ANNEX-I

Data collection sheet for Prevalence, Risk factors and Treatment Assessment of Ruminal Acidosis in cattle & goat

**A. General information**

**Name of the owner:** ……………………………………………………………………………..

**Address:** ………………………………………………………………………………………....

**Species:** …………………….. **Breed:** …………………… **Sex:** Male/Female

**Age:** ……………………………………… **Body weight:** …………………………… Kg

**Duration of illness:** ……………Hours **Feeding history:** …………………………….

**B. Clinical signs**

**Temperature:** ……………………$℉$ **Feeding habit:** Inappetance/ Anorexia

**Dehydration:** Mild/Moderate/ Severe **Diarrhoea:** Present/Absent

 **Urination:** Present/Absent  **Abdomen size:** Normal/ Distended

**Nasal discharge:** Present/Absent **Lameness:** Present/Absent

**C. Clinical Examination**

**Rumen motility (Times/ 5 minutes):** …… **Rumen microflora movement:** Present/Absent

**Rumen pH:** …………… **Blood pH:** ……………… **Blood Ca2+**: …………………… mg /dl

**D. Treatment given**

**1.**

**2.**

**3.**

**4.**

**5.**

**6.**

**7.**

**E. Response to treatment**

**Improvement (within):** ……………days **Recovery (within):** ………………..…. days.

ANNEX-II

**Fig. :** Shows the points of research (Upazila Veterinary Hospital (UVH), Kaligonj-Gazipur and Shadul Alam Quadery Teaching Veterinary Hospital (SAQTVH), Chittagong Veterinary and Animal Sciences University, Chittagong.

ANNEX-III

**Table:** **Data of cattle affected with ruminal acidosis**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Case No.** | **c-1** | **c-2** | **c-3** | **c-4** | **c-5** | **c-6** | **c-7** | **c-8** |
| **Breed**  | ND | ND | HF cross | HF cross | HF cross | HF cross | HF cross | ND |
| **Sex** | Male | Male | Male | Male | Female | Female | Female | Male |
| **Age (years)** | 3 | 2.5 | 1.5 | 3 | 2.5 | 2 | 3 | 1.5 |
| **Body weight(Kg)** | 120 | 100 | 130 | 160 | 150 | 160 | 140 | 110 |
| **BCS (Scale-5)** | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 4 |
| **Temprature(oF)** | 100 | 102.3 | 100.2 | 101 | 103 | 100.5 | 99.5 | 102 |
| **Duration of illness (Hours)** | 24 | 14 | 30 | 15 | 20 | 28 | 48 | 12 |
| **Feeding History** | Rice | Rice | Jackfruit | Bread | Palm | Rice | Potato | Rice |
| **Feeding habbit** | Off fed | Off fed | Anorexia | Off fed | Off fed | Anorexia | Anorexia | Off fed |
| **Dehydration**  | Mild | Mild | Moderate | Mild | Mild | Moderate | Severe | Mild |
| **Diarrhoea** | Yes | Yes | Yes | No | No | Yes | Yes | No |
| **Urination** | No | No | No | No | Yes | Yes | Yes | No |
| **Abdomen size**  | Norm- al | Disten- ded | Normal | Normal | Distended | Normal | Normal | Normal |
| **Nasal discharge** | No | Yes | No | Yes | No | No | No | Yes |
| **Lameness** | No | No | No | No | No | No | Yes | No |
| **Rumen motility (times per 5 minutes)** | 1 | 4 | 0 | 5 | 4 | 5 | 7 | 0 |
| **Rumen microflora movement** | No | No | Yes | No | No | No | No | No |
| **Rumen fluid pH** | 5.2 | 4.5 | 5.8 | 4.6 | 4.8 | 5 | 6 | 4.2 |
| **Blood pH** | 7.1 | 7.4 | 7 | 7.4 | 7.2 | 7 | 6.8 | 7.4 |
| **Treatment Strategy** | S+R | R+P | R | S+R | S+R | S | R | S+R |
|  **Improvement (within Days)** | 6 | 7 | 6 | 4 | 2 | 1.5 | 2 | 2 |

**Note:** Here**, ND**= Non descriptive, **HF cross =** Holstein Friesian cross breed cattle, **R =** Ruminal Alkalizer, **S =** Systemic Alkalizer, **R+P =** Both Ruminal Alkalizer and Purgative, **S+R =** Both Systemic and Ruminal alkalizer.

ANNEX-IV

**Table:** **Data of goats affected with ruminal acidosis**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Case No.** | **g-1** | **g-2** | **g-3** | **g-4** | **g-5** | **g-6** | **g-7** | **g-8** |
| **Breed** | BBG | BBG | JP | BBG | JP | JP | BBG | BBG |
| **Sex** | Female | Male | Female | Male | Female | Male | Female | Male |
| **Age (Months)** | 12 | 24 | 16 | 18 | 24 | 18 | 15 | 18 |
| **Body weight(Kg)** | 13 | 15 | 14 | 20 | 15 | 25 | 12 | 16 |
| **BCS (Scale-5)** | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 4 |
| **Temprature (oF)** | 103.5 | 102.3 | 101 | 103.5 | 103 | 102.8 | 105 | 103 |
| **Duration of illness (Hours)** | 48 | 72 | 40 | 16 | 24 | 17 | 32 | 21 |
| **Feeding History** | Rice | Rice gruel | Rice | Bread | Rice | Rice | Rice gruel | Rice |
| **Feeding habbit** | Anorexia | Anore-xia | Anorexia | Off fed | Off fed | Off fed | Anorexia | Off fed |
| **Dehydration** | Moderate | Severe | Moderate | Mild | Moderate | Moderate | Moderate | Mild |
| **Diarrhoea** | Yes | Yes | Yes | No | No | No | Yes | No |
| **Urination** | Yes | Yes | Yes | No | No | No | No | Yes |
| **Abdomen size** | Normal | Norma-l | Normal | Distended | Distende-d | Normal | Normal | Norm-al |
| **Nasal discharge** | No | No | No | No | No | Yes | No | No |
| **Lameness** | No | No | No | No | No | No | No | No |
| **Rumen motility (Times per 5 minutes)** | 7 | 5 | 7 | 3 | 2 | 1 | 4 | 3 |
| **Rumen microflora movement** | Yes | No | No | No | No | No | Yes | No |
| **Rumen fluid pH** | 5.5 | 5.8 | 5.2 | 4.2 | 4.5 | 4 | 5 | 5 |
| **Blood pH** | 6.8 | 7 | 7.2 | 7.4 | 7.3 | 7.4 | 7.1 | 7.2 |
| **Blood calcium (mg/dl)** | 7.65 | 11.32 | 8.13 | 10.02 | 9.27 | 7.89 | 9.83 | 8.67 |
| **Treatment Strategy** | S+R | R+P | R | S+R | S+R | S | R | S+R |
| **Improvement (within Days)** | 7 | 8 | 8 | 4 | 1.5 | 2 | 1.5 | 2 |

**Note:** Here, **BBG =** Black Bengal Goat, **JP =** Jamunapari Goat, **R =** Ruminal Alkalizer, **S =** Systemic Alkalizer, **R+P =** Both Ruminal Alkalizer and Purgative and **S+R =** Both Systemic and Ruminal alkalizer.