INTEGRATING UAV'S INTO YOUR CROP MANAGEMENT SYSTEM

Brian Luck 1/

Abstract

Unmanned aerial vehicles (UAV's) have recently been a hot topic of discussion. Several industries, including agriculture, have expressed interest in implementing these devices to aid in performing various tasks. Implementation of UAV's in our current infrastructure poses several potential problems which are currently being addressed by Federal Aviation Administration (FAA) regulators. Integration of UAV's in agriculture production will have a major impact on how information about a crop is gathered throughout the growing season. Visual crop assessment and vegetative index data currently provide indicators to the state of the crop. This data is usually collected manually or via sensors mounted on a machine based tool bar. Several benefits can be gained by gathering this data with an aerial platform. This presentation will cover the FAA's progress on regulating the use of UAV's in the United States, the different types of UAV's currently available with pro's and con's of each, and the data collection capabilities of the UAV's and how the data can help crop management.

 $^{^{1/}}$ Assistant Professor, Biological Systems Engineering, Univ. of Wisconsin-Madison, Madison, WI 53706.