

Manop Promdee 2014: Water Footprint of Organic Jasmine Rice in Surin Province.
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Water footprint is an indicator showing the volume of fresh water by using in every process both directly and indirectly. At present, water has been known as a limited resource. Thus, water management and water use efficiency are important and challenging issues. From previous research, the agricultural sector of Thailand had used a lot of water to produce rice. Water footprint of rice in Thailand is higher than countries in Southeast Asia. However, it is known that different varieties and cultivation of rice are another reason affecting products and water footprint. Since there is the trend of health concerns from people around the world, the dietary organic groups are likely to increase in the future. Organic Jasmine Rice is an attractive alternative according to it is an exported product. Therefore, the water footprint of organic jasmine rice in Thailand should be studied in details. In this study, The local data of climate for finding the evapotranspiration by the Penman-Monteith method and the detailed information on agriculture are collected from the study area. Using agricultural season data in year 2009/2010-2011/2012, used to calculate water footprint. The typical agricultural practice for rice cultivation in this area is the paddy-sown field method. The crop coefficient (K_c) used in this study from the royal irrigation department of Thailand is larger than the value by FAO, In part of jasmine rice production found that the product is less than a half. Thus by using the foundation value might be effected to value water footprint is higher than the previous study These results in case study show that for planting organic jasmine rice in Surin province, the product average is 226.25 ton/km² (362 kg/Rai). Organic jasmine rice has water footprint value equilibrium to 3,440 m³/ton, separated to blue water footprint is 1,243 m²/ton, Green water footprint value 1,544 m²/ton and grey water footprint is 653 m²/ton, that is value are higher than previous study. Moreover, It can be analyze the effected of water using and specify the way in water management and planting with be proper for future

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