Solid Earth Discuss., 6, C523–C525, 2014
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Interactive comment on "Biochar increases plant available water in a sandy soil under an aerobic rice cropping system" *by* M. T. de Melo Carvalho et al.

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Received and published: 2 June 2014

Dear Jose Aloisio,

Thanks for your question.

The response of rice is critic at a matric potential of -100 kPa, when transpiration is drastically reduced affecting grain yield. This was demonstrated in a lowland system by Wopereis et al. (1996). In an aerobic system on a clay soil, Stone et al. (1986) demonstrated that rice production decreases significantly with decreasing soil water potential up to -50 kPa. On a sandy soil, the effect of water deficit on yield is higher than at -50 kPa because the water content in a sandy soil is half of that in a clay soil

according to Soil Water lab data set at Embrapa Rice and Beans. Please find attached some references.

kind regards,

Márcia T. de M. Carvalho.

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/6/C523/2014/sed-6-C523-2014-supplement.pdf

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Interactive comment on Solid Earth Discuss., 6, 887, 2014.

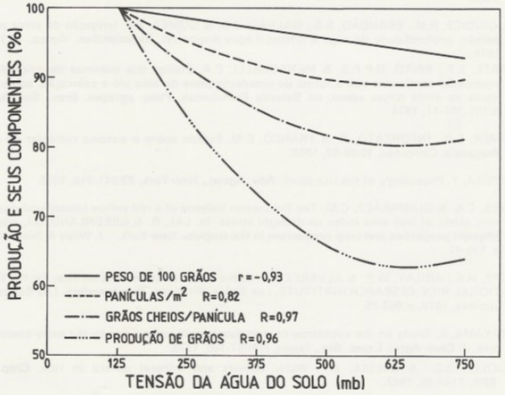

FIGURA 2 – Produção de grãos e seus componentes, expressos em %, em função da irrigação a diferentes tensões da água do solo.

Stone, L. F., Moreira, J. A. A., da Silva, S. C.: Tensão da água do solo e produtividade do arroz. Embrapa Rice and Beans, Comunicado técnico 19:1-6, 1986. Available at: http://www.cnpaf.embrapa.br/transferencia/informacoestecnicas/publicacoesonline/comunicadotecnico_19.pdf

Fig. 1.

SED
6, C523–C525, 2014