***Have not addressed AU26 (adding city and state information)***

**Table 1**

Is missing a level of organization for the predictors listed (rows are misaligned).

The following rows should all be nested under the row “Farm demographics/lactating cow housing”

Facility type

Predominant breed

Herd size (lactating cows)

Herd size group (lactating cows)

Subjective assessment of air quality (producer)

Subjective assessment of air quality (researcher)

Age of facility (years)

Feed supplemental vit. E and selenium

The following should all be nested under “Lactating bedding management practices”

Lying surface for cows (deeply-bedded vs. not)

If use shavings/sawdust/woodchips for bedding material:

Bedding amendment (e.g., hydrated lime) used on surface

If facility is freestall or tiestall:

The following should all be nested under “Mastitis control and milking hygiene practices”

Clip/flame udder hair

Keep record of clinical mastitis events

Routinely culture mastitic milk

Routinely culture high somatic cell count cows

Ever perform culture of mastitic cows

Use intramammary product at dry-off (OMRI-listed)

Parenteral supplementation with vit. E and selenium

Glove use at milking

Check for clinical mastitis by noticing abnormal cow/abnormal udder and forestripping

Type of milking system used

The following should all be nested under “Farm-level udder hygiene metrics”

Average udder hygiene score

Prop. dirty udders (%; udder hygiene score ≥3)

|  |  |  |  |
| --- | --- | --- | --- |
| Table 1. Predictors offered to multivariable models for each of the 8 different outcomes of interest along with facility type (forced) | | | |
| Predictor | | | Level of parameter, if categorical: |
| Farm demographics/lactating cow housing | | |  |
|  | Facility type | | Bedded pack; Freestall; Tiestall |
|  | Predominant breed | | Holstein; Jersey/Other |
|  | Herd size (lactating cows) | |  |
|  | Herd size group (lactating cows) | | 30-55; 56-69; 70-100 |
|  | Subjective assessment of air quality (producer) | | Excellent; Good; Fair/Poor |
|  | Subjective assessment of air quality (researcher) | | Good; Fair |
|  | Age of facility (years) | |  |
|  | Feed supplemental vit. E and selenium | | Yes; No |
| Lactating bedding management practices | | |  |
|  | Lying surface for cows1 (deeply-bedded vs. not) | | Deeply-bedded stalls or bedded pack; Stalls with bedding on a mattress or concrete surface |
|  | *If use shavings/sawdust/woodchips for bedding material:* | |  |
|  |  | Moisture-content | Kiln-dried; Fresh/raw |
|  | Bedding amendment (e.g., hydrated lime) used on surface | | Yes; No |
|  | *If facility is freestall or tiestall:* | |  |
|  |  | Freq. adding new bedding to stalls (times per week) |  |
|  |  | Freq. scraping stalls (times per week) |  |
|  |  | Depth bedding in stalls (cm) |  |
| Mastitis control and milking hygiene practices | | |  |
|  | Clip/flame udder hair | | Yes; No |
|  | Keep record of clinical mastitis events | | Always; Sometimes/Temp.; Never |
|  | Routinely culture mastitic milk | | Always/Sometimes; Never |
|  | Routinely culture high somatic cell count cows | | Always/Sometimes; Never |
|  | Ever perform culture of mastitic cows | | Yes; Never culture |
|  | Use intramammary product at dry-off (OMRI-listed)2 | | Yes; No |
|  | Parenteral supplementation with vit. E and selenium | | All lactating cows regularly/ Occasionally as needed; No |
|  | Glove use at milking | | All milkers consistently; Inconsistently/No |
|  | Check for clinical mastitis by noticing abnormal cow/abnormal udder and forestripping | | Yes; No |
|  | Type of milking system used3 | | Parlor; Tiestall |
| Farm-level udder hygiene metrics | | |  |
|  | Average udder hygiene score | |  |
|  | Prop. dirty udders (%; udder hygiene score ≥3) | |  |
| 1 If freestall or tiestall, producer asked if used deeply-bedded stalls | | | |
| 2 OMRI: Organic Materials Review Institute | | | |
| 3 One freestall farm used an automated milking system | | | |

**Table 4**

May be appropriate to add a footnote defining OMRI (under Average SCS results) - Organic Materials Review Institute

Avoid page break in the middle of a variable (last level of Herd size group is orphaned on next page, group 30-55)

**Table 5**

May be appropriate to add a footnote defining OMRI (under Average SCS results) - Organic Materials Review Institute

**AU1: "Tiestall" and "freestall" are spelled out several times before they are abbreviated. Please use abbreviations consistently throughout, or clarify why they should not be used in some cases**

Okay, we can abbreviate tiestall with TSt as suggested at first use; as well as BP and FS wherever is appropriate.

**AU7: Is there a relevant version number?**

Microsoft Excel 2019 MSO (Version 2406 Build 16.0.17726.20078) 64-bit

**AU5: Edited to match reference. Please confirm**

Yes, this is correct

**AU8: Tables should be cited in numerical order. Please adjust citations or renumber tables, so that Tables 2 and 3 are cited in order**

This is not referring to a table; it was originally “…described in Table 1 and 4 udder health and production outcomes (BTSCC, avg. SCS, elevSCS, STD 150-day milk)…”

It is referencing Table 1, and then listing the four (4) udder health and production outcomes

**AU34: define freq., prop., and temp.**

We can change these to the full word if one would like, instead of having a one-time special abbreviation. It was only in the interest of initially formatting/fitting the table.

Frequency

Proportion

Temporarily

**AU9: Please define OMRI**

Organic Materials Review Institute

**AU11: Please define. Bulk tank milk?**

Bulk tank milk

**AU10: Can this be rewritten to avoid the slash? Vitamin E and selenium?**

Yes

**AU19: Please spell out "non-ag."**

streptococci bacteria other than Streptococcus agalactiae

**AU12: 2007a or b, or both?**

Barberg et al., 2007b; **then get rid of “alternative organic materials,” after this citation**

**AU14: 2007a or b, or both?**

Barberg et al., 2007b

**AU13: Should this be 601? Or is a digit missing?**

Should be 6,011 (digit missing)

**AU15: 2007a, b, or both?**

Barberg et al., 2007b

**AU16: Please cite page number for the direct quote**

Page 1582

**AU17: 2007a or b, or both?**

Barberg et al., 2007b

**AU18: Add to references**

Godkin, M. A. and K. E. Leslie. 1993. Culture of bulk tank milk as a mastitis screening test: A brief review. Can Vet J 34(10):601-605.

**AU21: Does "this" refer to Lockeck [Lobeck] et al., 2011?**

Yes, “this” is the Lobeck et al., 2011 study

**AU20: Correct as edited, to match reference?**

Yes

**AU22: Please provide in SI units**

0.77 kg

**AU23: Please cite page number for direct quotation**

Page 1090

**AU24: Updated to match reference. Please confirm**

Correct

**AU25: The in-text citation "Progressive Dairy, 2017" is not in the reference list. Please correct the citation, add the reference to the list, or delete the citation**

Should be Progressive Dairy, 2022 (which is in citations list)

**AU32: Reference "Progressive Dairy, 2022" is not cited in the text. Please add an in-text citation or delete the reference.**

See above

**AU6: Per current instructions for authors,supplemental tables and figures should behosted by the authors in a third-party repositoryof their choosing (e.g., FigShare, MendeleyData, Dryad). Please upload supplemental filesto a repository and provide the full URL in theNotes section.**

**AU27: Please add URL**

[**https://zenodo.org/records/12572190**](https://zenodo.org/records/12572190)

**AU29: Please make sure Barberg et al., 2007a and 2007b are both cited in the text**

Yes, both are cited (correctly now)

**AU31: Please add access date (month, day, year)**

March 18, 2024

**AU28: Please confirm all nonstandard abbreviations are included and that definitions are correct. Define BTM, freq., prop., and temp**

See above for BTM, freq., prop., and temp.

I believe it’s important to specify what an “elevated” SCS specifically means, which is done in the Materials and Methods and Abstract when we define these terms. However, I’m not sure if it’s vital to also specify this in this other section (“Nonstandard abbreviations used”).

elevSCS = proportion of cows with a SCS of ≥4.0

newSCS = proportion of cows with a SCS changing from <4.0 to ≥4.0 over the last 2 tests

chronSCS = proportion of cows with a SCS ≥4.0 on the last 2 tests

**AU30: Please add publisher if known**

Proceedings of the Thirty-Fifth Annual Conference. American Association of Bovine Practitioners. September 26-28, 2002. Madison, Wisconsin.

Editor: Robert A. Smith  
Executive Vice President: James A. Jarrett  
Advertising Representative: J. T. O'Brien & Assoc.  
Publisher: Frontier Printers, Inc.