

1. INTRODUCTION

Azolla is a genus of small aquatic fern that is found in temperate and tropical region of the world. There are several types of these, some are tropical species like *Azolla pinnata* and other are temperate species like *Azolla filiculoides* and *Azolla mexicana* (Espinass et al, 1979).

Azolla has a hereditary symbiotic relationship with *Anabaena azolla*, a diazotrophic or nitrogen-fixing cyanobacteria. The association is characterized by a high productivity and a high protein content.

These properties give azolla fertilizing and nutritive qualities, well known and utilized over many centuries in many countries. However, until the end of the 1950's, azolliculture has been practiced only in very limited areas of these countries, along the coast between 18° and 30° North latitudes, such areas having a humid subtropical climate with wide seasonal variations of temperature.

The ability of this fern to fix nitrogen from air has generated so much interest among scientists. Most of the researches done with azolla were on rice, as a potential fertilizer. However, azolla has numerous uses, other than as a green manure for rice. Probably most important of these are as a fodder for livestock, as a composite for other crops, and as a weed suppressor.

Azolla has traditionally been used throughout Asia and parts of Africa as a fresh, dried or fermented fodder for swine, poultry and fish. Small plots of azolla are grown for fodder in canals and ponds throughout Southeastern China.

With the growing importance of azolla, particularly in livestock feeding, it is important to di