



## QUESTIONNAIRE 2 "Cow Cooling Solutions"

**GENERAL INFORMATION:** please insert an X in applicable boxes

### A. MILKING DATA:

- Number of milking groups .....
- Size of the largest milking group .....
- Milk sessions per day .....
- Hours of starting each milking session .....
- Duration of each milking session (hours).....
- washing cows' udders before milking  YES  NO
- Waiting yard data (in square meters) .....
- Length.....width.....height.....
- Is waiting yard shaded  YES  NO
- If YES, with what material? .....
- What is the largest distance your cows must walk for being milked (in meters)? .....

### B. FEEDING DATA (related to milking cows):

- Do you feed TMR ?  YES  NO
- Times per day feed is distribute to the cows in the summer .....
- Rate of decline in daily DM consumption per cow in the summer (%).....

### C. HOUSING DATA:

- Housing type (Free stall/ loose stall /tie stall)? .....
- Roof height? (low .....high .....) .....
- Barn orientation (South/ North, East / West, other) ? .....
- Water troughs in the milking cattle barn:
  - Number of troughs .....
  - Availability per cow (cm/cow) .....
  - Depth of troughs (cm) .....
- Is your feed line shaded?  YES  NO
- Is the feed line with or without "lockers"? .....

D. SUMMER CONDITIONS

- Temperatures °C (min.... / max ...)
- Rrelative humidity, % (min .... / max .....).

E. COOLING MEANS:

**E1 – Cooling in the waiting yard:**

- Wetting the cows from above in the waiting yard  YES  NO
- Use fans in the waiting yard?  YES  NO

If YES, :

Number of fans .....  
Diameter of fans .....  
Distance between fans (in row ..... and in line .....)

- What is the wind velocity inside the yard (meters/seconds)? .....
- In the event you cool cows in the waiting yard by combining wetting & forced ventilation, what is The duration of the each wetting session? (Seconds) ..... Ventilation session (minutes) .....
- In case you cool the cows in the waiting yard, is it only before milking or also between Milking sessions ? .....  
If between milking, how many times per day? .....  
What is the duration of each cooling treatment? .....

**D2 – Cooling in the feed line:**

- Do you wet your cows in the feed line?  YES  NO
- Do you have fans in the feed line?  YES  NO

If YES, :

Number of fans per line .....  
Diameter of Fans .....  
Distance between fans in the line .....

- What is the wind velocity in the farest post of feed line (meters/seconds)? .....
- In case you do cool cows in the feed line by combining wetting and forced ventilation, what is the duration of the spray periods? (Seconds) ..... Ventilation periods (minutes) .....
- In case you do cool cows in the feed line between milking, how many times per day? .....
- If cooling cows in the feed line, what is the duration of the cooling period? (min) .....

**D3 – Cooling in the rest area:**

- Do you have fans in the rest area?  YES  NO

If YES :

- Number of fans .....
- Diameter of fans .....
- Distance between fans (in row ..... and in line .....)

**E – Prices (in US\$) –**

- Cost of feeding milking cows .....
- Farm Gate milk price .....
- Cost of 1 KW electric power.....
- Day salary of non professional man power.....