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Precision Farming for Sustainable Agriculture

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Abstract: *The world faces the challenge of providing adequate healthy food for a growing population while also addressing environmental conservation concerns. Traditional farming practices, including clearance of vegetative cover (Mark Gregory, 2017), have led to climate change and environmental degradation, particularly visible in developing countries where resources are often limited. This research paper explores how precision farming, supported by technologies such as remote sensing, data analytics, and artificial intelligence, can offer a solution to this dilemma. Precision farming techniques enable efficient use of resources and enhance agricultural productivity while minimizing environmental impact. This paper discusses the role of precision farming in promoting sustainable agriculture in developing countries and highlights the potential of technology-driven approaches to address the complex challenges facing food production and environmental conservation*

Keywords: Precision farming, remote sensing, data analytics, AI