A Big Earth Data Platform for Three Poles

**HiWATER: Dataset of crop leaf stomatal conductance observed in the middle reaches of the Heihe River Basin**

1、Description

The data set include crop leaf stomatal conductance observed at four sample regions, that is the soil moisture control experimental field at Daman county, and the super station, and Shiqiao sample plots at Wuxing village in Zhangye city.

1) Objective
Crop leaf stomatal conductance, a key biophysical parameter, was observed as model parameter or a priori knowledge for crop growth model, or evapotranspiration estimation.
2) Measuring instruments
Leaf porometer.
3) Measuring site
a. the soil moisture control experimental field at Daman county,
 Twelve soil water treatments are set. The crop leaf stomatal conductance for each treatment is measured on 17, 23 and 29 May, and 3, 9, 14 and 24 June, and 5 and 12 July.
b. the Super Station
The crop leaf stomatal conductance at the super station is measured on 22 and 28 May, 5, 11, 18, and 25 June, and 1, 8, 15, 22 and 31 July, 9, 15 and 22 August, and 3 and 11 September.
c. the Shiqiao sample site
The crop leaf stomatal conductance at the Shiqiao village is measured on 17, 22 and 28 May, 4, 11, 17 and 25 June, 1, 8, 15, 22, and 30 July, 8, 16 and 27 August, and 9 September.
4) Data processing
 The observational data was recorded in the sheets and reorganized in the EXCEL sheets. The time used in this dataset is in UTC+8 Time.

2、Keywords

Theme：Farmland ecosystem,Wheat,Agricultural Resources,Vegetation,Corn,Transmittance,Farmland
Discipline：Terrestrial Surface,Human-nature Relationship
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches, Daman Superstation,
Time：2012-09-15, 2012, 2012-05-17

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.0MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.95 | - |
| west：100.35 | - | east：100.7 |
| - | south：38.77 | - |

5、Time frame:2018-11-29 18:48:11+00:00--2018-11-29 18:48:11+00:00

6、Reference method

References to data:

MA Mingguo, LI Xin. HiWATER: Dataset of crop leaf stomatal conductance observed in the middle reaches of the Heihe River Basin. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.127.2013.db2017

References to articles:

Li, X., Liu, S.M., Xiao, Q., Ma, M.G., Jin, R., Che, T., Wang, W.Z., Hu, X.L., Xu, Z.W., Wen, J.G., Wang, L.X. (2017). A multiscale dataset for understanding complex eco-hydrological processes in a heterogeneous oasis system. Scientific Data, 4, 170083. doi:10.1038/sdata.2017.83.

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)
The CAS (Chinese Academy of Sciences) Action Plan for West Development Project

8、Data resource provider

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