Variables from questionnaire used to screen for factors associated with isolation of antimicrobial resistant *Salmonella* at herd-level.

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| Question | Variable Type |
| 1. What was your herd's average number of milking cows? | Continuous |
| 2. What was your herd's rolling herd milk production? (lbs) | Continuous |
| 3. What is the percent distribution of breed(s) in your herd? |  |
|  % Holstein | Continuous |
|  % Jersey | Continuous |
|  % Crossbreed | Continuous |
|  % Other | Continuous |
| 4. How many timer per month do you cull dairy cows (for any reason)? (1 to 4) | Categorical with multiple levels |
| 5. What are the main reasons for culling? |  |
|  Performance (0=No; 1=Yes) | Binomial |
|  Disease (0=No; 1=Yes) | Binomial |
|  Other  | Categorical with multiple levels |
| 6. What percent of your culled dairy cows were sold for beef?  | Continuous |
| 7. Do you feed a special fattening diet to cull dairy cows prior to marketing? (0=No; 1=Yes) | Binomial |
|  If yes: |  |
|  is the special diet TMR? ( 0=No; 1=Yes) | Binomial |
|  is the special diet Pasture? ( 0=No; 1=Yes) | Binomial |
|  is the special diet Other? ( 0=No; 1=Yes) | Binomial |
|  is the special diet None? (0=No; 1=Yes) | Binomial |
| 8. Do you house cull dairy cows prior to marketing in a pen separate from other dairy cows? (0=No; 1=Yes) | Binomial |
| 9. What percent of your herd's carcasses were condemned?  |  |
|  0 | Categorical with multiple levels |
|  < 1 |
|  < 1-3 |
|  < 10 |
| 10. What percent of your herd's cull dairy cows received an injection of any antibiotics within 2 ~ 3 weeks of being sold? |  |
|  0 | Categorical with multiple levels |
|  ≤10 |
|  ≥10 to 20 |
|  30 |
| 11. Who perform medical treatments to sick cows? |  |
|  Veterinarian | Categorical with multiple levels |
|  Dairy Manager |
|  Staff |
|  Other |
| 12. What actions do you take to avoid drug residue violation? |  |
|  Avoid Drug (0=No; Yes) | Binomial |
|  Withdrawal period (0=No; Yes) | Binomial |
|  Testing milk urine (0=No; Yes) | Binomial |
|  Other  | Categorical with multiple levels |
|  None (0=No; Yes) | Binomial |
| 13. How do you keep track of drug withdrawal periods post‑treatment?  |  |
|  Computer (0=No; Yes) | Binomial |
|  Chalk Marks (0=No; Yes) | Binomial |
|  Paper (0=No; Yes) | Binomial |
|  Memory (0=No; Yes) | Binomial |
|  Other | Categorical with multiple levels |
| 14. Do you keep a record of drug names and quantities on your dairy (inventory)? (0=No; Yes) | Binomial |
| 15. If possible, can you name three main antibiotics used on your dairy? |  |
|  Antibiotic 1 | Categorical with multiple levels |
|  Antibiotic 2 | Categorical with multiple levels |
|  Antibiotic 3 | Categorical with multiple levels |
| 16. Are these antibiotics used separately or in a combination when injected to animals? |  |
|  Separately (0=No; Yes) | Binomial |
|  Combined (0=No; Yes) | Binomial |
| 17. Which treatment information do you keep track of?  |  |
|  Date treatment (0=No; Yes) | Binomial |
|  Dose (0=No; Yes) | Binomial |
|  Route (0=No; Yes) | Binomial |
|  Drug expiration date (0=No; Yes) | Binomial |
|  Other (0=No; Yes) | Binomial |
| 18. Are you familiar with extra‑label drug use? (0=No; 1=Yes) | Binomial |
| 19. How many times per month do you use extra‑label veterinary drugs ? | Categorical with multiple levels |
|  Do not use (0=No; Yes) | Binomial |
|  Do not know (0=No; Yes) | Binomial |
| 20. What extra-label drugs are used and why? | Categorical with multiple levels |
| 21. Who is allowed to administer drugs to adult cows?  |  |
|  Herd manager (0=No; Yes) | Binomial |
|  Herdsman (0=No; Yes) | Binomial |
|  Limited Designated (0=No; Yes) | Binomial |
|  Anyone (0=No; Yes) | Binomial |
|  Veterinary (0=No; Yes) | Binomial |
|  Others | Categorical with multiple levels |
| 22. Are the dairy managers and the persons administering drugs knowledgeable or trained about antibiotic resistance? (0=No; Yes) | Binomial |
| 23. Are cows given any vaccines for prevention of enteric diseases *(Salmonella,* *E. coli*, etc.)? (0=No; 1=Yes) | Binomial |