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STUDIES ON SOME HALOPHYTES OF PESHAWAR DISTRICT

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ABSTRACT

During the survey of halpohytes in Peshawar District, it was found that *Suaeda fruticosa* and *Desmostachya bipinnata* were the predominant species throughout saline areas which indicated their tolorance towards such soils. The relationship between plant response and soil characteristics show that *Suaeda frutiocosa, Desmostachya bipinnata, Juncellus leavigetus* and *Cynodon dectylon* have a very wide range of adoptation, while *Acacia jaquemontii, Capparis aphyla* and *Tamrix articulata* have close range of adoptation. Species like *Suaeda fruticosa* and *Desmostacbya bipinnata* and *Tamrix articulata* prefer saline and saline sodic conditions while *Juncellus leaziqalus, Cynodon dectylon* and *Acacia iacquemontii* prefer saline sodic condition.

INTRODUCTION

The intimate relationship between plant and soil characteristics have been studied by many scientists (4, 5), especially as indicator of saline and alkali soils: it was found that certain plants have a wide range of adoptation while some plants have the ability to grow only on saline or sodic soils.

Hilgard (6) and Kearncy (7) were among the first to recognise the significance of certain native plants as indicators of the characteristics of soils and to make use of them in determining the availability of saline and alkali soils to agriculture.

Billings and Roberts (2, 9) respectively studied the soil characteristics of several plant communities in Western Nevada and Western United States respectively, found striking differences among the pH, exchangable sodium and total salt content of soils under some plant species as compared to those under other species.

El-Gably, M.M. (3) concluded that *Suaeda fruticosa*, have the ability to survive under both saline and saline sodic soils.

Leon Bernstein (1) found that *Cynodon dactylon* tolerate electrical conductivity upto 12 millimhose.

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