AGRICULTURE 4.0: Start Agricultural robotics and automated equipment for sustainable crop production

Abstract:

Agricultural technologies are rapidly evolving towards a new paradigm – Agriculture 4.0. Within this paradigm, digitalization, automation and artificial intelligence play a major role in crop production, including weeding and pest control. This evolution presents both challenges and opportunities, such as leapfrogging from manual and animal-driven technologies to automated and mechanized equipment in developing countries and closing the digital divide. Traditional agricultural mechanization, characterized by the use of tractors and engine power, will be matched and even surpassed by automated equipment and robotics and the precision they can provide in farm operations.