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Effect of Plowing the Soil of Faba Bean on Soil Productivity and Quality Improvement

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Abstract : The aim of the experiment was to investigate yield and yield components under effect of three different tillage systems and three faba bean varieties on clay-loamy soils. The experiment was conducted as split plot design having tillage systems in main plot and varieties in subplot. A field trial was conducted during the winter seasons of 2021-2022 and 2022-2-23, respectively in private of the agricultural lands of Shobra Beddin village, which belongs to Mansoura District of Dakahlia Province 31°, (04457)- N latitude and 31°4757- E longitude. The soil was prepared. The Seeds covered with a thin layer of soil, sown and watered. Three weeks later, the developed plants were thinned. Finally, the plants collected after 110 days of growth. Growth, yield and chemical contents determined. The results showed that the highest yield in the traditional tillage system corresponds to the superior to other tillage systems. In addition, In the variety comparison, the Sakha 1 variety was characterized by the highest yield as well as the highest values of plant growth properties among the three varieties. Conclusion: The traditional tillage system is increase grain yield of variety Sakha 1 compared with other varieties.

Keywords : yield, tillage system, varieties, faba bean
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