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前植物生产层

基于MODIS数据的西北地区旱情监测

摘要：

关键词： 遥感；归一化植被指数；地表温度；干旱；土壤湿度；温度植被干旱指数

On MODIS data based dought monitoring in Northwest China

Abstract:

Northwest China is located in the hinterland of Eurasia and is one of the most arid place in China. Drought has been one of the major blocking factors to local economic development. The soil moisture of every 16 days from June to September 2007 in Northwest China was specially discussed by using normalized difference vegetation index (NDVI) and surface temperature (TS) obtained from the MODIS synthetic products (MOD11A2 and MOD13A2) and using temperature vegetation drought index (TVDI) as a indicator for monitoring soil moisture. The results showed that from June to September 2007 there was not serious or large scaled drought in Northwest China, but there was a wide range of mild to medium drought for long periods of time with only a few areas appearing to be normal. Through the validation of soil moisture data, TVDI largely reflects the conditions of surface soil moisture and is possible to do dynamic monitoring for summer’s drought in Northwest China.

Keywords: remote sensing NDVI TS drought soil moisture

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作者简介:

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