

INTRODUCTION

One of the most pressing problems which face Egypt is to provide food and shelter for the rapidly growing population. The government finds the solution in horizontal agricultural expansion outside the over-crowded Nile Valley and Delta. To fulfill the horizontal expansion aim, the desert lands are a suitable choice. Among the areas suitable for such agricultural expansion, the calcareous desert land fringes lying top the western desert (El-Nobariya area) as well as the Eastern desert (Wadi Sannur).

The soils of El-Nobariya area constitute sediments related to different origins, calcareous fluvio marine and Nile deltaic. Those soils are formed from different sources namely; limestone, bed shale marls, oolitic sand grains and Nilotic deposits. Wadi Sannur represents the calcareous soils of the Eastern Desert, it is located in the east of the Nile Valley and flowing towards the River Nile. It is composed of Eocene limestone.

Generally, the soils under study are derived from two parent materials vary in their mineralogical composition. The calcareous soils of El-Nobariya area are derived from Miocene deposits parent materials, while Eocene ones are dominated at the soil of Wadi Sannur. The variations in the mineralogical composition of both parent materials affect physical and chemical properties of these soils.

The present work has been undertaken to: (1) provide information about morphological, physical and chemical

characteristics of the calcareous soils of the different parent materials (2) evaluate the relevant soil properties (3) conclude the depositional and environmental conditions, of the soils under study as well as their formation, origin and genesis.