

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



AHW025-P03

Room:Convention Hall

Time:May 22 16:15-18:45

Estimation of evapotranspiration, transpiration and soil evaporation in three crop fields with different irrigation

Takahiro Fukuda^{1*}, Michiaki Sugita¹

¹Life & Environ. Sci., Uni.Tsukuba

Projected increase of water consumption due to the planned expansion of agricultural land in Egypt is one of the problems for the sustainable agriculture. Control of evaporative water consumption is suggested as one of the water-saving measures to remedy this issue. Thus it is important to verify the effect of such control measures. Three fields covered with maize within the Nile delta were the target of the study. Two fields employ conventional fallow irrigation while one uses drip irrigation method. Also one of the conventional field was covered with mulching. At three fields, eddy correlation system with relevant meteorological, hydrological and vegetation measurements was installed in June of 2010. Together with data obtained in an intensive measurements in the summer of 2010, data were applied to the Deardorff model to separate evapotranspiration into transpiration and soil evaporation during growing season of maize. Some initial findings will be presented.

Keywords: Nile delta, soil evaporation, transpiration, irrigation