Tasks	***Deliverables***	***Success Criteria***
Task 1.1: Crop Selection and Field Data Collection	• *Images and videos of crop canopies* • *Hyperspectral images of crop canopies* • *3D dataset of crop canopies* • *RGB-D images of plant rows, headlands and enter-field paths*	• *>5 crops used in creating the datasets* • *>10 types of datasets collected for each crop*
Task 1.2: Enhancing Data Variability, Quality and Access	• *Images of various objects or regions of interest covering range of plant conditions* • *Manually annotated images with various objects or regions of interest identified (e.g., flower, branches)* • *Synthetically generated data to broaden range of plant and image conditions* • *Open-source access to database*	• *Comprehensive dataset for multiple crops, including synthetically generated data* • *Accurately annotated image data for benchmarking* • *Easy accessibility of data*
Task 1.3: Data collection and sharing standards	• *Working groups with ASABE MS and ITSC communities for digital agriculture standards* • *Guideline for proposing and maintaining standards for AA* • *Standards on data acquisition using RGB/RGB-D, multi-/hyper-spectral imaging, and LiDAR/laser scanners for AA*	• *Establish 2 working groups at the ASABE MS and ITSC community level* • *Publish and implement the guideline for standard development on AA* • *3 standards on RGB/RGB-D, multi-/hyperspectral, and LiDAR/laser scanner sensors for AA in the field*