

## **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:
- Antibioqram 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.