A Big Earth Data Platform for Three Poles

**Data set of meteorology, soil moisture, soil temperature, crop evapotranspiration and leakage in Pengbo irrigation area of Tibet (2019~2022)**

1、Description

This data set contains the meteorological data of Pengbo irrigation area in Tibet from 2019 to 2022, including rainfall, temperature and relative humidity data, as well as the measured soil moisture and soil temperature data of highland barley, oat and grassland. The data interval is recorded in hours, and the measured time is from 2019 to 2022. The data of soil temperature and soil moisture are relatively detailed, which can reflect the change law of soil moisture and temperature at different time scales of time, day, month, season and year, and can also better meet the calibration and verification requirements of farmland water and heat transport model. The data set also includes crop evapotranspiration data and leakage data, which is helpful to analyze the water consumption of crops in the whole growth period and the water consumption and leakage at different growth stages in the alpine region of Tibet, and plays an important role in clarifying the water balance of different farmland systems. The meteorological, soil moisture, soil temperature, transpiration and leakage data of Pengbo irrigation area in Tibet provided by this data set are helpful to reveal the water transformation process at the farmland scale and irrigation area scale, and fully understand the water and heat transfer process and crop growth state of SPAC system in the high cold region of Tibet.

2、Keywords

Theme：Crops,Surface Water,Vegetation,farmland water cycle,Farmland,Irrigation
Discipline：Terrestrial Surface
Places：Pengbo irrigation district
Time：2019-2022, Different time scales

3、Data details

1.Scale：None

2.Projection：

3.Filesize：7.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：0.0 | - |
| west：0.0 | - | east：0.0 |
| - | south：0.0 | - |

5、Time frame:2018-12-31 16:00:00+00:00--2022-05-31 03:59:59+00:00

6、Reference method

References to data:

TANG Pengcheng . Data set of meteorology, soil moisture, soil temperature, crop evapotranspiration and leakage in Pengbo irrigation area of Tibet (2019~2022). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2725692022

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: TANG Pengcheng
unit: Institute of Water Research for Pastoral Area Institute of Water Resources and Hydropower Research
email: tangpc1988@163.com