



SDI Review Form 1.6

PART 1:

Journal Name:	<u>American Journal of Experimental Agriculture</u>
Manuscript Number:	2013_AJEA_4929
Title of the Manuscript:	The Relationship between Phenotypic, Testicular Traits and Serum Testosterone Levels in Pre-pubertal Male Boer Goat Crosses
Type of the Article	Research paper

General guideline for Peer Review process is available in this link:

[\(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline\)](http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>ABSTRACT: The use of 3 pairs of brackets depicting values for SC and BW at 6 and 12 weeks is unclear. Suggested revision and perhaps sentence restructuring.</p> <p>INTRODUCTION: Line 58: Suggest revising the use of the term 'phenotypic'. The usage throughout the text seem to be used only when describing external body measurements, while not acknowledging that testicular traits is also considered a phenotype ("phenotypic and testicular traits" implies that external measurements are classed as a phenotype and that testicular traits are not). Perhaps the authors should choose the words more carefully, such as referring to the phenotypical traits of the body and testis. Decide upon terminology and stick to it (e.g. 'body conformation', 'phenotypic traits', etc.). Address this in the title as well. Also see Lines 67, 87, Line 158, etc.</p> <p>MATERIAL AND METHOD Line 76: Please specify the age of the animals classified as 'pre-pubertal', since these are different among breeds. Please define 'crosses', is it cross between high meat production and low meat production? Line 78: From where did the animals originate?</p> <p>RESULTS: Line 135: Is week 0 the first week after quarantine or first week of age? Please specify in materials and methods section the age of animals at</p>	<p>Revision, including the restricting of the sentence was done. Brackets were eliminated.</p> <p>All references to the term "Phenotype" in the text, tables and title have been changed to "body conformation" to make the distinction between external body measurements and testicular trait (scrotal circumference).</p> <p>The issue of age was addressed as follows "The body conformation measurements recorded at 3-week intervals (wk 0-131 d, wk 3- 152 d, wk 6-173 d, week 9- 194 d, and wk 12-215 d of age).... The origin of the animals "singled sourced from a local meat goat producer were used in this study." (wk 0-131 d, wk 3- 152 d, wk 6- 173 d, week 9-194 d, and wk 12-215 d of age)....</p>



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	<p>which 3-weekly measurements commenced.</p> <p>Lines 146-147: Please report the P-value for classifying the TT level as a 'slight increase'. There seems to be large variation in the TT levels, which is why P-values should be reported. This statement also applies to the 'decline' in TT levels at week 6, which seem to be very similar to week 3. It is suggested that the last sentence in Line 149 is placed before the sentence starting in Line 146 to avoid misleading the reader. The authors mention that age and climate may affect TT levels, but make no mention of the age and climate of the animals used in this study. Indeed TT levels rise with sexual development (from ~12 weeks of age) and growth of testis, while declining after reaching a peak (peak at ~18 weeks of age). One should also take into account the seasonal reproductive cycle of these animals and their age. Use reference to time according to the age of animals.</p> <p>Lines 151-152: Please reconsider sentence structure so that the values given in brackets are more clearly defined. Suggest mentioning rainy vs. dry, respectively, before giving values.</p> <p>Line 155: check grammar: use 'decline' instead of "declined"</p> <p>Line 159: check grammar: "...a low to moderate correlations..."</p> <p>Line 136: Please define the use of the term 'masculinity'. Is there a set of measurements referred to or one specific measure? The authors did not specify the measure of this term in their own materials and methods, and should therefore define this measure of [9].</p> <p>Lines 167-168: Reference needed.</p> <p>Lines 173-175: use abbreviations for continuity. This also applies to other terms in text where the abbreviation is not used throughout (e.g. Line 158 for TT levels).</p> <p>Lines 175-176: The last fragment of the sentence does not make sense.</p>	<p>"with a slight increase into week 3 (8.74±11.26ng/ml, $P=0.9$).</p> <p>"It is speculated that the week 9 peak of serum testosterone levels obtained in this study represents the attainment of sexual maturity (puberty) in Boer male crosses" This sentence was relocated.</p> <p>All males in the study were pre-pubertal and were approximately 110.11± 20.1 days old at the start of the study.</p> <p>The sentence was restructured as shown in the revised text. Also, the season in the study location is neither rain nor dry, but winter, spring, summer, and fall. The study period span early spring and midsummer. Animals were in an intensive production system where seasonal variations in climatic conditions are minimal.</p> <p>Both Lines 155 and 159 grammar issues are resolved in the text.</p> <p>Masculinity = (muscle score)</p> <p>Reference "Coulter and Foote (1976)"</p>
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	<p>Possibly referring to another study in young Boer bucks, compared to the study by [12] (or study of adults vs. yong)?</p> <p>Lines 161-162 vs Lines 171-172: SW is slightly negatively correlated (-0.08) with TT levels, which is correlated with SC (0.18). However, SC is positively correlated with SW (0.33). A discussion of why SC, and not TT, is correlated with SW would be interesting, especially since the correlation between SC and SW seems to have been found in other studies as well.</p> <p>Line 184: It is more correct to use 'scrotal circumference' than 'testicular size', since SC is what was measured in this study. The same for Line 215.</p> <p>Lines 185-187: The results indicate that SC is the best measure to use as tool for selecting breeding animals, rather than TT. The authors are right to suggest a combination of measurements, but when considering the practicality of it and the suggestions to breeders, it should be highlighted that SC seems to be the best measure.</p> <p>Lines 199-200: Revise sentence structure. It would also be redundant to state the well-known fact that testosterone plays a role in reproductive functions.</p> <p>Lines 217-220: Revise sentence and its fragmentation.</p>	<p>Abbreviations are now in common use throughout the body of the text.</p> <p>The sentence was revised to reflect changes recommended by this referee.</p> <p>This portion was revised according to suggestions and/or comments of this referee.</p> <p>Done.</p> <p>Done in the text.</p> <p>The sentence was put in there for general readers who are unaware of some basic concepts of male reproductive biology.</p>
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<p>Minor REVISION comments</p>	<p>INTRODUCTION: Line 37: Grammar – ‘meat animals sire’ Line 49: define “linear shape type score” Lines 55-57: Revise sentence structure (especially line 56). MATETERIAL AND METHODS: Lines 88-97: Revise sentence structure, with particular emphasis on the use of commas, semi-colons and brackets. Line 89: what is defined as a ‘standard scale’? (e.g. is it a commercial weighing crate?) Line 99: What is the interval for testicular measurements? Might be useful to state that measurements were taken every 3 weeks for 12 weeks in the ‘Animal Management’ section. Line 105: Correct language for ‘blood drawn via’ would be to ‘collect blood by means of’. Line 112: Please restructure sentence, since here the immunoassay is described as being solid-phase and enzyme-labeled (used as adjectives), rather than these techniques being employed within the immunoassay.</p>	<p>Fourie et al. (2005) did not provide additional definition for “linear shape type score” Done. Done. Changed to MTIAHS500 Sheep and Hog Scale System. Done. Done. Done.</p>
<p>Optional/General comments</p>	<p>INTRODUCTION: Line 18: End list of breeds with an “and” before “Spanish”, and “goats” after “Spanish”. Line 19: ‘indigenous’ rather than ‘common’ goats? Line 21: Grammar - ‘identify’ rather than ‘determine’ ; too many adjectives to describe ‘sires’. MATERIAL AND METHODS Line 107: is -4°C correct? Lines 46 & 39: number format different, please check. Line 39: “10-12 months”; Line 46: “five and seven” & “two and four”; Line 53: “seven to eight months” Line 122: grammar error, “...these intermediate...”</p>	<p>Done. Yes. Done Done</p>



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	Line 127: Report that values given in text is mean +/- SD.	Done
	Line 142: Place in same paragraph as Lines 135&136 for coherent discussion.	Done
	Line 144: check journal format for correctness of "(P=.15)"	Done
	Line 145: suggest placing first set of brackets after 'week 6', rather than placing next to second set of brackets ('week 12'). The authors might reconsider the information given by Table 1 and within the text, because the text seem to repeat the information given in the table.	Done
	REFERENCES: Lines 286-287; 241-242; 243-244: Line spacing revision.	Done
	Referencing format not complete, with some errors in the referencing style. Please see journal referencing style and address these errors accordingly.	Done
	General Comment: The authors presented an interesting study and the scientific content is good. However, the way in which the manuscript was written and presented requires serious attention. Key information that was left out is for instance the age of the animals. Otherwise the authors need to decide upon a set of terminologies and abbreviations, which they should stick to throughout the text. The most serious erroneous use of the term 'phenotypic traits'. Some attention to sentence structure is needed throughout the manuscript, as well as some spelling errors (e.g. body confirmation instead of conformation).	