UASI Potato Monitoring flight campaign preliminary results

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It is foreseen that using UAV Hyperspectral imaging new tools to reduce the environmental impact of potato cultivation can be developed. This would offer potato sector more options to reduce the number of sprays, and/or the dosage, while ensuring crop health. With the aid of Hyperspectral imaging novel approaches could be developed for monitoring the plant health and these new data sets could be used in the operational decision support system (DSS) to minimize the number and amount of chemical dosages in potato cultivation. UASI project funded by Tekes, the Finnish Funding Agency for Technology and Innovation, aims to develop technologies for the Unmanned Systems based services. As part of the agriculture application evaluation the UAV imaging of the test plots of Potato Research Institute were performed in July and in August with the UASI 2012 hyperspectral imager prototype.

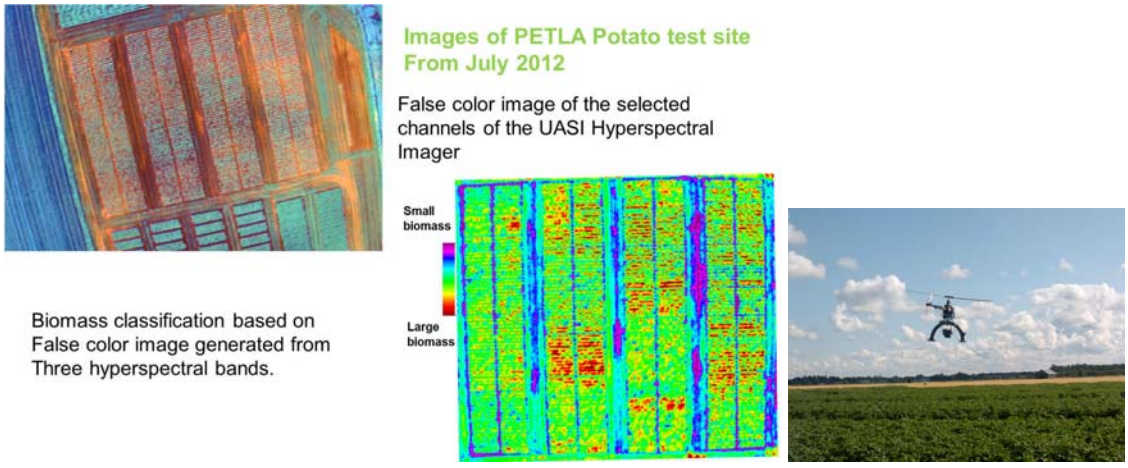

Figure 1. Preliminary result of the biomass determination of the PETLA Potato test filed in Ylistaro based on three Hyperspectral wavelength band images recorded on 12.7.2012.

References

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[2] Mäkynen, Jussi; Holmlund, Christer; Saari, Heikki; Ojala, Kai; Antila, Tapani "Multi- and hyperspectral UAV imaging system for forest and agriculture", SPIE . Vol. 8374-09 (2012).