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EFFECTIVENESS OF IMPROVED MANAGEMENT PRACTICES AMONG SHEEP AND GOAT FARMERS IN SOUTHWEST, NIGERIA

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ABSTRACT

The study assessed the effectiveness of improved sheep and goats' management practices in Southwest, Nigeria using structured interview schedule of 360 sheep and goats farmers selected through multi-stage sampling. The objectives were to assess socio-economic characteristics, identified improved management practices, describe the perception of farmers and assess the effectiveness of improved management practices. Percentages, means, standard deviation, Chi-square and correlation were used to draw inferences. Results revealed that the mean age of sheep and goats' farmers was 53 years. 50.36 percent were male and 46.94 were female. Majority (86.11%) of the respondents were married with mean income of N631,459.6 and flock size of 14 hectares. 46.39 percent belong to cooperative society while majority (92.78%) expended N500, 000.00 or less than on adopted improved technology. The mean awareness of the management practices was 3.73 while the perception of the improved management practices was high (96.94%). 40.3% of the farmers had moderate adoption levels while the level of effectiveness of improved sheep and goats' management practices was moderately high (68.3%). The mean years of experience and schooling of the respondents were 14.42 years and 10 years respectively. There was positive and significant relationship between effectiveness of improved management practices and farmer's perception (0.356; $p \leq 0.01$). The study concluded that improved sheep and goats' management practices disseminated to farmers were perceived to improved their production and standard of living. The study recommends that Governments agencies should provide affordable vaccines and medications to reduce the financial burden on farmers.

Keywords: Effectiveness, Management Practices, Improved Sheep and Goats, Perception

INTRODUCTION

In Nigeria, small ruminants comprise a significant proportion of the livestock population, estimated at 19 million sheep and 28 million goats (Tella, & Chineke 2022). These livestock are key resources to the keepers for their role in the provision of food, socio-economic needs, and cultural activities (Adebayo *et al.*, 2020). The livestock sub-sector is an important and integral component of Nigeria's agriculture and is a major source of household wealth and food security. Livestock production, particularly the rearing of small ruminants such as sheep and goats, plays a vital role in the livelihoods of rural households in South West Nigeria. These animals serve as important sources of income, nutrition, employment, and social security. However, traditional management practices commonly employed by smallholder farmers have often led to low productivity, poor animal health, and high mortality rates, thereby limiting the full potential of the sector. Small ruminants constitute an essential component of the livestock sector in Nigeria, especially in the South West, where they significantly contribute to household income, food security, and rural livelihoods (FAO, 2021). Despite their socio-economic importance, the productivity of these animals remains low due to traditional management practices characterized by poor feeding, inadequate housing, limited veterinary services, and suboptimal breeding methods.

In response to these challenges, several improved management practices have been introduced over the past decade by governmental and non-governmental

organizations. These include enhanced nutrition through feed supplementation, construction of ventilated housing systems, vaccination and deworming programs, and controlled breeding techniques (Nwosu *et al.*, 2023). However, the level of adoption of these innovations among smallholder farmers remains inconsistent, and their effectiveness in improving livestock health, productivity, and farmers' economic returns has not been comprehensively evaluated across the region. Despite these interventions, there appears to be a persistent gap between the expected benefits of these improved practices and the actual outcomes observed on the ground.

Preliminary reports suggest that many farmers either partially adopt or abandon improved practices due to factors such as cost, lack of technical knowledge, cultural resistance, and poor extension services. Moreover, regional assessments of the real-world impact of these practices on productivity and livelihoods are sparse, fragmented, or outdated, making it difficult to guide policy interventions and investment decisions. Several questions arise: To what extent have farmers in South West Nigeria adopted these improved management practices? Are these practices significantly improving productivity, animal health, and income levels as intended? What are the barriers to full adoption and implementation of these innovations?

The lack of empirical data and comprehensive assessment on the effectiveness of these improved practices poses a challenge for policy formulation, program evaluation, and

extension service delivery. Without a clear understanding of what works and what does not, efforts to scale up sustainable livestock development in the region may be undermined. Therefore, a critical assessment is urgently needed to determine the effectiveness of improved management practices on sheep and goat production in South West Nigeria. This study aims to evaluate the extent of adoption, measure the impacts on productivity and income, and identify the barriers and enablers to sustainable implementation. Addressing this knowledge gap is essential for designing evidence-based strategies to enhance the performance and sustainability of small ruminant production in the region.

Theoretical Framework

The theory is based on behavioural change constitute the bedrock of this study. Behavioural changes include favourable changes in the knowledge, skill and attitude of people as a result of their exposure to educational experience (Jibowo, 2000), assess the improved sheep and goats management practices that farmers are aware of in the study area. According to The Central Theory of Adoption, the empowerment of small ruminants' farmers through positive programmes (that has to do with the development and dissemination of improved small ruminants production technologies) will help to overcome the disincentives to positive behavioural changes of the farmers as a result of increased incentive valence. The Central Theory of Adoption provides a foundation for understanding how sheep and goat farmers in Southwest Nigeria respond to improved management practices (IMPs) such as enhanced feeding, breeding, housing, disease control, and record-keeping. Adoption is not merely a one-time act but a process influenced by farmers' socio-economic characteristics, perceptions, and access to information.

MATERIALS AND METHODS

Multistage sampling procedure was employed for the study. The first stage involved the selection of three (3) states (Oyo, Osun and Ekiti) from six (6) states in the South-West. Oyo state has four (4) agricultural zones which are Ibadan/Ibarapa, Oyo, Ogbomoso and Saki with thirty-three (33) local government areas. Osun state has three (3) agricultural zones which are Ife/Ijesha, Iwo and Osogbo with thirty (30) local government areas. Ekiti state has three (3) agricultural zones which are Aramoko, Ikere and Ikole-Ekiti with sixteen (16) local government areas. The second stage involved the selection of two (2) agricultural zones from each of the selected states in the study area totaling six (6) agricultural zones. Based on their rurality, Ibadan/Ibarapa and Ogbomoso zones were purposively selected from the agricultural zones in Oyo, Ife/Ijesha and Iwo agricultural zones were selected from the agricultural zones in Osun while Aramoko and Ikole zones were selected from the agricultural zones in Ekiti. The third stage involved the selection of two (2) local governments from each of the selected six (6) agricultural zones in the study area. The twelve local governments selected were Surulere and Orire (Ogbomoso zone), Akinyele and Ido (Ibadan/Ibarapa), Irewole and Ayedaade (Iwo zone), Ife-South and

Atakunmosa (Ife-Ijesha zone), Igede and Efon (Aramoko zone), Omuo and Ikole (Ikole zone). Two (2) villages were selected in each of the twelve (12) local governments making twenty-four (24) villages altogether. Fifteen (15) respondents were selected from each of the villages making three hundred and sixty (360).

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents

Results in Table 1 show that 14.17 percent of the farmers were between the ages of 21 and 40, 56.94 percent were between the ages of 41 and 60 years, while 28.89 percent of them were between 61 and 80 years. The mean age of the sheep and goats' farmers was 11.10. This analysis shows a higher percentage (71.11%) of the sheep and goats' farmers were less than 60 years of age. They are still in a majority, able bodied, agile young men and women who possessed the physical strength to sustain rigorous and arduous tasks required by farming work that can enhance effectiveness of improved agricultural technologies. Hence, this may likely be a stimulating factor that may arouse farmers' interest and desire for adoption of improved agricultural technologies disseminated to them by the Agricultural Extension Agents. The relatively younger ages of the farmers may also enhance their cooperation with Extension Agents as they may see them as their peers and colleagues. This would therefore improve the level of rapport and cooperative interactions between the farmers and the extension agents, thereby enhancing effective dissemination, communication and adoption, hence effectiveness of improved sheep and goats production technologies. This finding agrees with the results of Oni *et al.* (2022) that the majority of smallholder sheep and goat farmers were adults, with most within the age bracket of 41 to 60 years. These findings collectively highlight that sheep and goat farming in South-West Nigeria is predominantly practiced by individuals aged 41 and 60, with limited involvement from younger demographics and aged farmers. The table also shows that 50.36 percent of the sheep and goats farmers were males, while 46.94 per cent were females. This finding agrees with Okali & Sumberg (2019) and Achoja *et al.*, (2020) that male farmers predominantly engage in sheep and goat farming.

In Table 1, there were 2.5 percent of the sheep and goat farmers noted as single, 2.78 percent were separated, 7.5 percent were widowed, 1.11 were divorced while 86.11 percent were married. These analyses revealed that majority (86.11%) of respondents were married (Table 1). These findings suggest that a significant proportion of sheep and goat farmers in South West Nigeria are married, highlighting the role of small ruminant farming in supporting family livelihoods. This finding is in line with the work of Ajala *et al.* (2016), who reported that the majority of sheep and goat farmers in the South-West region were married. Also, in Table 1 among sheep and goat farmers, 3.33 percent had fewer than 10 household members, 7.78 percent had between 11 and 20 household members, while 12.22 percent had between 21-30 household members (Table 1). The mean household size is 53. The average household size is 11, which implies that having a large household size helps to support small ruminant farming. This result indicates that

58.3 percent of the farmers had between 1 and 10 household size. This is high enough to constitute a stable and reliable internal household labour force for farm work. This however, depends on how many household members join in doing the farmwork. This finding is similar to Yousuf (2024)

who reported that the mean household size of sheep and goats farmers in the South-West and asserted that large family size might be desirable as a source of ready labour for farmwork.

Table 1: Distribution of sheep and goats’ farmers by their Ages, Sex, Marital Status, and Religion
N=360

Characteristics	frequency	Percentage
Age (year)		
21-40	51	14.17
41-60	205	56.94
61-80	104	28.89
Sex		
Male	191	53.06
Female	169	46.94
Marital Status		
Single	9	2.50
Married	310	86.11
Separated	10	2.78
Divorced	4	1.11
Widowed	27	7.50
Flock size		
≤10	12	3.33
11-20	28	7.78
21-30	44	12.22
31-40	36	10.00
41-50	62	17.22
> 50	178	49.45
Household size		
≤10	138	38.33
11-20	210	58.34
21-30	12	3.33

Source: *Field Survey*, (2024).

Awareness of Improved Management Practices among Sheep and Goat Farmers

The level of awareness of improved management practices among sheep and goat farmers in South Western Nigeria reveals a pattern of uneven dissemination and knowledge of various animal husbandry techniques (Table 2). The data illustrates that while some practices enjoy relatively high awareness and experience among farmers, others remain poorly understood or virtually unknown in the region. The most highly ranked and widely known practice is the general routine management, with the weighted mean score of 3.73.

Almost half of the respondents (49.44%) had actual experience with it. This suggests that practices such as feeding, watering, and daily monitoring of livestock are part of traditional knowledge systems already in use, possibly because they are visible and regularly practiced. This aligns with Dauda *et al.*, (2025), who noted that farmers tend to be more familiar with basic husbandry routines that are necessary for the day-to-day survival of animals. The widespread adoption and understanding of routine management practices suggest that these are deeply embedded in the traditional knowledge systems of local

farmers. Unlike more technical or modern management interventions that may require external training or resources, these basic routines are often passed down through generations and are integral to the cultural and practical fabric of livestock keeping communities. High familiarity with these practices implies a strong foundation upon which further improvements and training can be built. Since farmers are already consistent with feeding and daily monitoring, extension programs aiming to introduce more advanced or scientifically informed practices such as improved breeding and vaccination can use this existing base as an entry point. As Dauda *et al.* (2025) noted, farmers are more inclined to adopt what they already perceive as essential to animal survival. Therefore, aligning new interventions with established practices that enhances acceptance and effectiveness, rather than attempting to replace them altogether. Followed by deworming (mean = 3.67) and care of newborns (mean = 3.48) also received high awareness scores, with 46.67% and 38.61% of respondents respectively indicating experience. This indicates a strong awareness of parasite control and early-life care of animals. Chiwawa (2019) emphasized the significance of early-stage management of young ruminants for reducing mortality rates and improving long-term productivity. These findings suggest that where farmers have benefit, they are more likely to be aware of and adopt practices. In contrast, drug selection and administration (mean = 2.16), breeding practices (mean = 2.35), record keeping (mean = 2.42), and heart rate monitoring (mean = 2.40) were among the least known or understood practices. This reflects a gap in technical knowledge and perhaps a lack of training and exposure to veterinary best practices and data-driven livestock management. Other awareness are treatment of common

disease (WMS= 3.05), tagging (WMS= 2.94), care in pregnancy (WMS= 2.88), Castrating (WMS=2.87), disease and pest (WMS=2.79), feeding and compounding of animals feed (WMS=2.78), housing of animal (WMS=2.73), another critical observation is the low awareness of practices such as hoof trimming, vaccination programs, and slaughtering and dressing, with mean scores of 2.70, 2.56, and 2.69 respectively. This suggests that pre- and post-production practices are not well integrated into the typical knowledge base of smallholder farmers. Identification of sick animal (WMS= 2.67), use of local method (WMS=2.63), vaccination (WMS= 2.56), selection of foundation stock (WMS= 2.44), record keeping (WMS= 2.40), breeding (WMS= 2.35) and drug selection and administration (WMS =2.16). Notably, castrating (mean = 2.87) and tagging (mean = 2.94) ranked moderately high, indicating that farmers are becoming more aware of animal identification and population control methods, possibly due to the influence of recent extension campaigns or cooperative activities. Djido *et al.* (2018) reported that tagging and castration are increasingly recognized for improving productivity and herd management when introduced alongside cooperative training schemes. Overall, the findings indicated that although some improved practices are gaining traction, particularly those with immediate practical relevance (like deworming or general care), awareness remains low for more technical, health-based, or record-focused practices. This implies a need for more structured, comprehensive, and context-sensitive extension education strategies. As Okali (2019) argues, bridging this knowledge gap requires tailored extension programs that prioritize farmer-friendly training, demonstration farms, and localized outreach using indigenous languages.

Table 2: Awareness of sheep and goats' farmers about Improved management practices

Statement	Mean score	Rank
General routine management	3.73	1 st
Deworming	3.67	2 nd
Care of new born	3.48	3 rd
Treatment of common diseases	3.05	4 th
Tagging	2.94	5 th
Care in pregnancy	2.88	6 th
Castrating	2.87	7 th
Diseases and pest control	2.79	8 th
Feeding and compounding of animals feed	2.78	9 th
Housing of animal	2.73	10 th
Hoof trimming	2.70	11 th
Slaughtering and dressing of animal	2.69	13 th
Identification of sick animal	2.67	14 th
Use of local method	2.63	15 th
Vaccination program	2.56	16 th
Selection of foundation stock	2.44	17 th
Record keeping	2.42	18 th
Heart rate	2.40	19 th
Drug selection and administration	2.16	21 st

Source: Field Survey, (2024).

Perception of Livestock Farmers towards Sheep and Goats Management Practices

The data presented in Table 3 highlights the diverse perceptions of livestock farmers in Southwestern Nigeria regarding improved management practices (IMPs) for sheep and goats. These perceptions, when analyzed in conjunction with findings from empirical studies, offer critical insights into the acceptability, feasibility, and perceived benefits or barriers related to modern livestock husbandry interventions. A dominant perception from the data is the significant role that capital constraints play in limiting the adoption of improved management practices. The result showed that among the perception statement, inadequate capital is a limiting factor to adopting improved management practices ranked highest with weighted mean score of 4.43 and 96.94% of respondents agreeing or strongly agreeing. This corroborates findings by Chesterman *et al.*, (2019), who reported that most smallholder livestock farmers in Nigeria operate under tight financial constraints, limiting their ability to invest in improved feeding, housing, and veterinary care. Adebayo *et al.* (2020) also emphasized that lack of access to credit and high costs of veterinary services discourage many farmers from upgrading their management systems. This was closely followed by improved management practices help increase out-put, with weighted mean scores of 4.40, suggesting that a majority of respondents (88.34%) recognize the productivity benefits associated with better practices. This aligns with studies by Djido *et al.* (2018) and Dauda *et al.* (2025), who found that farmers who adopted improved housing, feeding, and disease management practices experienced significantly higher growth rates and survival of their small ruminants.

Similarly, the belief that IMPs help reduce the death of animals (mean = 4.24) reflects awareness of improved animal health and welfare benefits, as documented in Adebayo *et al.* (2020) who demonstrated that regular deworming and timely vaccination cut mortality rates by up to 40%. Perceptions about the cost and complexity of IMPs also emerged strongly. Other perception is in the following order: practices are complex (WMS= 4.18), inadequate information hinders farmers from practicing management practices, (WMS= 4.18), the data reflect positive attitudes toward the safety and value-added aspects of IMPs. For instance, 85% agreed that these practices are safe farm practices (WMS= 4.16), and 96.11% acknowledged that IMPs add value to livestock (WMS = 3.59). This finding is consistent with Adefila *et al.*, (2024) who observed that improved practices such as hygienic housing and record-

keeping not only safeguard animal health but also enhance market value due to better quality assurance.

A considerable proportion (95.55%) agreed or strongly agreed that IMPs were too expensive (WMS = 4.14), a concern echoed by Djido *et al.*, (2018) who noted that the cost of concentrate feeds, drugs, and improved housing were prohibitive for resource-poor farmers. Complexity is also cited as a deterrent, with 91.67% of farmers agreeing or strongly agreeing that IMPs are complex (mean = 4.18), which supports Chesterman *et al.* (2019) who identified that poor literacy and technical knowledge among rural farmers hinder proper implementation of new techniques. Moreover, the data reflect positive attitudes toward the safety and value-added aspects of IMPs. For instance, 85% agreed that these practices are safe farm practices (mean = 4.16), and 96.11% acknowledged that IMPs add value to livestock (mean = 3.59). This finding is consistent with Chetsumon *et al.* (2025) who observed that improved practices such as hygienic housing and record-keeping not only safeguard animal health but also enhance market value due to better quality assurance. Adoption of improved practices make my business profitable (WMS= 4.07), practices add value to livestock (WMS= 3.59), improved management were not labour intensive (WMS= 3.56), the perception that information about improved practices is scarce (WMS = 3.54) signals a communication gap. This aligns with Umar *et al.* (2020) who highlighted weak extension services and limited training opportunities as significant barriers to the widespread adoption of IMPs, improved management practices encourage increased out-put (WMS= 3.39). Interestingly, while many acknowledged the productivity benefits, the perception that IMPs reduce labor and stress scored moderately (WMS = 3.28), which may indicate that some components of IMPs still require labor-intensive efforts or that their labor-saving potential is not fully realized or demonstrated on the ground. Only 60.84% disagreed with the statement that improved management, improved Practices are not environmentally friendly (mean = 2.56), suggesting some level of misunderstanding or lack of clarity about the environmental sustainability of these practices. The perception of farmers towards sheep and goat IMPs in Southwest Nigeria is nuanced: while the productivity and safety benefits are largely acknowledged, financial, informational, and technical barriers remain prevalent. Effective extension delivery, tailored training programs, and input subsidies may be required to bridge these perception gaps and facilitate broader adoption, as advocated by Chetsumon *et al.* (2025)

Table 3: Perception of Livestock Farmers towards Sheep and Goats Management Practices
N=360

Statement	Mean score	Rank
Inadequate capital to adopting	4.43	1 st
Practices help to increase out-put	4.40	2 nd
Improved management practices help to reduce death of animal	4.24	3 rd
Improved management practices are complex	4.18	4 th
Inadequate information hinders farmers from practicing management Practices	4.18	4 th
Improved management practices are safe farm practices	4.16	6 th
Too expensive	4.14	7 th
Adoption of improved practices make my business profitable	4.07	8 th
Improved management practices add value to livestock	3.59	9 th
Improved management practices were not labour intensive	3.56	10 th
Information about improved management practices is scares	3.54	11 th
Improved management practices encourage increased out-put	3.33	12 th
Improved management practices results in reduced stress labour	3.28	13 th
Improved management practices are difficult to practice	3.15	14 th
Not environmentally friendly	2.56	15 th

Source: *Field Survey*, (2024).

Effectiveness of Improved Sheep and Goat Management Practices

Table 4 provides valuable insight into the perceived effectiveness of a variety of improved management practices employed by sheep and goat farmers. The data, presented as frequencies and percentages alongside mean scores and ranks, reflect respondents’ experiences with 21 different aspects of livestock management in South Western Nigeria. The practice with the highest mean score (4.26), indicating the highest perceived effectiveness, is housing of animals. This aligns with the findings of Chaudhum *et al.* (2021) who stressed that improved housing contributes significantly to reduced mortality and morbidity in small ruminants, especially during the rainy season when animals are vulnerable to pneumonia and foot rot. Similarly, Chesterman *et al.* (2019) observed that adequate housing improves reproductive performance and reduces parasitic infestation. With over 60% of respondents considering it "very effective," it is clear that housing is a fundamental component of effective small ruminant management.

Closely following is care in pregnancy (mean score = 4.12), ranked second. Pregnant ewes and does require special attention in terms of nutrition and stress reduction, which, according to Adegbite *et al.* (2020), can significantly enhance fetal development and reduce abortion rates. The high rating may reflect increasing awareness among farmers of prenatal care benefits, supported by training and extension outreach. The use of local feed resources is also highly rated (mean = 4.08; rank 3), suggesting that farmers recognize the economic and nutritional advantage of leveraging available forages and agro-industrial by-products. This observation is in line with Adams *et al.* (2015), who found that local feed ingredients like cassava peels and groundnut haulms not only reduce feeding costs but also sustain animal health when properly balanced.

Practices such as deworming (mean = 4.07; rank 4), treatment of common diseases (3.97; rank 5), and care of newborn animals (3.97; rank 5) are also considered effective. These are key preventive and curative health practices and are consistent with the work of Lawal-Adebowale (2012), who emphasized their critical role in enhancing small ruminant survival rates. The high ranking for deworming reflects growing adoption of periodic anthelmintic use, which is crucial in controlling gastrointestinal parasites that impair weight gain and fertility. However, practices such as gestation and delivery management (mean = 3.13; rank 21) and selection of foundation stock (mean = 3.31; rank 20) received lower effectiveness ratings. These lower scores suggest knowledge or skill gaps in genetic selection and obstetric care. Chesterman *et al.* (2019) reported that rural farmers often fail to apply systematic criteria for selecting breeding stock, resulting in inbreeding and poor herd performance. Similarly, Achoja (2020) noted that poor handling during parturition contributes to neonatal mortality. Record keeping (mean = 3.76; rank 9) and identification practices (mean = 3.69; rank 10) rank moderately, although both are foundational for herd monitoring and disease control. Abifarin *et al.* (2015) documented that most smallholder farmers undervalue record keeping despite its role in decision-making and productivity tracking.

Breeding management and vaccination practices have mean scores of 3.68 and 3.63 respectively. This suggests partial understanding or irregular implementation. According to Abifarin *et al.* (2015), inadequate breeding programs and poor vaccine access reduce reproductive efficiency and disease prevention. The moderate effectiveness perception may indicate challenges in accessing genetically improved males or consistent vaccine supply. Practices like castration (mean = 3.46; rank

14), slaughtering and dressing (mean = 3.44; rank 15), and hoof trimming (mean = 3.40; rank 16) received relatively low ratings. These results may be attributed to low awareness or the traditional reliance on local butchers and herders who might not prioritize these procedures. Adebayo *et al.*, (2020) noted that castration is often avoided due to cultural beliefs or fear of complications. One of the lowest-ranked practices is heart rate monitoring (mean = 3.35; rank 19), which, despite being a crucial health diagnostic tool, appears underutilized likely due to the lack of knowledge or necessary tools. This is consistent with Adebayo *et al.* (2020) who found that advanced

animal health monitoring techniques are rarely adopted by small-scale farmers. In summary, this table reveals a pattern where practices directly affecting daily health and visible animal welfare such as housing, feeding, pregnancy care, and deworming are rated most effective, likely due to their observable outcomes. Conversely, practices requiring technical knowledge, tools, or long-term vision like breeding, record keeping, or genetic selection are seen as less effective, possibly reflecting gaps in training, access, or perceived immediate value.

Table 4: Effectiveness of improved sheep and goats’ management practices

Statement	Mean score	Rank
Housing of animal	4.26	1 st
Care in pregnancy	4.12	2 nd
Use of local method	4.08	3 rd
Deworming	4.07	4 th
Treatment of common diseases	4.01	5 th
Care of new born	3.97	5 th
Disease and pest control	3.96	7 th
General routine	3.96	7 th
Record keeping	3.76	9 th
Identification of sick animal	3.69	10 th
Breeding	3.68	11 th
Feeding and compounding of feed animal	3.64	12 th
Vaccination	3.63	13 th
Castrating	3.46	14 th
Slaughtering and dressing of animals	3.44	15 th
Hoof trimming	3.40	16 th
Drug selection and administration	3.40	16 th
Tagging	3.39	18 th
Heart rate	3.35	19 th
Selection of foundation	3.31	20 th
Gestation and delivery	3.13	21 st

Source: *Field Survey*, (2024).

Hypothesis one: Correlation analysis showing the relationship between farmer’s perceptions to improved small ruminants’ management practices and effectiveness of the practices. The summary of the correlation analysis as shown as in Table 5 shows positive and significant relationship between perception and effectiveness of improved managements practices. Perception ($r=0.356$), at 0.05 level of significance. The coefficient of determination (r^2) shows the percentage variation in dependent variable (effectiveness of improved management practices). This implies that, if there’s a

positive and significant relationship between farmers’ perception of improved management practices and their effectiveness, farmers are more likely to adopt and effectively implement those practices. This means that when farmers believe a new practice is beneficial, it’s more likely to be used correctly and achieve the desired outcomes. In essence, a positive and significant relationship between perception and effectiveness creates a self-reinforcing cycle where farmers are more likely to adopt and successfully implement improved management practices, leading to better agricultural outcome.

Table 5: Correlation analysis showing the relationship between farmers’ perception to improved small ruminants’ management practices and effectiveness of the practices.

Variables	Pearson correlation coefficient r	Coefficient of determination r ²	decision	percentage contribution %
Perception	0.356**	0.126736	S	12.6736

**** Significant at 0.01 level of significance.**

S: Significant

CONCLUSION AND RECOMMENDATIONS

The study concludes that the effectiveness of improved small ruminant (sheep and goat) production management practices in Southwestern Nigeria is strongly influenced by a complex interplay of farmers’ socio-economic characteristics, levels of knowledge, perceptions, and access to extension and training services. Based on the findings and conclusion of this study, recommendations are made to enhance the effectiveness of improved sheep and goat management practices in South Western Nigeria that there is a need to strengthen extension services and advisory support for small ruminant farmers. Regular and accessible extension programs that focus on practical demonstrations of improved management techniques should be organized to build farmers' knowledge and confidence in applying these practices.

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