



قسم المحاصيل



جامعة الفيوم
كلية الزراعة

Faculty of Agriculture

Department

Fayoum University

Tenth Article:

Article title	Correlation and Path Coefficient Analysis of Some Earliness Measures in Egyptian Cotton
Participants	Mahdi, A. H. A.¹ and Salah M. Emam³ ¹ Agronomy Department, Faculty of Agriculture, Beni Suef University, Beni Suef, Egypt. ² Agron. Dept., Fac. Agric., Fayoum Univ., Fayoum, Egypt.
Article status	Published - 2020
The Journal	J. of Plant Production, Mansoura Univ., Vol 11 (5):407 - 501, 2020

This study was carried out at the experimental farm of the Faculty of Agriculture, Fayoum University, Egypt, during 2018 and 2019 seasons to assess the relationship between seed cotton yield per plant and five earliness measures in three Egyptian cotton varieties (Giza 80, Giza 90 and Giza 95). The results revealed that significant differences between varieties in all characters under study. The correlation analysis indicated that earliness index and production rate index were had a high correlation and positive with seed cotton yield per plant, while days to the first flower appearance, days to the first boll opening and mean maturity date showed negative correlation with seed cotton yield per plant. The path coefficient analysis showed that earliness index had a high direct effect (43.21%) on seed cotton yield per plant followed by production rate index (27.11%) and their interaction effect was 9.23%. The total contribution of all characters under study was 96.81%. From the above it is clear that earliness index and production rate index were the maximum traits contribution in seed cotton yield per plant therefore, may be used as useful criteria to increase Egyptian cotton yield.