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NAPPN Annual Conference Abstract: Can we make phenomic, genetic, and genomic data FAIR? The AgBioData road trip towards best practices of data sharing and management in agricultural research and education.

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BodyText: AgBioData is a consortium of agricultural biological databases with the mission of consolidating standards and best practices for acquiring, displaying, and reusing genomic, genetic, and breeding (GGB) data. In 2021 we received funding from the National Science Foundation for a Research Coordination Network grant, to enable Findable, Accessible, Interoperable, and Reusable (FAIR) data in agricultural research. We have four main goals: (1)



develop community-based standards for GGB data sharing and management; (2) expand the AgBioData network by recruiting key stakeholders in agricultural research; (3) provide educational material to train researchers on FAIR data sharing; and (4) develop a roadmap for a sustainable genomic, genetic and breeding (GGB) Database Ecosystem. We just started our second year of the grant by launching new working groups addressing data-related issues and priorities in agricultural research and education. Sharing, accessing, and managing phenotypic data, especially those generated with the new digital and high-throughput technologies, was one of the issues raised by the AgBioData community. The diversity of protocols and data types in phenomics make the issue challenging. An open discussion involving generators, users, and curators of phenomic data is needed to develop standards of data sharing and promote FAIR data in phenomics. We invite the phenomics community to join our network (<https://www.agbiodata.org/>) and contribute to our mission.