I N T R O D U C T I O N

Crop production under arid condition is often limited due to soil salinization. The problem becomes particularly severe under irrigation. In Egypt, saline soil in arid and semi-arid areas, located in the Western and Eastern Mediterranean zones pose difficulties in land use since the application of ameliorative measures is very much constrained by economic and climatic factors. Although leaching of salts by irrigation water and the replacement of exchangeable sodium by calcium containing amendments could improve these soils, in practice this is not feasible because reclamation of lands under such conditions is a costly problem. The alternate approach of economic utilization of saline range lands as well as newly reclaimed soils is by planting salt tolerant plants. Thus, such practices are confined to limited areas, where salinity and exchangeable sodium levels are not extreme. So, the choice of plant species that can tolerate these levels is important in pasture improvement.

Some forage and crop plants, e.g. sugar beets, barley and alfalfa, can tolerate this diverse salty conditions. Among these species, Pennesitum ciliare and Chloris gayana Kunth are more adapted to saline and drought conditions than other species.

The present investigation was conducted to study the effect of different irrigation intervals under different saline treatments on growth, yield and chemical composition of P.ciliare and C.gayana range plants.