AHW30-P02   Room:Convention Hall   Time:May 22 18:15-19:30

Application of SWAT to the Sakura Riv. watershed. 2.Incorporation of irrigation & management operations into the model.

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To apply SWAT to agricultural watersheds in Japan, the comprehensive soil taxonomy polygon data and the SolphyJ (Agricultural soil profile physical properties database, Japan) were utilized as input data. To predict the water and nitrogen flow-out of Sakasa river, which is a sub-basin of Sakura River, SWAT simulation was done after input of parameters about daily irrigation, fertilizing, harvesting, and physical parameters relating river water flows.

As a first approximation, the predicted water flow was almost agreed with the measured one.On the other hand, the predicted nitrate nitrogen flow was a little larger than the measured one probably because of lack of denitrification in the ponded water above paddy fields.

Keywords: SWAT, irrigation channel, paddy field, agricultural management, comprehensive soil taxonomy