**CHAPTER – I**

**INTRODUTCTION**

Bangladesh is an over populated, rural and agrarian country in the world and livestock has been an important component of the mixed farming system practiced in Bangladesh for centuries. About 80% of our population is employed in agriculture and livestock farming. Twenty percent people are involved in livestock sector as permanent occupation. The contribution of Livestock in the magnitude of Gross Domestic Product (GDP) is about 16.23 % in Bangladesh (BBS, 2008). But the livestock diseases and disorders of animals are the most important hindrance towards livestock development in our country. There are about 22.53 million cattle and 14.69 million goats in our country (DLS, 2008-2009). Most of the animals are weak, emaciated and non satisfactory productive performance due to mainly malnutrition and diseases.

Hides and skins, the basic raw materials of leather industries, are obtained as by-products of livestock industries. The annual availability of hides and skins in Bangladesh is 15 million square meters. Unlike others, it is a constant source of export earnings and contributes about 10.7% of the total export earnings. However a large proportion of the materials is downgraded and rejected by their defects. An annual (1990-91) economic loss of Taka 818 crores or US $ 220.95 million (cattle US $ 194.5 m., buffalo US $ 1.9 m., goat US $ 24.1 m., sheep US $ 0.5 m) was estimated to be associated with leather defects in Bangladesh (Dey and Nooruddin, 1993) Bangladesh has a fairly large livestock population to support a strong and growing tanning industry. Cow hides account for 56% of the production, goat skins for 30% and buffalo makes up the rest. The current output in Bangladesh is about 200 million sq.ft. of leather annually (Hide and Skin Merchants Association (HSMA), Survey report.2005, Dhaka, Bangladesh).

Skin diseases are the major cause of hindering the development of livestock population in Bangladesh. Skin diseases also keep impact on tannery sector; reduce the market value of hides & skin. Skin diseases are widely prevalent in Bangladesh and produce a substantial economic loss. The quality of tanned leather is greatly reduced by various skin diseases (Coles, Hadly, 2003). They also affect the health and productivity of livestock.

Skin diseases have zoonotic importance as it is spread from animal to human, animal to animal by direct contact.

Skin diseases are responsible factor for discomfort, zoonoses and loss of market value, weight gain, milk production and draught power of the animal. Annual financial loss amounting to Tk. 818 cores (US$221 million) was estimated to be due to down grading and rejection of leathers associated with the defects caused by skin diseases lesion and post mortem & industrial defects ( Nooruddin and Dey, 1993).

The tropical environment of Bangladesh creates a favorable condition for the easy growth of micro- organism and parasites. Skin diseases are very common in ruminants both rural as well as urban areas of Bangladesh. A wide variety of skin diseases are found at field levels, but very few of them can be confirmed by laboratory diagnosis. Moreover, laboratory diagnosis facilities are limited at field level. From my two months of field experience at Upazila veterinary Hospital, it has been seen that skin diseases are diagnosed mainly by clinical signs, taking clinical history of patients, age, animal’s management, etc. The common skin disease conditions are:

1. **Diseases of the epidermis and dermis:**
2. Pityriasis
3. Parakeratosis
4. Hyperkeratosis
5. Pachydermia
6. Impetigo
7. Urticaria
8. Eczema
9. Dermatitis
10. Photosensitization.
11. **Diseases of the hypodermis / subcutis:**
12. Sub cutaneous edema
13. Angioneurotic edema
14. Emphysema
15. Sub cutaneous
16. Sub cutaneous abscess
17. Lymphangitis
18. **Other diseases of the skin:**
19. Alopecia
20. Burns
21. Yoke gall
22. Cutaneous neoplasm
23. Congenital defects

Skin diseases hamper production of animals by various ways such as: mite infestation produce scales, alopecia, itching, erythema, hyperkeratosis; lice produce marked itching, irritation, formation of erythematous macula’s, dermatic lesions and anemia incase of heavy infestation. Lice, mites also create marked inanition that leads to weakness and poor health. Dermatophilosis, dermatophytosis and hump sore produce crust formation, alopecia and hyperkeratosis in the skin of animals.

Rural people are not so much conscious about livestock skin problem. So, it is a common phenomenon that their animals always having skin diseases either to a greater or lesser extent. But when the condition turn into severe condition, then they take the animal to the hospital. So, initially when major clinical signs were appeared, it is beneficial for the veterinarian to diagnosis and treatment.

Veterinary hospital is an ideal and reliable source of information about animal diseases and their solution. People from the neighboring areas bring their sick animals to the Veterinary hospital every day. Analysis of the case record gives a comprehensive idea about the disease problems at local areas..

Therefore my study was undertaken at Thana **Veterinary Hospital, Panchlaish, Chittagong** with the following objectives:

* To know the prevalence of skin diseases of ruminants (cattle & goat)
* To know the epidemiology of the diseases.