## Factors to consider when setting refill points for irrigation scheduling

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Field experience, using soil water data to schedule irrigations has demonstrated that the refill point or soil water deficit varies from field to field, dependent in many instances on the previous history of each field. The refill point for each individual field needs to be determined so that irrigations can be scheduled for maximum yield.

## This paper discusses:

1) The features of a typical refill point as determined by daily water use, depth of root activity and amount of soil water extraction from neutron probe measurements.

2) The various field proven methods of determining the refill point for a new crop and soil combination to be irrigation scheduled.

The refill point can be effected by:

1) Dry subsoils

2) Soil compaction

3) Variation in root activity between seasons of high and low rainfall and between early and late cotton plantings.

These factors are discussed in relation to irrigation timing for high crop yield.

There is now considerable field experience available using the neutron probe to schedule irrigation. The importance of scheduling the irrigations for individual fields to obtain maximum yields is now recognised as an integral part of modern crop management. The refill point to be of use to schedule these irrigations will vary depending on a variety of circumstances, some of which are illustrated from examples of soil compaction, changing climate and previous crops.