



Azolla - A Potential Animal Feed

Dr. S.J.Aruna* and Mrs. E.Kanmani

*Associate Professor, Agricultural Microbiology,
College of Agricultural Technology, Theni

Animal Husbandry is one of the promising income generating opportunity to the farming people. Availability of quantity fodder to the animals is the major impediment in scientific management of animals. India, accounting for 2.4% of worlds Geographical area, sustains 11% of worlds livestock population. Among the livestock, India accounts for 55% of worlds buffalo population, which leads an unbearable burden on natural vegetation . Azolla, an aquatic floating fern, found in temperate climate, a green manure in paddy is a potentially suitable fodder for the livestock. The fern appears as green mat over water.

Azolla , as a promising animal husbandry feed can be fed to cattle, sheep, goat, pigs, poultry fish etc. One kg of concentrated chick feed can be supplemented with 100g Azolla. This improves egg laying capacity and disease resistance. Besides, the maturity for egg laying is also advanced by 30 to 40 days. In cow, the milk yield is increased by 500-1000ml every day, on feeding with Azolla @1-1.5 kg per day. For Goat and sheep, Azolla can be mixed with jaggary and fed @500g per day. Azolla is proven to be a good fish feed which increases the body weight of fish. In countries like china and Thailand azolla is also being consumed by man.



Generally, all the farmers, in addition to farming activity will have a small unit of livestock with 2 to 3 cows or buffaloes or sheep and goat. Invariably, all prefer to raise chicks and poultry through which

they raise daily income by selling eggs, country chicks, etc. For such farmers, the fodder requirement can easily be met with raising Azolla.



Azolla, if grown for fodder should be raised in a hygienic environment. It can easily be maintained by female members. Azolla fodder plots can be maintained in the back yard. Pit of size 2.5 m length and 1-1.5 m breadth can be dug .The depth can be maintained at 0.2m.Length and breadth can be varied depending on the need and easy of operation. The pit is lined with polythene sheets. 10 cm standing water can to be maintained in the pit. 10 -15 kg of fine sieved soil and spread in the pit.5 kg of cow dung (1-2 days decomposed) in mixed in water and poured in the pit. About 40-50g of nutrient mix (mixture of super phosphate,magenesium salt,potassium salt) is added to the bed. Micronutrients can also be added.Water level in maintained at 10 cm height and stirred well. About 1 kg of mother culture of Azolla is spread uniformly over the bed.



Azolla multiplies and spread in 7-8 days. During the initial 7-8 days water level is maintained properly. Harvest should not be done. After 7-8 days Azolla can be harvested at 1.5 kg /pit/day. Azolla is harvested using trays with sieves and washed thoroughly with fresh water. Washing is necessary to remove the smell of cowdung. Azolla can be feed to the animals on mixing with commercial feed. The Azolla growing pit should be added with nutrients once in 7-8 days. Soil can be replaced once in 2 months.

The entire bed should be revived once in 5-6 months. The soil is removed the sheets are dried in sunlight for one or two days and then relaid. Soil cowdung are added and fresh inoculums is added and maintained and the process is repeated for continuous cultivation of Azolla.