**ANNEX-I**

**Questionnaire for Data Collection**

**1.**  a. Name of the farm……………………………………………………………………

 b. Name of the owner/Farmer/Employee………………………………………….

 c. Father’s name………………………………………………………………………

 d. Address:

 Village/Moholla…………… Road no… ………………. House no…………………….. Union………………………….............Upazilla…………….P.O………………………………..District……………………….…………..Phone no/Mobile no………………………………….

**2**. Type of cattle

 a. Indigenous b. Cross-breed

**3.** Name of the cultivated fodder

 a. Napier b. Para c. German d. Other’s e. None

**4.** Husbandry practice

 A .Feeding

 >Type of feed

 a. Only roughage b. only concentrate c. Both roughage & concentrate

 B. Most commonly used roughage

 a. Straw b. Green grass C. Both of them

 C. Pattern of green grass feeding

 a. Year round b. Occasionally c. Not at all

 D. Type of the ration formulation

 a. General ration for all cattle

 b. Specific ration for individual stage of cattle.

 E. Frequency of concentrate supply/day (Kg)

 a. Pregnant cow…………………… b. Milch cow……………………………

 c. Heifer……………………………… d.Calf……………………………………

 e. Bull (if any)…………………………

F. Frequency of straw supply/day (Kg)…………………………….

G. Frequency of green grass supply /day (Kg)………………………………..

H. Pattern of straw supplementation

 a. Only straw b. Straw mixed with molasses c. Both

I. Name of the commonly used feed ingredients:

Straw/Green grass/Rice polish/wheat/Wheat bran/Moshure/Kheshari/Soybean meal/Broken rice/Broken maize/Mustered oil cake/mug powder/White pea husk.

**5.** Source of water

 a. Deep tube well b. Pond

**6.** System of water storage

 a. Water tank b. water house

**7.** Frequency of water supply

 a. Addlibitum b. Insufficient

**8**. Water hygiene: Satisfactory/ Moderate/ Unsatisfactory

**9**. How many times feed supply

 a. Single b. Twice c. Thrice d. More than these

**10**. Name of supplementary feed………………………..

 a. Colostrum feeding: Yes/No

**11**. Housing

 a. Face-in b. Face-out c. Mixed d. Others

**12**. Dimension of the House (specially the main shed)

 a. North-south b. East-west c. None of them

**13**. Number of shed…………………………

**14.** Types of specific sheds in the farm

 a. Only single shed farm b. Milch cow shed c. Maternity shed.

 d. Heifer shed e. Calf shed f. Isolation shed g. Bull shed

**15**. Heat detection status:

 a. Early in the morning b. Deep/Late night c. Afternoon d. Other time

**16**. Practiced breeding method

 a. AI practiced b. Both AI+NI

**17**. Type of manger

 a. Single manger for individual cow/calf

 b. Single manger for two or more cow/calf

**18**. Drainage facility

 a. Sufficient b. Insufficient

**19**. Floor made of concrete/Plastered/Herring boned/Kancha floor.

**20**. Ventilation: Sufficient/Insufficient

**21.** Have electric fan: Yes/No

**22**. Most common diseases prevalence in the farm:

 Mastitis/Milk fever/Kitosis/ Pneumonia/Calf scour/Ascariosis

**23**. Preventive measure

 a. Deworming b. FMD vaccination c. Anthrax vaccination

**24.** Management of disease condition:

 a. Self management b. Quack c. Veterinary doctor

**25**. Agent use for udder cleanliness

 a. Fresh water b. Povisep c. Savlone d. Others agent e. None

**26**. Calving interval

 a. 365-386 day b. 387-407 day c. 408-428 day d. 429-449 day e. 450-470 day

**27.** Type of milking

 a. Hand milking b. Hand + Machine milking

**28**. Record keeping status

 a. Minimum AI b. AI + Milk production c. Record not at all

**29.** Use any disinfectant for cleaning &washing: Yes/No

**30.** Name of the stimulating agent for milking: Mastered oil/other agent/None

**31**. Use the agent for udder cleanliness

 a. Fresh water b. povisep c. Savlon d. Other agent e. None

**32.** Feature of Veterinary doctor calling

 a. Actively b. Occasional c. In critical situation d. Not at all.

**33.** Feature of manpower ratio: Sufficient/Insufficient

Name of the interviewee……………………… Name of the interviewer…………….

Date………………………….. Date…………………………..

Signature……………………………… Signature………………………………

**ANNEX-II**

**Selected 30 dairy farms in Chittagong Sub- urban Area for the study.**

|  |  |  |
| --- | --- | --- |
| **Name of the farm** | **Address** | **Farm code** |
| Model Dairy Farm | Sikalbaha, Chittagong | F-1 |
| Jane alam Dairy Farm | Sikalbaha, Chittagong | F-2 |
| Haque Dairy farm | Sikalbaha, Chittagong | F-3 |
| Jahed Dairy Farm | Sikolbaha, Chittagong | F-4 |
| Dider Dairy Farm | Sikalbaha, Chittagong | F-5 |
| Bondhon Dairy Farm | Sikalbaha, Chittagong | F-6 |
| Rajjak Dairy Farm | Char Lakshya, Chittagong | F-7 |
| Najer Dary Farm | Char Lakshya, Chittagong | F-8 |
| Tanha Dairy Farm | Char Lakshya, Chittagong | F-9 |
| Delowar Dairy Farm | Char Lakshya, Chittagong | F-10 |
| Mohiuddin Dairy Farm | Char Lakshya, Chittagong | F-11 |
| Shorif Dairy Farm | Char Lakshya, Chittagong | F-12 |
| Daige Dairy Farm | Julda, Chittagong | F-13 |
| Sadia Dairy Farm | Julda, Chittagong | F-14 |
| Rijia Dairy Farm | Julda, Chittagong | F-15 |
| Afser Dairy Farm | Julda, Chittagong | F-16 |
| Dewan Dairy Farm | Julda, Chittagong | F-17 |
| Jesmin Dairy Farm | Julda, Chittagong | F-18 |
| Idris Dairy Farm | Char Patharghata, Chittagong | F-19 |
| Yasin Dairy Farm | Char Patharghata, Chittagong | F-20 |
| Ma Dairy Farm | Char Patharghata, Chittagong | F-21 |
| Bokul Dairy Farm | Char Patharghata, Chittagong | F-22 |
| Kasem Dairy Farm | Char Patharghata, Chittagong | F-23 |
| Bosir Dairy Farm | Char Patharghata, Chittagong | F-24 |
| Azad Dairy Farm | Kolagaon, Chittagong | F-25 |
| Azmir Dairy Farm | Kolagaon, Chittagong | F-26 |
| Bissas Dairy Farm | Kolagaon, Chittagong | F-27 |
| Saiful Dairy Farm | Kolagaon, Chittagong | F-28 |
| Najrul Dairy Farm | Kolagaon, Chittagong | F-29 |
| Sabina Dairy Farm | Kolagaon, Chittagong | F-30 |

**ANNEX-III**

**Productive and reproductive performances of dairy cows in Selected Farm.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Farm ID | Dry period (days) | Calving interval (days) | Service per conception | Calving to first service (days) |
| Cb | Id | Cb | Id | Cb | Id | Cb | Id |
| F-1 | 98 | 138 | 410 | 430 | 2 | 2 | 118 | 137 |
| F-2 | 96 | 140 | 419 | 426 | 4 | 2 | 100 | 130 |
| F-3 | 102 | 148 | 429 | 404 | 3 | 1 | 128 | 144 |
| F-4 | 80 | 133 | 428 | 451 | 3 | 2 | 140 | 135 |
| F-5 | 95 | 146 | 420 | 410 | 2 | 2 | 95 | 140 |
| F-6 | 107 | 130 | 430 | 438 | 4 | 3 | 110 | 128 |
| F-7 | 87 | 149 | 410 | 450 | 3 | 2 | 115 | 132 |
| F-8 | 99 | 144 | 428 | 430 | 3 | 2 | 123 | 133 |
| F-9 | 98 | 142 | 422 | 410 | 2 | 2 | 128 | 130 |
| F-10 | 95 | 145 | 418 | 440 | 4 | 3 | 120 | 137 |
| F-11 | 92 | 130 | 430 | 450 | 2 | 1 | 118 | 139 |
| F-12 | 90 | 149 | 411 | 431 | 3 | 2 | 116 | 141 |
| F-13 | 100 | 140 | 415 | 433 | 4 | 2 | 114 | 135 |
| F-14 | 86 | 142 | 411 | 447 | 4 | 2 | 138 | 144 |
| F-15 | 111 | 132 | 423 | 417 | 3 | 2 | 99 | 141 |
| F-16 | 115 | 137 | 417 | 435 | 2 | 2 | 110 | 132 |
| F-17 | 108 | 146 | 425 | 423 | 2 | 3 | 129 | 134 |
| F-18 | 82 | 140 | 415 | 415 | 4 | 3 | 131 | 137 |
| F-19 | 87 | 133 | 417 | 438 | 3 | 2 | 137 | 142 |
| F-20 | 95 | 144 | 423 | 435 | 2 | 2 | 121 | 133 |
| F-21 | 98 | 139 | 419 | 433 | 4 | 2 | 105 | 135 |
| F-22 | 97 | 139 | 421 | 444 | 2 | 3 | 112 | 137 |
| F-23 | 99 | 132 | 429 | 435 | 3 | 3 | 132 | 133 |
| F-24 | 105 | 135 | 411 | 450 | 4 | 1 | 133 | 143 |
| F-25 | 103 | 145 | 416 | 449 | 3 | 3 | 115 | 140 |
| F-26 | 84 | 147 | 424 | 432 | 4 | 3 | 118 | 137 |
| F-27 | 81 | 133 | 429 | 430 | 2 | 1 | 116 | 132 |
| F-28 | 88 | 134 | 411 | 411 | 2 | 3 | 118 | 137 |
| F-29 | 103 | 146 | 418 | 417 | 3 | 2 | 134 | 135 |
| F-30 | 98 | 145 | 411 | 445 | 3 | 1 | 116 | 139 |

Here,

 Cb= Crossbred cow.

 Id=Indigenous cow.

**Productive and reproductive performances of dairy cows in Selected Farm.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Farm ID | Highest milk production (Lt/d) | Lowest milk production (Lt/d) | Milk yield (Lt/lactation) | Lactation period (days) |
| Cb | Id | Cb | Id | Cb | Id | Cb | Id |
| F-1 | 10 | 2 | 3 | 0.5 | 1210 | 358 | 283 | 207 |
| F-2 | 12 | 3 | 3.5 | 0.6 | 1250 | 385 | 297 | 220 |
| F-3 | 11 | 2 | 2 | 0.7 | 1200 | 330 | 268 | 194 |
| F-4 | 8 | 1.5 | 3 | 0.7 | 1152 | 350 | 290 | 200 |
| F-5 | 10 | 3 | 2 | 0.7 | 1180 | 358 | 285 | 210 |
| F-6 | 9 | 3 | 2 | 0.6 | 1180 | 360 | 280 | 215 |
| F-7 | 11 | 2 | 3 | 0.8 | 1250 | 360 | 280 | 215 |
| F-8 | 12 | 2.5 | 3 | 0.8 | 1190 | 370 | 285 | 200 |
| F-9 | 10 | 2 | 2.5 | 0.6 | 1240 | 350 | 286 | 210 |
| F-10 | 8 | 2 | 3 | 0.9 | 1250 | 340 | 286 | 205 |
| F-11 | 12 | 3 | 3 | 0.8 | 1170 | 380 | 285 | 205 |
| F-12 | 11 | 3 | 2.5 | 0.6 | 1230 | 340 | 288 | 210 |
| F-13 | 9 | 2 | 3 | 0.6 | 1180 | 340 | 288 | 220 |
| F-14 | 10 | 2.5 | 3 | 0.7 | 1230 | 380 | 287 | 215 |
| F-15 | 10 | 2.5 | 2.5 | 0.7 | 1200 | 380 | 270 | 215 |
| F-16 | 10 | 1.5 | 3 | 0.6 | 1230 | 340 | 280 | 210 |
| F-17 | 12 | 2 | 3.5 | 0.6 | 1230 | 340 | 298 | 205 |
| F-18 | 11 | 2 | 3 | 0.9 | 1190 | 360 | 285 | 205 |
| F-19 | 9 | 3 | 3 | 0.9 | 1160 | 350 | 280 | 210 |
| F-20 | 11 | 3 | 2.5 | 0.8 | 1180 | 360 | 285 | 205 |
| F-21 | 8 | 1.5 | 3 | 0.7 | 1200 | 360 | 290 | 207 |
| F-22 | 9 | 2 | 3 | 0.7 | 1210 | 370 | 285 | 207 |
| F-23 | 9 | 2 | 2.5 | 0.8 | 1200 | 370 | 290 | 210 |
| F-24 | 10 | 3 | 3 | 0.8 | 1200 | 340 | 285 | 205 |
| F-25 | 12 | 2 | 3 | 0.7 | 1210 | 340 | 285 | 210 |
| F-26 | 8 | 1.5 | 2.5 | 0.9 | 1210 | 360 | 290 | 210 |
| F-27 | 11 | 2 | 3 | 0.8 | 1210 | 360 | 285 | 205 |
| F-28 | 10 | 2 | 3 | 0.7 | 1210 | 360 | 285 | 205 |
| F-29 | 10 | 3 | 2.5 | 0.7 | 1200 | 340 | 290 | 207 |
| F-30 | 11 | 2 | 3 | 0.7 | 1190 | 340 | 287 | 207 |

Here,

 Cb= Crossbred cow.

 Id=Indigenous cow.