

Effect of Indigenous Nitrogen Supply of Soil on the Grain Yield and Fertilizer-N Use Efficiency in Rice [PDF]

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摘要: The effects of application of N fertilizer on wheat on the grain yield and N use efficiency (FNUE) of rice in the wheat-rice rotation system, as well as on the soil fertility were studied. N-fertilizer application on wheat significantly increased total N, ammonium-N and nitrate-N contents in paddy field, resulting in high indigenous N supply of soil (INS). Compared with low INS, the effect of N rate on the grain yield of rice was reduced significantly, and FNUE was decreased under high INS. These results indicated that high INS was one of the main reasons for the low FNUE in rice.

关键词: soil indigenous nitrogen supply; soil fertility; rice; yield; fertilizer use efficiency; nitrogen  
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