

Evaluation of potato varieties competitiveness with weeds

F. KHALEGHI^{1*}, A. HEJAZI¹, E. ZAND², I. ALLAHDADI¹ and A. JAHEDI³

1- Aboureyhan campus, University of Tehran, Pakdasht

2- Weed Research Department, Iranian Research Institute of Plant Protection

3- Agricultural Research Center of Hamedan

ABSTRACT

In order to study the competitiveness of potato varieties against weeds, a field experiment was conducted in 2002 at agricultural research center of Hamedan. The experimental design was split plot in complete randomized blocks with four replications. In main plot, there were seven potato varieties (with variance in reaching), and subplots were divided into two treatments, one, with weeding, another without weeding. In this experiment, weed had natural growth. The results showed that medium-late varieties such as Cosmos and Diamante with the highest Competitive Index (CI) were competitor, Agria and Moren medium-late and lateseason varieties with the same CI were semicompetitor and Novita with the lowest CI was the weakest variety. The analysis of Ability of Withstand Competition (AWC) showed the medium-late and lateseason varieties such as Agria, Cosmos, Diamante and Moren (lateseason) were more tolerant varieties and on the other hand medium-early varieties such as Novita, Draga and Marfona had the lowest AWC so were recognized as sensitive varieties against weeds.

Key words: ability to withstand competition, competitiveness, interference, potato, weeds.

* Corresponding author: f_kh_2003@yahoo.com

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Address of the authors: Eng. F. KHALEGHI, Dr. A. HEJAZI and Dr. I. ALLAHADADI, Department of Agronomy, Aboureyhan, campus, University of Tehran,

F. Khaleghi, A. Hejazi, E. Zand, I. Allahdadi and A. Jahedi

Pakdasht, Iran; Dr. E. ZAND, Weed Research Department, Iranian Research Institute of Plant Protection, P. O. Box 1454, Tehran 19395, Iran; Eng. A. JAHEDI, Agricultural Research Center of Hamedan.