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Nowadays, people and animals are greatly suffering due to antimicrobial resistance (AMR) as well as the side effects of numerous medicinal products worldwide. In such circumstances, I assume it is essential to practice herbal medicine largely, since herbal medications possess no or minimum adverse effects and are less prone to be affected by future diseases. Herbal medicine, in my opinion, is necessary for the safety of all humans and animals in the present era. Herbal remedies practice, in my perspective, will progress human and veterinary healthcare services towards a new dimension. My initial ideas about herbal medicine came from my family. I belong to an extended South-Asian Bengali family where herbal or natural plants are generally used and practised from the very beginning of life. I get ideas about the practical use of herbal medicine from the older members of my family. The properties of these natural herbal plants have always pleased my forefathers, and these continue to impress my whole family as well. Before trying any chemical drugs, they always go through the natural remedies first. But after seeing some of its broad application in animals, my curiosity in herbal therapy in veterinary care got sparked.

Although I'm at the beginning of learning the usages of herbal remedies in veterinary care through my academic courses. Additionally, I have gained some knowledge from my seniors and also from some books on traditional Indian medicinal plant and Ayurvedic herbs. During my second year in veterinary school, I learned about the usages of some herbal plants in veterinary care from my seniors, who had conducted practical work with herbal drugs. Some of the fact I experienced include pet animals like as cats that, when suffering from digestive system issues, willingly consumed various types of grasses. Besides these, ginger juice is one of the finest natural remedies for bloating(gas formation) in animals. People in the tropical area like Bangladesh, in most circumstances, choose to use these plants as an alternative to pharmaceutical medications because they would love to engage largely in natural sources since ancient times. In this essay, I choose 3 types of antiviral herbs which are native to many parts of Asia and so in Bangladesh. These includes *Leucas aspera* (locally known as Dondokolos), *Centella asiatica* (or Thankuni), and *Cynodon dactylon* (Scutch grass). These 3 herbs can easily be found almost everywhere in Bangladesh in their natural habitat. These three native herbal plants are widely used to treat a variety of health issues.

Leucas aspera, locally known as "Dondokolos" is a native herbal plant in Bangladesh. These herbs are growing naturally in the nearby flat soil in Bangladesh. Dondokolos are found along roadsides in rural areas or , towards river banks.. Most of the time these trees grow in winter season in Bangladesh.

Locally, this herbal is used as a paste or juice to treat various physical ailments such as diabetes, stomach

disorder, respiratory problems, dysentery, and sore in the mouth and throat. [1]. This herb can be used as a whole plant. Crushed leaves are also used to treat minor fevers, colds, rheumatism, as well as a roundworm elimination, mostly for children [2]. Let me share a personal story about the antiviral activity of this herbal plant. My paternal aunty once suffered badly from cold and coughs (normal flu) during her postpartum period and the doctor rarely encouraged her to take chemical or Pharmaceutical drugs as she has to breastfeed her infant. So, she started to take the juice of *Leucas aspera* (Dondokolos), a natural herbal remedy. After taking about 5 days she got a positive result from it. Our native peoples believed that this herb juice builds better immunity in the mother's body which protects the baby's body from various diseases through milk. Furthermore, Some people are taking it to further strengthen the immune system in reaction to covid-19 since it is particularly effective in respiratory problems. However, this herb is also applied to the animal body as well. Farmers in rural Bangladesh utilize the juice of these plants to feed livestock, particularly goats to minimize digestive disturbances.

Centella asiatica, another endemic herb in Bangladesh commonly known "Thankuni". This is a native plant in Asia. In Bangladesh, it occurs mostly in every region. They are most commonly found in Bangladesh by the side of the road, in damp areas around the land, and in high locations near rivers. The production of this plant is naturally suitable because of the subtropical atmosphere of Bangladesh. This plant thrives naturally in wet, rich, loose, loamy sand, and clayey soil. [3] This herb is very popular for its medicinal properties along with antiviral properties. Thankuni (local name) is widely used by native people to cure digestive system problems and diarrhea. This plant is also used to treat diabetes., *Centella* spp. can also be used to treat respiratory issues like cough, sore throat. Crude water extracts of *Centella asiatica* showed anti-herpes simplex virus activities [4]. Wasp stings are treated with thankuni leaf juice, while menorrhagia (excess menstrual bleeding) is treated with the infusion of thankuni. Because most women are apprehensive of using pharmaceutical medicines for menstruation problems, they choose to treat their symptoms with natural remedies. This herb has a unique feature in that it aids in memory enhancement as well as cognitive growth. It is very well recognized as a memory-enhancing herbal medication in my family and community as well.

Scutch grass (*Cynodon dactylon*), the most common herb found in weed form in almost every area of Bangladesh. Locally it is known as "Durba ghaas". This most familiar herb found native to tropical or subtropical areas including Bangladesh. Local people use its extract as a first aid to stop bleeding if they cut their hands and feet in an accident. Moreover, *Cynodon dactylon* has antiviral effect in various species. The whole plant *Cynodon dactylon* has been found to be very beneficial in controlling black tiger prawns against infection with the white spot syndrome virus with no deaths. [5]. Based on the concept of immunofluorescence, researchers recently evaluated crude extracts of *Cynodon dactylon* in vitro for

possible anti-rabies efficacy. The extracts were cytotoxicity tested and phytochemically analyzed.[6]. *Cynodon. dactylon* is believed to have a variety of properties for treating bronchoconstriction, including antitussive, mucolytic, expectorant, and others.[7]. With its antiviral action, it can be utilized as a covid-19 therapy. In case of animals, it is the most common pasture. Durba grass is really an excellent fodder grass that may well be farmed or utilized in cut-and-carry systems. It can be used to make hay, silage, and pellets in livestock farming. [8]. If there is an alteration in the feeding patterns of livestock animals, durba grass may be supplied locally. This is effective for a variety of gastrointestinal problems.

Myself Shrabonti Banik, from Habiganj Sadar, Sylhet, Bangladesh. I am a 3rd year student of Doctor of Veterinary Medicine (DVM) at Sylhet Agricultural University. My area of interest is working on various infectious diseases and exploring an alternative to antibiotics. I wish to use different types of plants with natural medicinal properties instead of antibiotics in future so that the chemical side-effects can be avoided as much as possible and the natural plants can be saved from extinction. If I get this scholarship, then my goal will be to take natural plants a few steps further to use their maximum as an alternative to pharmaceutical medicine. In the end, thank you so much for reading the whole essay patiently.

References

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