* Is it on ALL aspects of bedded packs? (pink = we have some data/observations on this aspect)
  + general types
  + construction
  + upkeep/maintenance/monitoring
  + hygiene
  + foot and leg health
  + IMI
  + Milk quality metrics
  + production metrics
  + how it fits into grazing systems
  + use of BP material as compost/soil amendment
  + economics of it (cost of labor, machinery, materials, construction)
  + bedding bacteria counts
  + producer satisfaction
* OR is it kind of on environmental mastitis (would need to keep this pretty focused on a certain aspect probably)
  + types of orgs
  + entry into teat
  + how diff bedding materials affect rates of env. mast
    - bedding bacteria counts
  + could have special section on CNS in here?
  + How would any 40 herd data fit into this?
* OR entirely as CNS as an env. pathogen?
  + CNS generally
    - diversity of species overall
    - what species more likely to be found in env
      * 2 huge canadian papers- with BTM and quartermilk
      * **Would have to delineate from species that are cow-adapted? Or skin commensals**
    - sources of CNS in env
      * papers on fecal contam
      * what bedding sources associated with particular CNS species
      * how does bedding material affect CNS counts/risk of CNS IMI
  + could still talk about etiology of env. mastitis generally
    - protective mechanisms of the teat
      * anatomy
        + sphincter, rosette
      * keratin plug
    - ascending infection
    - association between bacteria on TEAT SKIN and IMI risk? This may be entirely too big of an area to get into
      * Sandra’s group has papers relating to this
  + How would any 40 herd data fit into this?

***Random notes/things to consider from reading 11 JDS grad student narrative reviews***

|  |
| --- |
| \*\* don't need to limit to just summarizing "research," can also include anatomy of teat (sphincter, keratin plug) and etiology of environmental mastitis IN LIGHT of looking at IMI in context of bedding material |
| \*\* importance of hierarchical headings, subheadings- ORGANIZATION; summary sentences at the end of each section |
| \*\* importance of choosing a SCOPE of the right size, depth, breadth; clearly stating what it is, why it's important, why I'm writing about it (lots of new research? too much old research? interdisciplinary?) |
| \*\* the most engaging ones tell you WHY they're writing them |
| \*\* most brutal one to read so far was the one that had 3 different topic areas around stall size/material; each of 3 areas had an intro, then questions answered by body of research, and a summary SECTION. came off very dry and repetitive |
| \*\* could have section with challenges on studying housing systems/bedded packs without lot of money? observational, cross-sectional study- getting enough statistical power, big enough N to compare different housing types; challenge with observational studies = confounding covariates |
| \*\* could have section with "opportunities and future directions?" |
| \*\* like in AMS one, could have table comparing metrics of conventional herds vs. bedded pack studies- don't necc. only need to include studies where bedded packs were head-to-head with another system |
| |  | | --- | | … then end section with "further research is warranted on/should focus on/should include/should account for…" | |
| \*\* CONCLUSION: "our narrative review of the literature identified areas that warrant further investigation. our goal was not to generalize the findings presented, but instead to summarize and contextualize the available literature." |
| \*\* can come right out and make recommendations, after digesting body of literature, if well-supported enough |
| \*\* can have a sentence after methodology about what kind of studies you DID find/include: "from our literature search, 13 studies have validated…" |
| \*\* says what's done already, and circumscribes area that is related but not yet described/reviewed |