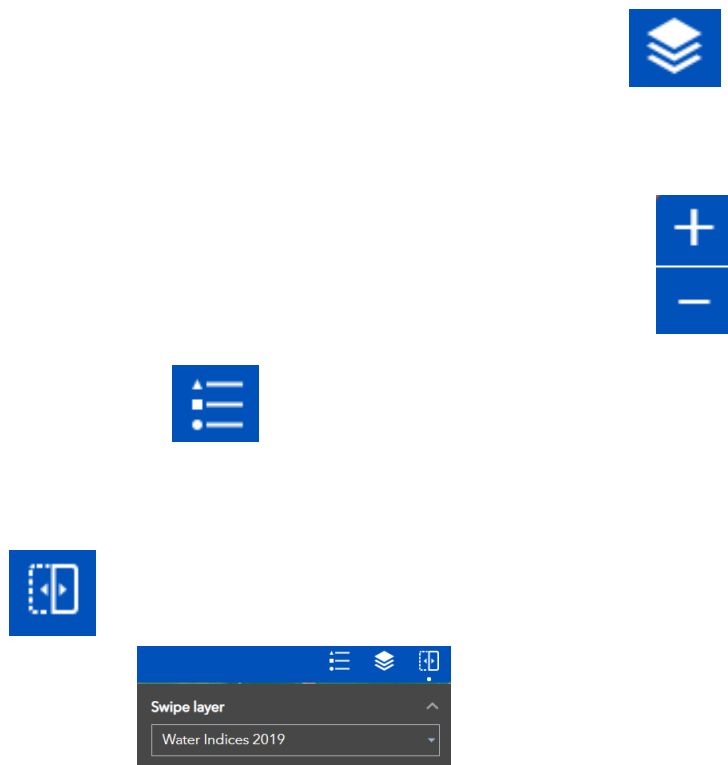


User Guide for The Kansas University Field Station (KUFS) NEON Viewer

The KUFS Neon Viewer is an online Web Application that provides tools for data exploration and visualization of the National Science Foundation's National Earth Observation Network (NEON) data collected at the KU Field Station (KUFS), one of 81 sites across 20 domains (ecosystems) across the US. The KUFS is considered a Terrestrial Gradient Site in the Prairie Peninsula domain.

<https://www.neonscience.org/field-sites/ukfs>

This tool was created by KansasView with funding from AmericaView, a national University led consortium sponsored by the US Geological Survey supporting the use of Landsat and other public domain remote sensing imagery through research, education, workforce development, and technology transfer. For more information about KansasView please visit <http://www.ksview.org/> . For more information about the AmericaView please visit <https://americaview.org/>



Below is a description of the data layers available in the KUFS Neon Viewer.

Neon's field data include Neon's field points and field plots: Field points identify the type of data being collected, for example, birds, mammals, vegetation (phenology), etc. Neon's field plots show the extent within where field data were collected for the different categories of data.

Neon’s Airborne Observation Platform Data (AOP): These data are collected using an airborne system that is used to create high resolution data products (<=1m2). The AOP consist of three systems: Waveform LiDAR, Imaging Spectrometer and orthorectified RGB camera imagery.

For more information on NEON data products: <https://data.neonscience.org/data-products/explore>

Other Remotely sensed imagery: Sentinel-2 (ESA, 2019; ESRI, 2018), Landsat 8 imagery (USGS, 2019, 2014), and NAIP (National Agriculture Imagery Program) imagery (USDA, 2016) are also part of the layers of data available. Through ESRI’s Living Atlas, these image services are available in a variety of band combinations including natural color and false-color infrared. Table 3 details the differences for each of the band combinations for each sensor including the bands used and the benefits of each combination. Additionally, the image services for Sentinel-2 and Landsat are updated daily as new scenes become available meaning that users have access the latest imagery of their target areas. In addition, the three types of imagery differ spatial and temporal resolutions that provide options for multiple scale applications and visualization.

Table 1: Band combinations and ratios for Sentinel-2, Landsat 8, and NAIP imagery products used in the KUFs Neon Viewer.

Band Combination	Sentinel-2 10-meter pixels	Landsat 8 30-meter pixels	NAIP (Aerial Imagery) 1-meter pixels	Benefits
Natural Color	Band 4: Red Band 3: Green Band 2: Blue	Band 4: Red Band 3: Green Band 2: Blue	Red Green Blue	Image resembles what would be observed naturally by the human eye.
False-Color Infrared	Band 8: Near- infrared Band 4: Red Band 3: Green	Band 5: Near- infrared Band 4: Red Band 3: Green	Near-infrared Red Green	Healthy vegetation appears red and is valuable for assessing plant health.

For questions about the KUFs NEON Viewer, please contact:

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