GOOD
AGROECOLOGY FOR WEEDS

Practice Abstract Nº 4

Unmanned Aerial Systems (UAS) for weed mapping

INTRODUCTION

Automated weed mapping can eventually be applied for site-specific weed management. Very high (mm) to high (cm) resolution RGB data are collected with UAS (unmanned aerial system) technology and are then analysed using deep learning technologies, either in a semi-automated (supervised) or automated (unsupervised) way. This results in weed density maps of either all weeds combined, of different genera of weeds, or of different species of weeds.

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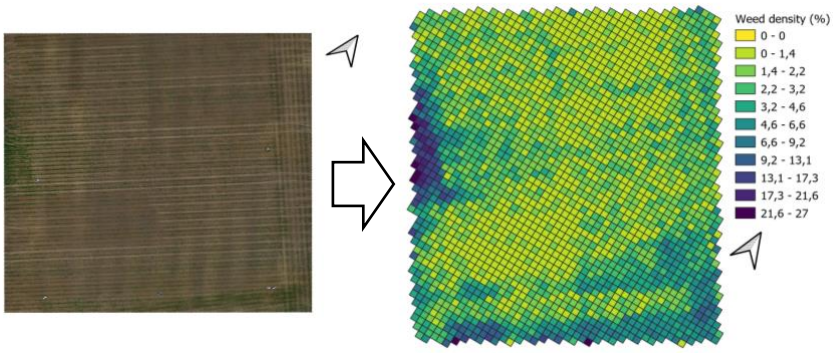
MAIN RESULTS – OUTCOMES

The main purpose of the digital maps is that they can eventually be used to automate weed management interventions. This is of course specific for each crop-weed species case, but based on the density maps and the acceptable weed pressure, the field can be divided into blocks, corresponding to the achievable minimal management unit, with each block being assigned the most suitable weed management (e.g., site-specific spraying)



If you want to learn more about weed mapping with drones, watch our videos!
https://youtu.be/kuOkQAnqcuM?feature=shared

PRACTICAL RECOMMENDATIONS

Design carefully the flight operations, select an appropriate UAS with efficient resolution, seek the advice/support of experts

European Commission

You can read more in our open-access deliverable in Cordis
https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e514015a12&appId=PPGMS

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