PlantMap3D

A versatile tool for mapping and monitoring cash crops, cover crops, and weeds in your fields

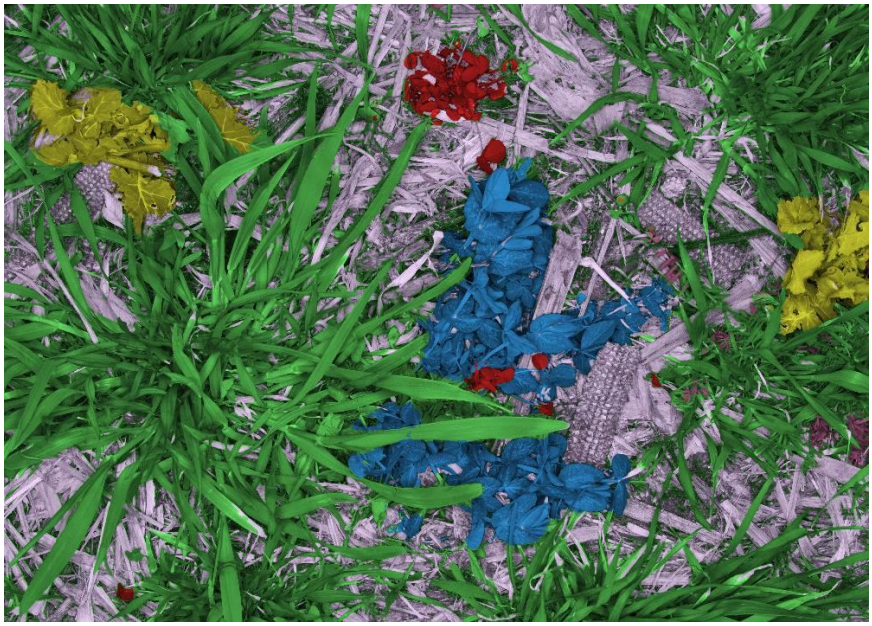

Figure 1. Pixel-based classification of cover crop mixtures combined with depth mapping enables estimation of biomass of each species.

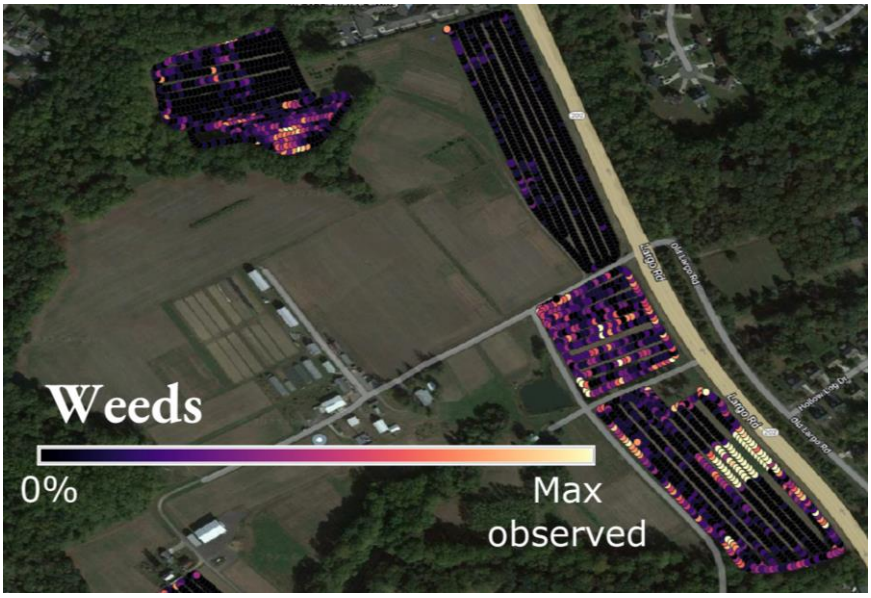

Figure 2. Example map illustrating distribution of weed populations across farm fields, generated by aggregating data on species composition from automated image collection occurring during other field operations.

Real-time Mapping

Site-specific crop and weed management depends on knowing where and when an issue needs to be addressed. Long-term planning requires data on how crops and weeds respond to management practices. PlantMap3D uses low-cost cameras and open-access, AI-based software to generate detailed maps of the plant species present and their height and estimated biomass before you leave the field. Future targets for new features include monitoring crops for pest damage and environmental stress.

Interested in trying this technology on your farm?

- We are seeking two Ohio farmers to participate in a USDA and USB co-funded project starting Fall 2024.
- On-farm trials will involve installing a camera system on your sprayer to map cover crops and weeds in soybean fields.
- Fields should have at least five years of cover cropping history, and 'healthy' weed populations are preferred.
- You will also participate in interviews or focus groups to provide feedback on your experience using the mapping technology and the information it generates for your farm.
- Contact Dr. Eugene Law – Law.262@osu.edu – if you would like to learn more about the project.

OSU Weed Science Program

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