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## DETECTION OF SALINITY FROM LANDSAT DATA

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(Abstract in lieu of Manuscript which  
was unavailable by press time)

### ABSTRACT

The detection and control of salinity in crop lands is very important to the national agricultural development, because the salinity affects directly crop production.

The Ministry of Agricultural and Water Resources has been working since 1977 on the detection of salinity using Landsat data, and some methods using visual and computer assistance techniques have been developed.

The visual analysis is done using enlargements of Landsat frames with the aid of very powerful cannon projectors and combinations of different gelatine color filters (red, blue and green). For example, with the use of band No. 5 over laying a green filter, it is possible to detect more affected saline soils.

Besides in order to realize the visual identification of salinity spots with different levels of affectation, we also use: false color pictures enlargements, periodic analysis of the annual crop cycles and yields.

The results obtained are comparable with a previous ground sampling. The precision reached with this methodology is between 80-85 percent.

The computer assistance analysis is done with the SIADIS system, using a PDP-11/70, and the salinity detection is done as in the visual case.

The methods here described have been used successfully on pilot projects. The results are also commented in this paper.

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