draganFLY INC

Agriculture Use Cases
Herbicide Use

University of Saskatchewan | College of Agriculture and Bioresources

Evaluation Of Herbicide Damage To Fababean Using UAV Imagery

UAV imagery-based vegetation indices (VI) applications in agricultural remote sensing. A University research team act the **College of Agriculture and Bioresources** set out to determine if **UAV imagery** provides **accurate and consistent estimations of crop damage with potential to replace manual visual ratings.** Using the Draganfly Commander and the **Micasense Rededge multispectral camera** over the course of a 2 year study, it was determined that undesirable variability associated with visual assessments can be **minimized with UAV-based approach. UAV-based vegetation index (OSAVI)** produced more precise results compared to visual ratings for both years. The **coefficient of variation (CV) of OSAVI is ~1%** when compared to **~8% for the visual ratings.**

Researchers were able to determine **unmanned aerial vehicles (UAVs)** are capable of obtaining **high resolution imagery at low-cost with greater operational flexibility** when compared to conventional platforms. Traditional visual rating system are labor intensive, time-consuming and prone to human error. The study indicated that image-based systems have **potential to replace visual ratings**

Draganfly Commander

Micaseense RedEdge MultiSpectral Camera

Image Processing Workflow