



SDI Review Form 1.5

PART A:

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	MS: 2012/AJEA/1544
Title of the Manuscript:	<i>Prevalence of coat colour phenotypes in West African Dwarf sheep reared by small holder farmers in South Western Nigeria.</i>
Manuscript received on (Date)	
Review comment submitted (Date)	



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PART B: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part and write here 'Corrected'/ if not agreed, give suitable justifications)
General comment:	The authors have studied the coat colors in a large cohort of West African Dwarf sheep. The data on specific phenotype frequencies are of interest to the scientific community. However, there are two major issues with this manuscript. (1) It is essential that representative high quality photos of the different coat color phenotypes are provided. It is not adequate to only describe the coat color phenotypes in the text. (2) The genetic analysis is not appropriate. The authors make far-reaching speculations about the underlying genotypes, which I cannot validate due to the lack of detail in the phenotypic description (photos). Furthermore, the expected frequencies of different phenotypes do not correspond to a "3:1 Mendelian ratio". The phenotype frequencies will primarily depend on the allele frequencies, but these can be anywhere between 0-1. The allele frequency is not influenced by the dominance of an allele!	1. Corrected (Photographs have been included in Fig. 2) 2. See author's comments under Materials and methods
Specific comments:		
Title and abstract	Title ok, abstract far too long	Corrected (Further reviewed to 249 words)
Introduction	The few things that are known about sheep coat color variants should be properly cited. I am missing the paper by Norris & Whan, 2008, who identified the molecular basis for the a-t and A-WT alleles. A more clear distinction should be made between the basic coat color and color patterns. The genetic basis for the (chocolate)-brown coat color should be explained in more detail (TYRP1 gene).	Corrected (Several literatures including Norris & Whan (2008)) have been consulted and additional information required is indicated in red under Introduction and discussion)
Review of literature (Heading may differ in the case of review paper)	= introduction	
Materials & methods (Heading may differ in the	The genetic analysis is insufficient.	Considering the various phenotypes identified with the aid of a published colour



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case of review paper)		chart, the data was summarized and presented in percentages to reflect the prevalence (Fig 1). Further classification into two main categories (Phaeomelanic and eumelanic standard pigmentation) to test with expected Mendelian ratio 3:1 using X^2 was based on information already provided in literature as described under methodology. If this is not sufficient, we are quite opened to further suggestions on additional statistics that could be used to complement the analysis.
Results & discussion (Heading may differ in the case of review paper)	The phenotypes of the animals (photos) must be given. The authors may then try to assign hypothetical genotypes to each phenotype. Figure 1 and 2 are quite redundant. One of these figures should be deleted.	Corrected (Photographs are provided in Fig. 2) Fig.1 represents the prevalence of various coat colour phenotypes in combined sexes. Fig. 2 has been replaced with photographs showing some sheep coat colour patterns.
Conclusion	--	
References	--	