Stress in irrigated Massai guineagrass in Brazil.

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Experiment field and Results

Entisol - 88% sand, 10.5% clay and 1.5% silt.

Irrigation depths (0, 50 and 100% of crop evapotranspiration) and two residual pasture heights (20 and 30 cm).

21 days grazing cycles (1-d grazing period and 20-d rest period).

300 kg N-Urea

PAM fluorimeter FluorPen FP100 – quantum yield can be placed as a measurement of plant stress.

Implications

• The decline in Qy is a good indicator of photoinhibitory damage when plants are subject to environmental stresses;
• Treatments with irrigation are less stressed compared to rainfed, which is evidenced by the increase in Qy;
• Probably the management height influence in Qy for irrigation depths.

This work was supported by: CNPq & FINEP

Thank you!