

Appendix 1: Matson et al., Optimizing Robotic Milking Questionnaire

Farm Number: _____ Date: _____ Person: _____

- | | | |
|-------------|--------------------|-------------------|
| G) Shavings | J) Peat moss | L) Recycled Paper |
| H) Sawdust | K) Recycled manure | M) Cardboard |
| I) Sand | solids | N) Other: _____ |

What is the frequency of manual cleaning/Raking of stalls or pens (1-10+ Times/Day)?

What is the method that the central alley is cleaned?

- A) Automated scraper
- B) Autonomous scraper
- C) Machine (tractor or skid-steer)
- D) Other: _____

How many times per day are the alleys cleaned? _____

What type of ventilation do you use for your lactating animals and what number if applicable?

- A) Panel or Basket Fans: #___
- B) Big Ceiling Fans: #___
- C) Tunnel Ventilation: #___
- D) Natural Ventilation

Do you use a holding pen for your AMS? Y / N

III. Management

Do you organize your animals by pen or other method? If so how?

What is the annual frequency of hoof trimming?

- A) Less than one time
- B) One time
- C) Two times
- D) More than two times
- E) No trimming

How many times per year do you aim to trim each cow?

- A) Specific cows: _____
- B) All others: _____

Do you use a footbath or foot spray for the following (indicate all that apply)?

Type	Lactating Cows
Footbath	
Manual Spraying	
Automatic Spraying	
None	

How often do you use the footbath or spray? _____

Where is the footbath located?

- A) At the exit of the milking parlor or robot
- B) In a passage of free-stall barn
- C) Other location
- D) I don't use footbath
- E) Other, please specify the location: _____

What product(s) do use in your footbath? (% if mixing)

- | | |
|---------------------------------|---------------------------------|
| A) Not applicable – no footbath | G) Thymox _____ |
| B) Copper sulfate _____ | H) DeLaval Double-Action _____ |
| C) Zinc sulfate _____ | I) Heal Max _____ |
| D) Formaldehyde _____ | J) Limestone _____ |
| E) Antibiotic solution _____ | K) Other, please specify: _____ |
| F) Hoof-Sol _____ | |

Alternatively, do you alternate products? (If so explain):

IV. Feeding Management

How many times per day do you deliver feed (PMR at bunk)? _____

How do you deliver feed at feed bunk?

- A) Human driven machine
- B) Robotic (conveyor or automated system)

Who performs the feed push-ups?

- A) Human (manual or with machine)
- B) Robot (e.g. Juno)
- C) I do not do feed push-ups (contained bunk)
- D) Other (Please Specify: _____)

What is the frequency of feed push ups (per day)? _____