|  |  |  |  |
| --- | --- | --- | --- |
| **Dairy** |  | **Conventional (%)** | **Organic (%)** |
| **Components**  | **Characteristics** | **Cluster C1**  | **Cluster C2**  |  |
| **N =122** | **N = 10** | **N = 16** |
| Herd demography | Region |  |  |  |
|  |  NCAc  | 6.6 | 0.0 | 81.2 |
|  |  NSJVd | 43.4 | 40.0 | 0.0 |
|  |  GSCAe | 50.0 | 60.0 | 18.8 |
|  | Breed |  |  |  |
|  |  Other  | 26.4 | 30.0 | 50.0 |
|  |  Hostein  | 69.4 | 70.0 | 37.5 |
|  |  Jersey  | 4.1 | 0.0 | 12.5 |
|  | Population |  |  |  |
|  |  Herd size (median) | 1,265.0 | 715.0 | 325.0 |
|  |  Rolling herd average (median) | 11,339.8 | 10,092.4 | 8,235.8 |
| Dry-off protocol | Blanketf treatment of all dry cow |  |  |  |
|  |  No | 4.9 | 20.0 | 68.8 |
|  |  Yes | 95.1 | 80.0 | 31.2 |
|  | Antimicrobial used in dry cow treatment  |  |  |  |
|  |  Cephalosporins  | 50.9 | 66.7 | 0.0 |
|  |  Penicillins  | 27.1 | 0.0 | 100.0 |
|  |  Cephalosporins or Penicillins  | 10.5 | 0.0 | 0.0 |
|  |  Penicillins or Aminoglycosides  | 11.4 | 33.3 | 0.0 |
| Disease management | Mastitis: Basis for treatment decision  |  |  |  |
|  |  Findings of abnormal milk  | 34.5 | 100.0 | 40.0 |
|  |  Abnormal milk + Lab testing  | 25.2 | 0.0 | 40.0 |
|  |  Abnormal milk + Lab testing + Treat pending test result  | 40.3 | 0.0 | 20.0 |
|  | Mastitis: Treat with antimicrobial  |  |  |  |
|  |  No | 1.6 | 25.0 | 81.2 |
|  |  Yes | 98.4 | 75.0 | 18.8 |
|  | Metritis: Choice of antimicrobial treatment  |  |  |  |
|  |  Bolus/Injectables  | 75.2 | 100.0 | 50.0 |
|  |  Intrauterine  | 6.8 | 0.0 | 50.0 |
|  |  Intrauterine + Bolus/Injectables  | 17.9 | 0.0 | 0.0 |
|  | Lameness: Choice of antimicrobial treatment  |  |  |  |
|  |  Hoof treatment (antibiotic wrap, heel spray, foot bath)  | 28.4 | 66.7 | 0.0 |
|  |  Bolus/Injectables  | 14.7 | 0.0 | 33.3 |
|  |  Hoof treatment + Bolus/Injectables  | 56.8 | 33.3 | 66.7 |
| Antimicrobial stewardship | How do you track antimicrobial treatments given to cows?  |  |  |  |
|  |  Computer + Othersg | 69.7 | 40.0 | 41.7 |
|  |  No computer | 30.3 | 60.0 | 58.3 |
|  | How you track antimicrobial withdrawal period for treated cows  |  |  |  |
|  |  Computer + Othersg | 66.4 | 22.2 | 37.5 |
|  |  No computer | 33.6 | 77.8 | 62.5 |
|  | Administration of appropriate antimicrobial drug, dose, route, duration |  |  |  |
|  |  Very important  | 97.5 | 80.0 | 76.9 |
|  |  Some importance  | 2.5 | 20.0 | 15.3 |
|  |  Not important  | 0.0 | 0.0 | 7.7 |
|  | Good record keeping on treatment and treatment dates |  |  |  |
|  |  Very important  | 96.7 | 85.7 | 76.9 |
|  |  Some importance  | 3.3 | 14.3 | 15.4 |
|  |  Not important  | 0.0 | 0.0 | 7.7 |
|  | Observing withdrawal periods and drug residue avoidance |  |  |  |
|  |  Very important | 99.2 | 100.0 | 76.9 |
|  |  Some importance | 0.8 | 0.0 | 7.7 |
|  |  Not important  | 0.0 | 0.0 | 15.4 |
| Antimicrobial use on dairies | Used of OTCh and prescription antimicrobial on dairy before 1.1.2018  |  |  |  |
|  |  Both OTC and prescription AMD were used to treat cows | 69.4 | 25.0 | 53.3 |
|  |  Cows were only treated with prescription AMD | 16.5 | 25.0 | 6.7 |
|  |  Cows were only treated with OTC AMD | 1.7 | 25.0 | 6.7 |
|  |  Cows were not treated with OTC AMD | 10.7 | 0.0 | 13.3 |
|  |  Cows were not treated with prescription AMD | 0.8 | 25.0 | 0.0 |
|  |  Cows were neither treated with OTC nor prescription AMD | 0.8 | 0.0 | 20.0 |
|  | Used of OTC and prescription AMD on dairy before 1.1.2018 (dichotomous response)  |  |  |  |
|  |  Cows were treated with OTC AMD | 72.3 | 66.7 | 75.0 |
|  |  Cows were not treated with OTC AMD | 27.7 | 33.3 | 25.0 |
| Producer perceptions of AMD on dairies | Any use of antimicrobial may result in infections more difficult to treat in future |  |  |  |
|  |  Strongly agree / Agree  | 11.6 | 40.0 | 38.5 |
|  |  Neutral  | 30.6 | 20.0 | 23.0 |
|  |  Strongly disagree / Disagree  | 57.9 | 40.0 | 38.5 |