A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission in the Linze station foci experimental area (May 25, 2008)**

1、Description

The dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission was obtained in the Linze station foci experimental area on May 25, 2008. Observation items included:
 (1) soil moisture (0-5cm) measured once by the cutting ring method in the corner points of the 40 subplots of the west-east desert transit zone strip , three times in the corner points of the nine subplots of the north-south desert transit zone, once by the cutting ring and once by ML2X Soil Moisture Tachometer in the center points of nine subplots of the farmland quadrates. The preprocessed soil volumetric moisture data were archived as Excel files.
 (2) the surface radiative temperature by three handheld infrared thermometer (5# and 6# from Cold and Arid Regions Environmental and Engineering Research Institute, and one from Institute of Geographic Sciences and Natural Resources, which were all calibrated) in the west-east and north-south desert transit zone strip (various times synchronizing with the airplane), and Wulidun farmland quadrates (repeated twice at intervals of 15m from east to west). There are 34 sample points in total and each was repeated three times synchronizing with the airplane. Photos were taken. Data were archived as Excel files.
 (3) maize BRDF once by ASD Spectroradiometer (350～2 500 nm) from BNU, the reference board (40% before Jun. 15 and 20% hereafter), two observation platforms of BNU make and one of Institute of Remote Sensing Applications make in Wulidun farmland. Raw spectral data were archived as binary files, which were recorded daily in detail, and pre-processed data on reflectance were archived as text files (.txt).
 See the metadata record “WATER: Dataset of setting of the sampling plots and stripes in the Linze station foci experimental area” for more information of the quadrate locations.

2、Keywords

Theme：Soil,Surface radiation temperature,Reflectivity,Vegetation,Earth SurFace Processes,Soil moisture/Water content,Terrestrial Surface Remote Sensing,Ground verification information
Discipline：Terrestrial Surface
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches, Closed observation area of Linze station
Time：2008-05-25, 2008

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：20.9MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.379 | - |
| west：100.11 | - | east：100.201 |
| - | south：39.311 | - |

5、Time frame:2008-06-06 16:00:00+00:00--2008-06-06 16:00:00+00:00

6、Reference method

References to data:

ZHU Shijie, XIAO Zhiqiang, WANG Yang. WATER: Dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission in the Linze station foci experimental area (May 25, 2008). A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0098.db2013

References to articles:

7、Supporting project information

The CAS (Chinese Academy of Sciences) Action Plan for West Development Project
National Program on Key Basic Research Project (973 Program

8、Data resource provider

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