Introduction to robotics agriculture in pest control: a review

ABSTRACT

Agriculture is one of the latest industries that uses robotic technologies. Cultivation of crops with high yield and quality can be enhanced when technological sustenance is involved. Pests are nuisance and cannot be completely eliminated, but with effective control and management, damages caused by pests could be minimized below economic threshold. Automation in agriculture is stable and accurate and is mainly incorporated in mechanized farming system. However its numerous application in different agricultural practices is not well noticed. Hence this paper attempts to provide profound awareness on robotic technology in agriculture. Robots could have a specific or multiple functions and, most commonly, they are made up of five basic components; sensors, effectors, actuators, controller and arms. Use of automation in weeding, weed mapping, micro spraying, seeding, irrigation and harvesting are progressions which promote sustainable agriculture and food security. In future, solar robots with battery inverter may be invented.

Keyword: Pest; Agriculture; Automation machine; Sensor; Weed controller; Micro sprayer