**CHAPTER IV**

**RESULTS**

**4.1 Prevalence of diseases and disorders in livestock**

A total of 252 animals including 131 cattle and 121 goats were available during the study period at upazilla veterinary hospital, Feni Sadar Upazilla from May to July, 2013.

**Table:1: Overall prevalence of diseases and disorders in livestock**

|  |  |  |
| --- | --- | --- |
| **Species** | **No of cases** | **Percentage** |
| Cattle | 131 | 51.98 |
| Goat | 121 | 48.12 |
| Total no of cases | 252 | 100 |

**4.2.1 Prevalence of diseases and disorders in cattle**

In total 26 diseases or disorders were recorded in one hundred thirty one (131) cattle, brought to the Veterinary Hospital for treatment purposes during the study period. Among the 131 cases higher prevalence was recorded as fascioliasis 27 (21.37 %) followed by tick infestation 14 (10,69%),mastitis 6 (4.58 %),scabies 5 ( 3.82%), anaplasmosis 4(3.05%) and so on where lower is milk fever 1(0.76%).

**Table:2: Prevalence of diseases and disorders in cattle**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl no** | **Disease and disorders** | **Total no of cases** | **Percentage** | **Mean ± SE** |
| 1 | Ascariasis | 4 | 3.05 | 3.053±1.509 |
| 2 | Fascioliasis | 28 | 21.37 | 21.37±3.595 |
| 3 | Fever | 4 | 6.87 | 6.87±2.21 |
| 4 | Foot and mouth disease | 3 | 2.29 | 2.29±1.31 |
| 5 | Foot rot | 3 | 2.29 | 2.29±1.31 |
| 6 | Hookworm | 4 | 3.05 | 3.05±1.059 |
| 7 | Mastitis | 6 | 4.58 | 4.58±1.83 |
| 8 | Naval ill | 2 | 1.53 | 1.526±1.075 |
| 9 | Papillomatosis | 4 | 3.05 | 3.053±1.509 |
| **Sl no** | **Disease and disorders** | **Total no of cases** | **Percentage** | **Mean ± SE** |
| 10 | Paramphistomiasis | 6 | 4.58 | 4.58±1.83 |
| 11 | Polyarthritis | 3 | 2.29 | 2.29±1.31 |
| 12 | Coccidiosis | 2 | 1.53 | 1.526±1.075 |
| 13 | Repeat breeding | 2 | 1.53 | 1.526±1.075 |
| 14 | Scabies | 5 | 3.82 | 3.816±1.68 |
| 15 | Tick infestation | 14 | 10.69 | 1.68±2.709 |
| 16 | Anaplasmosis | 4 | 3.05 | 3.053±1.509 |
| 17 | Anaestrus | 3 | 2.29 | 2.29±1.31 |
| 18 | Black Quarter | 2 | 1.53 | 1.526±1.075 |
| 19 | Cow pox | 2 | 1.53 | 1.526±1.075 |
| 20 | Castration | 3 | 2.29 | 2.29±1.31 |
| 21 | Acidosis | 4 | 3.05 | 3.05±1.509 |
| 22 | Milk fever | 1 | 0.76 | 0.76±0.76 |
| 23 | Surgical intervention | 10 | 7.63 | 7.63±2.32 |
| 24 | Aspiration Pneumonia | 3 | 2.29 | 2.29±1.31 |
| 25 | Myiasis | 2 | 1.53 | 1.526±1.075 |
| 26 | Others | 2 | 1.53 | 1.526±1.075 |
|  | Total cases | 131 | 100 |  |

**4.2.2 Sex wise prevalence of diseases and disorders in cattle**

The comparative clinical prevalence of disease and disorders of male and female cattle were presented in Table- 2 and revealed that males (54.12%) were more susceptible than female (45.8%). Tick infestation 6(8.45%) was prevalent followed by foot rot 3(4.23%) in male whereas mastitis 6(10) and reproductive diseases such as repeat breeding 2(3.33%) was prevalent in female. Prevalence of fascioliasis was more or less same in both male and female, 13(18.31%) and 15(25%) respectively.

**Table:3: Overall disease prevalence of cattle according to sex**

|  |  |  |
| --- | --- | --- |
| **Sex** |  **Total no of cases** | **Percentage** |
| Male | 71 | 54.12 |
| Female | 60 | 45.80 |

**Table: 4: Detailed disease prevalence of cattle according to sex**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl no** | **Disease or disorders** | **Male** | **Percentage**  | **Female** | **Percentage** |
| 1 | Ascariasis | 4 | 5.63 | - | - |
| 2 | Fascioliasis | 13 | 18.31 | 15 | 25 |
| 3 | Fever | 5 | 7.04 | 4 | 6.67 |
| 4 | Foot and mouth disease | 1 | 1.41 | 2 | 3.33 |
| 5 | Foot rot | 3 | 4.23 | - | - |
| 6 | Hookworm | 3 | 4.23 | 1 | 1.67 |
| 7 | Mastitis | - | - | 6 | 10 |
| 8 | Naval ill | 2 | 2.82 | - | - |
| 9 | Papillomatosis | 1 | 1.41 | 3 | 5 |
| 10 | Paramphistomiasis | 3 | 4.23 | 3 | 5 |
| 11 | Polyarthritis | 2 | 2.82 | 1 | 1.67 |
| 12 | Coccidiosis | 1 | 1.41 | 1 | 1.67 |
| 13 | Repeat breeding | - | - | 2 | 3.33 |
| 14 | Scabies | - | - | 5 | 8.33 |
| 15 | Tick infestation | 6 | 8.45 | 8 | 13.33 |
| 16 | Anaplasmosis | 4 | 5.63 | - | - |
| 17 | Anestrus | - | - | 3 | 5 |
| 18 | Black Quarter | 2 | 2.82 | - | - |
| 19 | Cow pox | - | - | 2 | 3.33 |
| 20 | Castration | 3 | 4.23 | - | - |
| 21 | Acidosis | 3 | 4.23 | 1 | 1.67 |
| 22 |  Milk fever  | - | - | 1 | 1.67 |
| 23 | Surgical intervention | 9 | 12.68 | 1 | 1.67 |
| 24 | Others | 2 | 2.82 | 1 | 1.67 |
| 25 | Myiasis | 2 | 2.82 | - | - |
| 26 | Pneumonia | 2 | 2.82 | - | - |
| Total  | 71 | 100 | 60 | 100 |

**Graph 1: Disease prevalence of cattle according to sex**

**4.2.3 Prevalence of diseases and disorders in different age groups of cattle**

It was revealed that middle aged cattle (6 months- 2 years) were frequently affected with different diseases (60.3%) than older (27.57%) and younger cattle (12.2%). Fascioliasis was most prevalent 20(25.25%) followed by tick infestation 11(13.92%), paramphistomiasis 4(5.06%) and black quarter 2(2.53%) in middle aged cattle, whereas calves (below 6 months) were most susceptible to ascariasis 4 (25%) followed by naval ill 2(12.5%).

**Table :5: Overall disease prevalence of cattle according to age**

|  |  |  |
| --- | --- | --- |
| **Age**  | **Total no of cases** | **Percentage** |
| Calves (<6 months) | 16 | 12.21 |
| Middle aged (6 months – 2 years) | 79 | 60.3 |
| Adult (> 2 years) | 36 | 27.48 |

**Table: 6: Detailed disease prevalence of cattle according to age**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **SL no** | **Disease or disorders** | **Calves (< 6 months)** | **Percentage** | **Middle aged (6 months – 2 years)** | **percentage** | **Adult** **( >2 years)** | **percentage** |
| 1 | Ascariasis | 4 | 25 | - | - | - | - |
| 2 | Fascioliasis | 1 | 6.25 | 20 | 25.32 | 7 | 19.44 |
| 3 | Fever | 3 | 18.75 | 5 | 6.33 | 1 | 2.78 |
| 4 | Foot and mouth disease | - | - | 1 | 1.27 | 2 | 5.56 |
| 5 | Foot rot | 1 | 6.25 | 2 | 2.53 | - | - |
| 6 | Hookworm | - | - | 2 | 2.53 | 1 | 2.78 |
| 7 | Mastitis | - |  | 2 | 2.53 | - | - |
| 8 | Naval ill | 2 | 12.5 | - | - | - | - |
| 9 | Papillomatosis | - | - | - | - | 2 | 5.56 |
| 10 | Paramphistomiasis | - | - | 4 | 5.06 | 2 | 5.56 |
| 11 | Polyarthritis | 1 | 6.25 | 1 | 1.27 | 1 | 2.78 |
| 12 | Coccidiosis | - | - | 2 | 2.53 | - | - |
| 13 | Repeat breeding | - | - | 2 | 2.53 | - | - |
| 14 | Scabies | - | - | 3 | 3.8 | 2 | 5.56 |
| 15 | Tick infestation | 1 | 6.25 | 11 | 13.92 | 2 | 5.56 |
| 16 | Anaplasmosis | - | - | 2 | 2.53 | 2 | 5.56 |
| 17 | Anestrus | - | - | 3 | 3.8 | - | - |
| 18 | Black Quarter | - | - | 2 | 2.53 | - | - |
| 19 | Cow pox | - | - | - | - | 2 | 5.56 |
| 20 | Castration | - | - | 3 | 3.8 | - | - |
| 21 | Acidosis | - | - | 3 | 3.8 | 1 | 2.78 |
| 22 | Milk fever | - | - | - | - | 1 | 2.78 |
| 23 | Surgical intervention | 1 | 6.25 | 7 | 8.86 | 2 | 5.56 |
| 24 | Aspiration Pneumonia | - | - | 2 | 2.53 | 1 | 2.78 |
| 25 | Myiasis | - | - | 2 | 2.53 | - | - |
| 26 | Others | 1 | 6.25 | 1 | 1.27 | - | - |
|   | Total  | 16 | 100 | 79 | 100 | 36 | 100 |

**4.3.1 Prevalence of diseases and disorders in goat**

In total 22 diseases and disorders were recorded in one hundred twenty one (121) goat, brought to the Veterinary Hospital for treatment purposes during the study period. Among the 121 cases highest prevalence was recorded as PPR 22(18.18%) followed by respiratory disorders 10(8.26%), endoparasitic infestation 10(8,26%), dog bite wound 8( 6.61%), myiasis 4(3.31%) and so on where lower is tetanus 1(0.83%).

**Table:7: Prevalence of diseases and disorders in goat**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SL no** | **Disease or disorders** | **Total No of cases** | **Percentage** | **Mean±SE** |
| 1 | Anaplasmosis | 2 | 1.65 | 1.65±1.16 |
| 2 | Aneamia | 3 | 2.48 | 2.47±1.41 |
| 3 | Anorexia | 7 | 5.79 | 5.78±2.13 |
| 4 | Respiratory disorder | 10 | 8.26 | 8.26±2.51 |
| 5 | Ectoparasitic infestation | 7 | 5.79 | 5.78±2.13 |
| 6 | Conjunctivitis | 3 | 2.48 | 2.47±1.41 |
| 7 | Joint ill | 5 | 4.13 | 4.13±1.81 |
| 8 | Dog bite wound | 8 | 6.61 | 6.61±2.26 |
| 9 | Enteritis | 3 | 2.48 | 2.47±1.41 |
| 10 | Foot rot | 4 | 3.31 | 3.3±1.63 |
| 11 | Mastitis | 1 | 0.83 | 0.82±0.82 |
| 12 | Myiasis | 4 | 3.31 | 3.3±1.63 |
| 13 | Endoparasitic infestation | 10 | 8.26 | 8.26±2.51 |
| 14 | PPR | 22 | 18.18 | 18.18±3.52 |
| 15 | Digestive disorder | 8 | 6.61 | 6.61±2.26 |
| 16 | Tetanus | 1 | 0.83 | 8.26±0.82 |
| 17 | Urolithiasis | 4 | 3.31 | 3.3±1.63 |
| 18 | Arthritis | 2 | 1.65 | 1.65±1.16 |
| 19 | Surgical intervention | 4 | 3.31 | 3.3±1.63 |
| 20 | Acidosis | 3 | 2.48 | 2.74±1.41 |
| 21 | Others | 5 | 4.13 | 4.1±1.81 |
| 22 | Problem in hooves | 5 | 4.13 | 4.1±1.81 |
|  | Total | 121 | 100 |  |

**4.3.2 Sex wise prevalence of diseases and disorders in goat**

The comparative clinical prevalence of disease and disorders of male and female cattle were presented in Table 7 and revealed that females (62.8%) were more susceptible than male (37.19%). PPR 14(18.42%) was prevalent in female whereas urolithiasis 3(6.67) was prevalelnt in male.

**Table:8: Overall disease prevalence of goat according to sex**

|  |  |  |
| --- | --- | --- |
| **Sex** | **Total no of cases** | **Percentage** |
| Male | 45 | 37.19 |
| Female | 76 | 62.80 |

**Table :9 : Detailed disease prevalence of goat according to sex**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl no** | **Disease or disorders** | **Male** | **Percentage** | **Female** | **Percentage** |
| 1 | Anaplasmosis | - | - | 2 | 2.63 |
| 2 | Aneamia | 1 | 2.22 | 2 | 2.63 |
| 3 | Anorexia | 3 | 6.67 | 4 | 5.26 |
| 4 | Respiratory disorder | 4 | 8.89 | 6 | 7.89 |
| 5 | Ectoparasitic infestation | - | - | 7 | 9.21 |
| 6 | Conjunctivitis | 3 | 6.67 | - | - |
| 7 | Joint ill | 4 | 8.89 | 1 | 1.32 |
| 8 | Dog bite wound | 2 | 4.44 | 6 | 7.89 |
| 9 | Enteritis |  | - | 3 | 3.95 |
| 10 | Foot rot | 2 | 4.44 | 2 | 2.63 |
| 11 | Mastitis | - | - | 1 | 1.32 |
| 12 | Myiasis | 1 | 2.22 | 3 | 3.95 |
| 13 | Endoparasitic infestation | 7 | 15.56 | 3 | 3.95 |
| 14 | PPR | 8 | 17.78 | 14 | 18.42 |
| 15 | Digestive disorder | 1 | 2.22 | 7 | 9.21 |
| 16 | Tetanus | 1 | 2.22 | - |  |
| 17 | Urolithiasis | 3 | 6.67 | 1 | 1.32 |
| **Sl no** | **Disease or disorders** | **Male** | **Percentage** | **Female** | **Percentage** |
| 18 | Arthritis | - | - | 2 | 2.63 |
| 19 | Surgical intervention | 3 | 6.67 | 1 | 1.32 |
| 20 | Acidosis | 1 | 2.22 | 2 | 2.63 |
| 21 | Others | - | - | 5 | 6.58 |
| 22 | Problem in hooves | 1 | 2.22 | 4 | 5.26 |
|  | Total  | 45 | 100 | 76 | 100 |

**Graph 2: Disease prevalence of goat according to sex**

**4.3.3 Prevalence of diseases and disorders in different age groups of goat**

It was revealed that middle aged goats (6 months- 2 years) were frequently affected with different diseases (55.37%) than kid (33.05%) and older (11.57%). Respiratory disorder was most prevalent 8(11.94%) followed by urolithiasis 3(4.48%) in middle aged goat.

**Table:10: Overall disease prevalence of goat according to age**

|  |  |  |
| --- | --- | --- |
| **Age**  | **Total no of cases** | **Percentage** |
| Kids (< 6 months) | 40 | 33.05 |
| Middle aged (6 months – 2 years) | 67 | 55.37 |
| Adult (> 2 years) | 14 | 11.57 |

**Table:11: Detailed disease prevalence of goat according to age**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **SL no** | **Disease or disorders** | **Kids (<6 months)** | **Percentage** | **Middle aged (6 months to 2 years)** | **percentage** | **Adult (>2 years)** | **percentage** |
| 1 | Anaplasmosis | - | - | 1 | 1.49 | 1 | 7.14 |
| 2 | Aneamia | - | - | 3 | 4.48 | - | - |
| 3 | Anorexia | 3 | 7.5 | 4 | 5.97 | - | - |
| 4 | Respiratory disorder | 2 | 5 | 8 | 11.94 | - | - |
| 5 | Ectoparasitic infestation | - | - | 6 | 8.96 | 1 | 7.14 |
| 6 | Conjunctivitis | 1 | 2.5 | - | - | 2 | 14.29 |
| 7 | Joint ill | 2 | 5 | 3 | 4.48 | - | - |
| 8 | Dog bite wound | 2 | 5 | 6 | 8.96 | - | - |
| 9 | Enteritis | 1 | 2.5 | 2 | 2.99 | - | - |
| 10 | Foot rot | 3 | 7.5 | 1 | 1.49 | - | - |
| 11 | Mastitis | - | - | - | - | 1 | 7.14 |
| 12 | Myiasis | - | - | 2 | 2.99 | 2 | 14.29 |
| 13 | Endoparasitic infestation | 5 | 12.5 | 5 | 7.46 | 2 | 14.29 |
| 14 | PPR | 7 | 17.5 | 12 | 17.91 | 3 | 21.43 |
| 15 | Digestive disorder | 3 | 7.5 | 3 | 4.48 | 2 | 14.29 |
| 16 | Tetanus | - | - | 1 | 1.49 | - | - |
| 17 | Urolithiasis | 1 | 2.5 | 3 | 4.48 | - | - |
| 18 | Arthritis | 1 | 2.5 | 1 | 1.49 | - | - |
| **SL no** | **Disease or disorders** | **Kids (under 6 months)** | **Percentage** | **Middle aged (6 months to 2 years)** | **Percentage** | **Adult (above 2 years)** | **Percentage** |
| 19 | Surgical intervention | 3 | 7.5 | 1 | 1.49 | - | - |
| 20 | Acidosis | 3 | 7.5 | - | - | - | - |
| 21 | Others | 2 | 5 | 1 | 1.49 | 2 | 14.29 |
| 22 | Problem in hooves | 1 | 2.5 | 4 | 5.97 | - | - |
|  | Total cases | 40 | 100 | 67 | 100 | 14 | 100 |

**Graph 3: Disease prevalence of goat according to age**