126B

The effects of soil moisture stress on the leaf area and yield of maize var. Ruwan at different growth stages

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A study was conducted in the Green House of the Agronomy Farm at the Eastern University of Sri Lanka to determine the effects of moisture stress on leaf area and yield of maize variety ' Ruwan' during the vegetative, silking and seed development stages of the crop. The experiment was layed out in a Completely Randomized Design (CRD) with four treatments and four replications. Moisture stress was imposed at the above growth stages for a period of eight days by withholding water completely at once. The control plants were watered to field capacity at four days interval.

Moisture stress reduced the leaf area of maize and the reduction was highest when the stress was imposed at the flowering stage of the crop. There was a complete recovery in the leaf area of maize which was subjected to moisture stress during the vegetative stage. There was a partial recovery in the leaf area of the crop which previously experienced moisture stress during the flowering and seed development stages.

Moisture stress reduced the yield of maize and the reduction was highest when the stress was imposed at the silking stage. Moisture stress at the seed development stage of maize also showed significantly lower yield than the control treatment.

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