



## EFFECT OF GROWTH PERIOD ON GRAIN YIELD OF BEAN (*Vicia faba* L) VARIETIES AND LINES GROWN IN IRRIGATED FIELDS

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Article history:	Abstract:
<p><b>Received:</b> 8<sup>th</sup> July 2023</p> <p><b>Accepted:</b> 10<sup>th</sup> August 2023</p> <p><b>Published:</b> 07<sup>th</sup> September 2023</p>	<p>In this article, the influence of the growing period on the grain yield of varieties and lines of bean (<i>Vicia faba</i> L) grown in irrigated fields was studied and analyzed. Based on the results of the research, the varieties and varieties with a positive correlative relationship between the growth period and grain yield of Bean (<i>Vicia faba</i> L) varieties and varieties were selected.</p>
<p><b>Keywords:</b> Bean, irrigated area, variety, ridge, return, selection, southern region, growing season, grain yield, leguminous crop.</p>	

**INTRODUCTION:** Legumes differ not only in the amount of protein, but also in their quality. Legume grain is a valuable concentrate feed for livestock, hay, silage and greens are very nutritious. Legumes have 2-3 times more protein in their seeds, stems and leaves than grains. That is why the seeds of leguminous crops are planted together with other crops. Currently, the bean plant (*Vicia faba* L) covers a wide area of the world, that is, according to the UN FAO, the bean plant covers 24-28 million hectares, 17% among leguminous crops [1].

In the central experimental area of the Southern Agricultural Scientific Research Institute, bean (*Vicia faba* L) varieties and lines were planted in the nursery of competitive variety trials and scientific researches were carried out.

The goal of scientific research is to create new varieties suitable for the climatic conditions of the southern regions, with high protein content and photosynthetic productivity.

The main reason for the spread of beans belonging to *Vicia faba* L species to large areas is that, firstly, it has a valuable biochemical composition, and secondly, it does not require more than the norm of agrotechnical measures during cultivation in order to meet the demand for it. The most favorable abiotic factors for beans are sunlight and fertile black soil. May is the best time to plant bean seeds in the spring. The seed planting depth is 3-4 cm. If there is a lack of moisture, it is recommended to plant at a depth of 5 cm [2].

As a result of the conducted research, it was found that the average growth period of bean varieties and ridges was from 74 to 84 days according to returns.

Luz de OtonoxSel, which has the shortest growing season. 2008 Lat. 638, S2011,110X SEL.2008 LATT.368-2, Misr1X SEL.2008 LATT.49LB, KR20-FBIHTN-16, KR20-FBIF4N-SAEA-11, KR20-FBIHTN-19, KR20-FBIHTN-11 ridge growth period It was determined that it was from 74 to 81 days (Fig. 1).

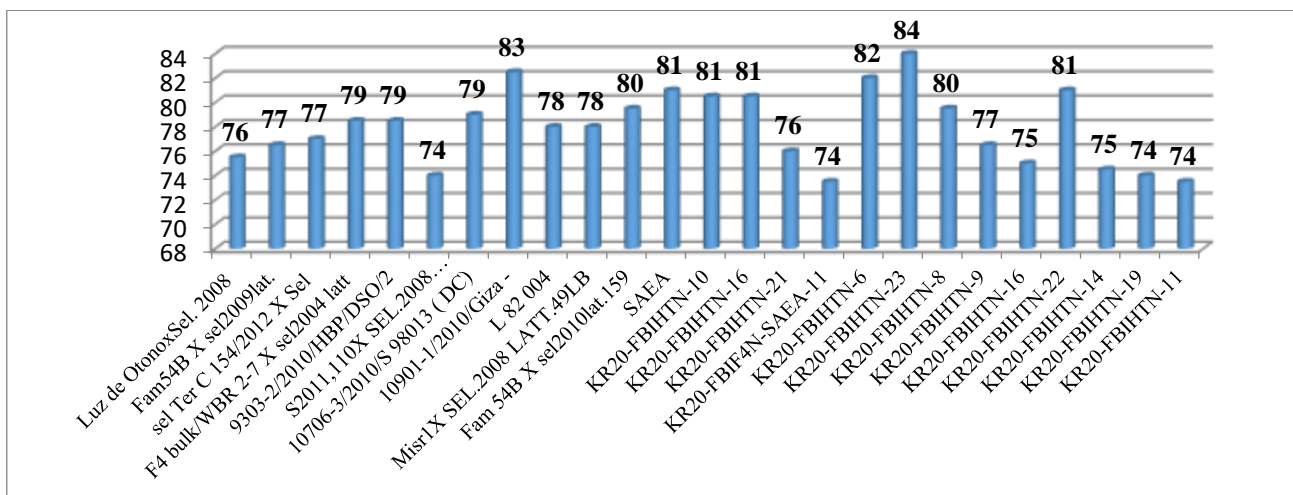


Figure 1: Growth period of bean varieties and ridges, day vs. 2023.

Faba bean (*Vicia faba* L) is an important traditional legume crop in many parts of Asia and the Mediterranean region. However, the 2 main variables associated with climate change, water scarcity and temperature, can have a negative impact on bean development and growth [3].

The following results were obtained when analyzing the grain yield of bean varieties and rows planted in irrigated fields. It was found that the grain yield of bean varieties and rows in the nursery of competitive variety testing was on average 1-5.2 t/s according to returns.

Luz de OtonoxSel, which showed the highest grain yield. 2008 Lat. 638, S2011,110X SEL.2008 LATT.368-2, Misr1X SEL.2008 LATT.49LB, KR20-FBIHTN-16, KR20-FBIF4N-SAEA-11, KR20-FBIHTN-19, KR20-FBIHTN-11 grain yield in ridges It was determined that it was up to 3-5.2 ts/ and was selected for use in selection work (Fig. 2).

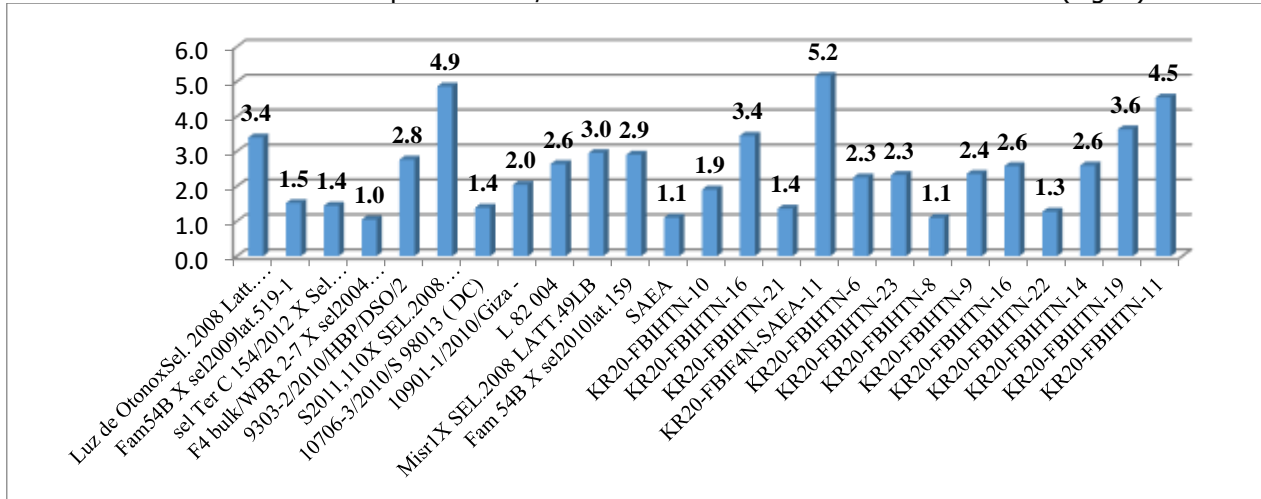


Figure 2: Grain yield of bean varieties and rows in the competition nursery, ts/ha. Against 2023

Beans are a major cereal legume widely grown in many countries for food and feed purposes. A number of fungi and root rot diseases, along with soil-borne pathogens associated with parasites, weeds and viruses, can cause serious diseases in faba bean crops, for example the use of genetic resistance is the most cost-effective environmentally friendly control method. However, until now, effective sources of resistance to some cassias have not been described [4]. When studying the correlative relationship between the growth period and grain yield of bean varieties and lines, it was positive  $r=0.76$ , and it was found that there is a positive correlation between the growth period and grain yield.

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