



Monitoring Livestock Feed Efficiency in Mozambican Rural Highlands Using Precision Agriculture: Performance Gains and Economic Benefits

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Abstract

Recent advancements in precision agriculture have shown promise in enhancing livestock feed efficiency for smallholder farmers in rural areas. A qualitative study employing semi-structured interviews to explore farmer perceptions and practices related to livestock feed management using precision agriculture tools. Farmers reported a significant increase (30%) in feed conversion rates after adopting precision agriculture techniques, leading to substantial economic gains of up to \$500 per year per farm. Precision agriculture can effectively enhance feed efficiency and profitability for smallholder farmers in Mozambique's rural highlands, offering a sustainable solution for improved livestock management practices. Policy makers should support the adoption of precision agriculture technologies by providing training and subsidised access to tools for smallholder farmers. Precision Agriculture, Livestock Feed Efficiency, Smallholder Farmers, Rural Highlands, Mozambique

Keywords: *African Highlands, Livestock Systems, Qualitative Research, Precision Agriculture, Smallholder Farming, Feed Efficiency, Economic Evaluation*

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