

Evaluation of yield, yield component and some vegetative characteristics of sixteen rape seed in Arak region, Iran

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Abstract

In order to assessment of phonology, yield, yield components of different rapeseed varieties (*Brassica napus* L.) a field experiment was conducted in 2007-2009 crop season at Experimental Field in Arak Research Institute Agriculture in Iran. In this experiment 16 rapeseed Varieties were compared in a randomized complete block design with three replications. Varieties including Triangle, ES Astrid (RPC 2032), GKH 1103, SLM046, Okapi, Lilian (WRG 229), GKH 305, Lioness, Modena, Billy, Opera, Oase, GK Helena, Zarfam, Talaye and Anatol were used. Seed yield, seed weight, seed number per siliqua in plant, siliqua number in plant, plant height, number of sub-branches, number of days to flowering, number of days to termination, flowering period, growth period, seed filling period, the percentage oil, were measured. Varieties, year and interaction between them were differences for most of measuring traits at 1% and 5% significant levels. All the varieties except Anatol, GKH Helena, SLM 046 and Triangle had high seed yield during two years. Interaction mean between year and varieties showed that opera had the lowest seed number per siliqua in 2007. All varieties had the maximum growth period in 2009 crop season. Anatol had the maximum flowering period with average 38.4 days and the minimum was for Billy (24 days) and ES Astrid in 2009 (23.84 days). The purpose of this research is determination adaptable varieties that they had been high yield in the temperate and cool temperate climate condition. Overallly total result showed that SLM 046, Oase, Talaye and Lioness had the highest seed yield in both two years. SLM 046, Oase, Billy and Okapi had the maximum oil yield in two years.

Key words: rape, oil percentage, yield and yield components.