effect on the growth of wheat in the area of Gilavand in the crop year 2014-2015. The bivariate factorial experiment was conducted in a randomized complete block design. Regression model $1/w$ (reciprocal of per plant) and natural logarithm of the reciprocal of individual-plant weight ($\ln(1/w)$) and yield per plant (w) were used to determine the species and sub-species of weeds and wheat in the farm. The results showed that the ivy has greatest positive impact on wheat lines (c.81014) in the presence of other species. The interaction between these weeds revealed their positive effect on growth of wheat.

Keywords:

Components of performance, competition, wheat, Performance, weeds