

Dear Dr. Mohammed Gagaoua,

We would like to thank the positive feedback received. Please find below the response to the reviewer for his minor comments.

As shown in the PCI submission process, we have submitted a revised version in bioRxiv (<https://www.biorxiv.org/content/10.1101/2020.10.22.349985v4>). Moreover, you will find the revised version of the manuscript with the changes highlighted in red in the PCI submission system.

We hope that the manuscript can be considered now acceptable for Peer Community In (PCI) Animal Science.

Yours faithfully,

Manuel Revilla on behalf of all co-authors.

Review by Anonymous reviewer

METHODS | Page 5, Line 146 & Line 148

*Suggest to replace “is” by “was” in sentences “The standard deviation ... each AFS*Group.” And “The objective ...a mechanical problem”*

Response The suggested correction has been made L146 & L148.

METHODS | Page 7, Line 220

In the sentence “The average daily gain...expressed in g/day”, I suggest to put “expressed in g/day” just after “(ADG)” to ease the reading.

Response The suggestion has been included L220.

RESULTS | Page 13

I missed this point in the previous revision (but perhaps asked in the first one, sorry): μ_0 and D statistical models are not indicated in the table S1, but they were submitted to analysis as ABC apparently. Add them in table S1? Or indicate the specific models used

Response The additional table S1 shows the statistical models, including the fixed and random effects, used to estimate the genetic parameters for *ABC*, *BF100*, *LD100*, *ADG* and *FCR*. Clarifications have been added in L227 in the methods section of the manuscript. The phenotypic and genetic correlations were only performed between the developed *ABC* parameter and important swine production traits (*BF100*, *LD100*, *ADG* and *FCR*) due to his potential to be interpreted as a resilience index.

A full descriptive statistics and Pearson's correlation coefficients for parameters μ_0 and D are given in Table 2 and Table 3, respectively.

DISCUSSION | Page 18, Line 392

Replace know by known

Response The modification has been done L392.