

Identification of vegetal plant species from colour and pattern analysis of drone images

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Images at several elevation and resolution from UAV equipped with a visible colour camera have been analysed to identify plant species and map their distribution. The analysis has focused on two typical weeds of field cropped with sugar beets, *Chenopium Album* and *Sinapis Arvensis*, in their adult and already spread stage. The analysis focused on identification of characteristic hue windows proving the possibility to discriminate both from background bare soil and crop. The methodology can be profitably used in agriculture to reduce chemically treated surfaces, integrated with the growing precision agriculture tools.