

## Genetic and Phenotypic Characterization of Subclinical Mastitis-Causing Multidrug-Resistant *Staphylococcus aureus*

### General Data

Date:

Address:

Farm name:

Farmer name:

Contact:

E-mail:

### Farm Information

1. Is the property computerized?

2. Type of system:

- Grazing
- Semiconfined
- Confined
- Other

3. Production Model:

- Conventional
- Transition to organic
- Organic

### Herd Information

1. Number of animals

2. Number of lactating cows

3. Number of primiparous lactating cows

4. Number of multiparous lactating cows

5. Number of dry cows

### Reproduction Information

1. Breeding System

- Artificial insemination
- Use of bull
- Transfer of embryos

2. Racial characteristic:

- Purebred
- Crossbred
- 3. Main breed on the farm:
  - Holstein
  - Jersey
  - Crossbreed Holstein X Gyr
  - Others

### Milk Production Information

1. Total milk production (liters/month)

2. Average productivity of cows (liters/cow)

3. Average milk price (R\$/liter)

4. Bonus on the value of milk (R\$/liter)

5. Milk quality in the last month (tank milk):

- Somatic cell count (SCC)
- Total bacterial count in milk (TBC)
- 6. Individual Somatic cell count (SCC)

### Mastitis Information

1. Perform treatment of cases with:

- Clinical Mastitis
- Subclinical Mastitis
- Variable

2. Which medications utilize to treat mastitis:

- Antibiotic tube
- Systemic Antibiotic
- Anti-inflammatory
- Dry cow antibiotic
- Homeopathy
- Others
- 3. Do you do antimicrobial rotation?
- 4. Did you treat subclinical mastitis?
- 5. Value in milk price penalty for high CCS level

### Preventive Measures Information

1. What are the preventive measures used in the property?

- Milking order (infection-free animals first; infected animals last)
  - Pre-dipping
  - Post-dipping
  - Wash dirty teat
  - Wash dirty udder
  - Wash milking liners between milking
  - Wash milking liners end milking
  - Use of separate cloth or paper
  - Clean milking parlor
  - Milking Maintenance

- Gloves
- Dry cow treatment
- Vaccine
- Protocol treatment by veterinary
- Keep cows standing after milking
- Horn fly control program
- Training personnel regularly
- Environmental management (animal population density, floor, bedding, ventilation)
- Others

2. What mastitis control measures are being used on the property:

- Antibigram and culture.
- Somatic cells account (SCC), bacterial total account (BTC), and tank milk composition analysis
- Individual SCC
- California mastitis test (CMT)

3. What mastitis control measures frequency (weekly, biweekly, or monthly)?

### **Milking Routine Information**

1. Describe the milking parlor as to cleanness, type of floor, and cover.
2. How many clusters of liners are used in the milking.
3. Number of milking/day.
4. Number of cows milked Simultaneously.