Reviewer(s)' Comments to Author:

Reviewer: 2

Major (General or Overall) Comments to the Author. Should be concrete and helpful for revision and may include overall strengths and weaknesses of the scientific merit and research approach. Authors ARE expected to reply to these comments.

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The manuscript has improved with the expanded discussion. However, now the discussion could be condensed a bit, and certain topics could be focused on in certain paragraphs.

AU: yes, we agree, with the prior requests for expansion on some issues, the discussion has become long. We have worked to consolidate and reorganize the discussion.

The new text needs also careful proofreading. Some sentences are very long and could be divided to make reading easier. Typos and other errors exist too. Below I have pointed out some points that require modification, but I leave the authors the responsibility to improve the text to be as clear and accurate as scientific text must be.

AU: Yes, thanks for the opportunity to revise these grammatical, typographic and spelling errors.

Specific comments:

Results and discussion: Did you detect differences in SaM species prevalence between the herds? You discuss this topic but mention nothing about your own observations on this topic.

AU: This is not an objective of this research. In response to the first review, we expanded many areas of the discussion which we believe were unrelated to the scope of this research (e.g., differences between US organic and conventional farms, speculation on mechanisms that might influence strain and species prevalence in organic vs. conventional herds). We plan to address differences in SaM species prevalence between herds in a subsequent manuscript.

Line 135: Better to use here NAS, not CNS, regardless of what is used in the referred papers.

AU: We disagree. We have added some sentences detailing the difference – NAS and CNS are not perfectly synonymous – We think it better to report what was identified in the referenced papers.

Line 139: MALDI – add an I

AU: Added

Line 337: fleurettii – add an i

AU: Added

Lines 401 and 464: SCS or SCC? When talking on general about somatic cell count you should use SCC instead of SCS which you use for the log conversion.

AU: OK - changed

Line 410: estimates were?

AU: Corrected

Lines 417, 426, 552, 853: Supré

AU: Excellent – these 4 and 7 others, we think we found them all – thank you!

Lines 424-425: Why, what way, are comparisons difficult, when the most prevalent species are mainly the same in most studies?

AU: Refined – changed “difficult” to “imperfect” for the reasons listed in the sentence

Line 433: NAS?

AU: Revised

Line 436: mean qSCC greater than of uninfected quarters – add of

AU: Revised

Line 439: Add the second parenthesis ).

AU: added

Line 440: 8 species where the mean milk SCC was significantly higher in infected quarters – is this correct English (where)?

AU: Revised

Line 441: quarters, not controls

AU: Revised

Lines 443-444: the mean qSCC of S. chromogenes, S. haemolyticus, and S. epidermidis – the mean MILK qSCC of QUARTERS INFECTED with S. chromogenes etc.

AU: Revised – you make a good point and surprised you identify this issue only here – truly it should be quarter milk SCC throughout the manuscript – we changed to this starting with defining the abbreviation at line 37 “quarter milk SCC (qmSCC)”

Line 447: We? Our research group in a previous study?

AU: Changed – although most scientific editors have shifted back to accepting the use of personal pronouns in manuscripts.

Line 476: effect or affect? A very long sentence.

AU: Revised

Lines 140, 144, 477: Peña

AU: Changed these and others

Line 478: Better to use NAS regardless of which abbreviation is used in the referred paper.

AU: As previously noted, we disagree. CNS and NAS are not perfectly synonymous.

Lines 479-481: Why not to refer Condas et al. in detail and tell the reader which species were associated with each barn type and were the most prevalent species in tiestall, bedded pack and freestall herds?

AU: We think this is getting too far afield from the focus of this manuscript. Such a detailed description will be discussed in a future manuscript.

Lines 497-499: This sentence is lacking a verb?

AU: Revised

Line 502: Better to use NAS.

AU: CNS better, as previously justified

Line 505: xylosus

AU: Corrected

Line 505: “in their study” not needed

AU: Revised

Lines 505-507: This sentence should be rephrased. A milk sample may include two different NAS species, which may originate both from the udder quarter (=coinfection), one from the udder and the other from the teat canal or teat apex, or both from the teat canal or apex.

AU: Agreed, in the original manuscript Dolder et al. (2017) did not recognize these different combinations. Revised the sentence as direct quote and added subsequent sentence detailing the additional possibilities.

Lines 507-508: What are the positive associations of coinfection? Do you mean reasons leading to coinfection?

AU: In multivariable logistic regression models, Dolder et al. (2017) included infection with other CNS species as a predictor of the outcome IMI caused by a CNS species… thus the odds of IMI with *S. haemolyticus* and S. *xylosus* were positively associated with IMI due to another CNS species (i.e., the presence of some species increased the odds of also having an IMI due to *S. haemolyticus* and *S. xylosus*). We have revised this sentence for clarity.

Lines 509, 706: streak canal, not steak

AU: Corrected

Lines 510-514: This sentence is very long and difficult to understand. What do you exactly mean with “overall variation among US organic herds parallels the variation reported in prior studies”? And “these influences”?

AU: Revised this for clarity – we mean if there is one hypothesis that NASM prevalence and diversity differs on US organic farms compared to conventional farms, the null hypothesis is no difference – further because there is herd variability, such differences would need to account for variation between herds – not an easy observational study to do…

Line 522: than that of

AU: Revised sentences to reduce length and improve grammar

Line 536: The qSCCs mentioned on this line are probably mean qSCCs?

AU: Revised

Line 539: Delete the word control.

AU: Deleted

Line 554: not in italic

AU: Revised

Line 557: Which these – the farms of your study?

AU: Removed these

Line 608: Just “We observed…”

AU: Revised

Line 621: estimates were?

AU: Revised

Line 659: median and mean were

AU: Changed

Line 701: SaM (or NAS), not CNS

AU: CNS from the study – species identified with API strips – definitely not SaM as no *S.* *aureus* in this sample set… maybe OK to say NASM here, and I made that change, here, but again NAS is not perfectly synonymous with CNS, and they reported CNS and one cannot tell from the paper which specific species comprised the CNS group.

Line 956: Investigation – add a v

AU: Corrected