Special Issue

4D Crop and Livestock Monitoring in Agriculture

Message from the Guest Editor

High spatial and temporal data collection from proximal and remote sensing platforms has increased dramatically in the past decade. What we have come to call “4-D monitoring” has the potential to provide farmers actionable information for improved crop and livestock management by determining the spatio-temporal relationships between crop and livestock production and the abiotic and biotic stresses that threaten sustainable agriculture. Similar sensing platforms are used to assist with high throughput phenotyping (HTP) of crop genotypes. By measuring the phenotypic traits response to controlled genotypes and environmental conditions, research scientists select for desirable traits at a much faster rate than was previously possible. This Special Issue looks to bring together cutting edge research on the questions of not just the technology being developed and used to collect spatio-temporal crop, livestock, pest, weather, and soils data (4-D monitoring), but to ask the questions that can utilize the rapid increase in data collection, analysis, and prediction to improve sustainable agricultural production.

Guest Editor

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