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Cover Story: China LAI Observation Cal-Val Network

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Figure 1 Cover Page Image

LAI observation calibration and validation dataset on Yucheng Station titled Shandong Yucheng Station Observation Node Daily Average Leaf Area Index Dataset (2020) was developed by Professor Zhou, Xiang's team of National Engineering Laboratory for Satellite Remote Sensing Applications (NELRS) of Aerospace Information Research Institute, Chinese Academy of Sciences (AIRCAS). It was published in March 2021 at the *Digital Journal of Global Change Data Repository*[1]; the data paper matching with the dataset was published in June 2021 at the *Journal of Global Change Data and Discovery*[2]. It is the first dataset together with full description to be published from the China LAI Observation Cal-Val Network ("China LAI Cal-Val" for short) , which was initialed in 2018.

The "China LAI Cal-Val" is the first one of the satellite oriented ground Cal-Val Systems of China, which is supported by the "National Civil Space Infrastructure Terrestrial Observation Satellite Common Application Support Platform" (NCSISP) project and financed by the National Development and Reform Commission of P. R. China. The purpose of this system is to conduct a specific ecosystem types, long-term LAI calibration and validation network in China. It is consisted of 14 stations covering most geographical regions and ecosystem classes of China. They are Guyuan, Nanjing, Daxinganling, Jingyuetan, Jiangshanjiao, Xitianshan, Haibei, Yucheng, Luancheng, Hefei, Qiyang, Dongting Lake, Qianyanzhou and Guangzhou stations. The Yucheng Station, one of the "China LAI Cal-Val" network stations is located at 116°34′17.08″E, 36°49′44.64″N, its function is the LAI Cal-Val for the wheat-corn double cropping rotated farmland system in the warm temperate zone of China.

The LAI refers to the sum of the leaf area of plants above the ground surface per unit area which is a key indicator reflecting the growth status of plant populations. The establishment of the "China LAI Cal-Val" and its data publication is a new milestone for the research on China satellite-ground integration infrastructure. It is a reliable data infrastructure in meeting the challenges of the LAI data quality. It plays an irreplaceable role in scientific research in climate change, ecological environment, and sustainable agriculture.

(Cover Page Image Designer: Liu, Chuang; Maker: Yan, Shi)

References

[1] Li, R., Zhou, X., Lyv, T. T., *et al*. Leaf area index daily dataset from observation nodes in Yucheng of Shandong province, China (2020) [J/DB/OL]. *Digital Journal of Global Change Data Repository*, 2021. https://doi.org/10.3974/geodb.2021.03.01.V1. https://cstr.escience.org.cn/CSTR:20146.11.2021.03.01.V1.

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