A Big Earth Data Platform for Three Poles

**Distribution maps of crop planting areas in the North China Plain (2001-2018)**

1、Description

The North China Plain is an important food production area in China, with a large area of cropland and a complex planting structure. Accurately identifying the distribution of typical crops in this area and tracking the dynamic changes of planting structure are fundamental for detecting crop growth, evaluating crop irrigation water consumption and optimizing agricultural water resources allocation.
 This study used Fourier transform to obtatin the amplitudes and phases of the 0-5 harmonics of the MOD13Q1 NDVI data. Based on the field sample points and maximum likelihood supervised classification, the planting area of 6 typical crops (winter wheat-summer maize; winter wheat-rice; other double cropping systems; spring maize; cotton; other single cropping systems) in the North China Plain from 2001 to 2018 was identified. The identification results accuracy were evaluated through confusion matrix, comparison with the winter wheat planting area in the county-level statistical yearbook, and comparison with the proportion of winter wheat extracted by Landsat images, all of which showed good performance and high accuracy.
 The data can be applied to related research and analysis on crop production, irrigation water consumption estimation, and groundwater protection in the North China Plain.

2、Keywords

Theme：NDVI,Remote Sensing Technology,Farmland,detection
Discipline：Terrestrial Surface,Remote Sensing Technology
Places：the North China Plain
Time：from 2001 to 2018

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：489.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：40.3951 | - |
| west：113.8346 | - | east：122.6596 |
| - | south：32.1375 | - |

5、Time frame:None--None

6、Reference method

References to data:

LEI Huimin. Distribution maps of crop planting areas in the North China Plain (2001-2018). A Big Earth Data Platform for Three Poles, doi:10.1016/j.compag.2021.1062222022

References to articles:

Li, J., Lei, H. (2021). Tracking the spatio-temporal change of planting area of winter wheat-summer maize cropping system in the North China Plain during 2001-2018. Computers and electronics in Agriculture. 187, 106222.

7、Supporting project information

The National Natural Science Foundation
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8、Data resource provider

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