NAPPN Annual Conference Abstract: Smart glasses -an emerging platform for plant phenotyping and crop science collaboration

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Smart glasses are a rapidly emerging mobile data platform, which can be operated in a hands-free manner through voice commands, a heads-up display and a range of sensors and other digital features. As such, smart glasses enable crop scientists, horticulturalists and agronomists to capture, send and receive digital information, while leaving their hands free to carry out accompanying hands-on tasks or plant manipulations.

Phenotypic data increasingly drives agricultural and horticultural development and breeding pipeline discovery. Real-world use cases from innovative agriculture and horticulture technology companies, such as Bayer Crop Science, demonstrate how smart glasses are: 1. serving as a digital phenotyping platform that complements established phenotyping platforms; 2. significantly increases efficiency in phenotypic data collection; 3. facilitate remote collaborations on experiments and other agronomic activities. Smart glass technology integrates easily into existing apps extending capabilities and workflows.