



# The Nature and Management of Salt-Affected Land In Saskatchewan

(Agdex 518, January, 1987)

## Effects of Salt on Plant Growth

The primary effect of salts in soils is to deprive plants of water. Plants need both the water and the nutrients dissolved in it for proper growth. The sap in plant roots contains salt which attracts water into the plant via osmotic pressure. Dissolved salts in the soil increase the osmotic pressure of the soil solution. This decreases the rate at which water from the soil will enter the roots. If the soil solution becomes too concentrated the plants slowly starve, though the supply of water and dissolved nutrients in the soil may be more than adequate. Simply put, the salts prevent the water and nutrients from entering the plant (Figure 2).

