Metadata Records
Irrigation Innovation Consortium-Supported Project Datasets and Information Products

Please use a separate sheet for each dataset. Answers are automatically saved.
Questions? Contact Diane DeJong: diane.de_jong@colostate.edu.

Question	Answer
Project name	Deployment and maintenance of flux towers in Kansas to be integrated to the Parallel 41 Flux Network to support multi-state real-time evapotranspiration estimates
Project background	Field-scale ET estimates are important to improve rural and urban irrigation water use. In most eddy covariance flux networks; large raw data files are stored in memory cards at the experimental site. These cards are later physically transported to the laboratory to be analyzed using software running on personal computers. This data collection and analysis process can cause substantial delays in flux calculations making the use of EC ET data often unfeasible for irrigation management and water demand estimates. The advent of on-site flux processing tools could allow near-instantaneous flux calculations that are made available in real time to different stakeholders using existing 3G/4G cellphone infrastructure.
Dataset name	Eddy covariance flux datasets collected in Kansas sites to improve water management
Primary author Include first & last name, institution affiliation, and email address.	Eduardo Alvarez Santos, Kansas State University, esantos@ksu.edu
Primary contact The primary contact may be the same or different from the primary author. Include first & last name, institution affiliation, and email address.	Eduardo Alvarez Santos, Kansas State University, esantos@ksu.edu
Dataset description Please provide a brief, clear summary description of the dataset contents. Indicate as applicable: purpose and scope; time period; areas of investigation; and any other special characteristics.	This project generates a multi-month flux dataset with energy, evapotranspiration and CO2 fluxes collected.
Spatial coverage Please be specific as possible about the geographic coverage of your data, and record the information according to defined standards, such as FGDC or the Getty Thesaurus of Geographic Names. You can enter lat/long data, county names, state names, etc.	The flux data were collected in two sites: at an agricultural site on the Konza Prairie Biological station near Manhattan, Riley County, KS (Lat: 39.1069° N, 96.6091° W) and at a collaborators field collaborrator field near Gypsum, Saline, KS.
Temporal coverage Describe the temporal coverage of your dataset: Start: Time of day, Date, Month, Year Finish: Time of day, Date, Month Year	Start: November 2020 and End date: June 2021 - Konza, Gypsum site - Start: October 2021 to June 2022
Re-use limitations Describe known problems or caveats that would limit reuse of the data (e.g., uncertainty, sampling problems, blanks, quality control samples) and/or that future potential users of your dataset should know about. Or indicate "None."	Flux datas were processed and gaps in the dataset were cause by equipment failure and when conditions were not ideal for flux meausrements. Those periods were excluded from the dataset.

Citations Please include full citations and DOIs for articles published based on or related to this dataset. Or indicate "None."	Adolpho Emanuel Quintela da Rocha, Eduardo Alvarez Santos, Clenton Owensby, Partitioning evapotranspiration and carbon flux in ungrazed and grazed tallgrass prairie, Agriculture, Ecosystems & Environment, Volume 343, 2023, 108285, ISSN 0167-8809, https://doi.org/10.1016/j.agee.2022.108285. Rocha, A. E. Q., Santos, E. A. Energy balance closure and spatial representativeness of eddy covariance measurements in a tallgrass prairie", was submitted to Brazilian Journal of Agrometeorology
Keywords Please add a few appropriate National Agricultural Library keywords: https://agclass.nal.usda.gov/vocabularies/nalt	evapotranspiration; Kansas; eddy covariance; irrigation scheduling;
Tags Please add a few of your own user-defined tags that would be useful to others who might use your dataset in the future.	Grasslands; Grazing; Gross primary productivity; Ecosystem respiration; Evapotranspiration partitioning
Acronyms & abbreviations Please define any acronyms, site abbreviations, or other project specific designations used in your dataset. Or indicate "none."	None
Other dataset storage location Has this dataset already been uploaded elsewhere? Yes or No Reasons may include a requirement as part of publishing a paper or storing data on GitHub or other locations to make accessible to others. If yes, please provide the link or other information to explain where the dataset is located and where or how it can be accessed.	The dataset has not been uploaded elsewhere. It is saved in the K-State storage server. The dataset can be shared upon request by contacting Eduardo Santos - esantos@ksu.edu.
Thank you!	