

Skill Hub

AZOLLA FARMING

Azolla is a nature's gift for rice cultivation and has tremendous other agricultural uses. It is one of the most nutritive animal feed and also a source of green manure. Moreover it is also an excellent bio fertilizer too.

Azolla has several times higher level of crude protein than other forage crops and is also rich in mineral nutrients. Despite its benefits this commonly available water fern is in disguise due to lack of knowledge among farming community.

Azolla is a floating aquatic pteridophyte (a fern) with symbiotically associated nitrogen fixing cyanobacteria (*Anabaena azollae*). In fact it often forms green or red mats in water bodies and also has names as 'duckweed' and 'fairly moss'

Six species of Azolla are there via:- *A. Carolina*, *A. filiculoides*, *A. Mexicana*, *A. microphylla*, *A. nilotica* and *A. pinnata*. Out of these *Azolla pinnata* is very common and good yielder in tropical climates.

The plants are visible as clusters of small leaf floating in ponds, wet fields, rice field and drains. While their fibrous roots floats underneath of the water.



Uses of Azolla

GREEN MANURE

Use of Azolla as green manure

Azolla can be used to increase rice yield by several folds at comparatively low cost and less labour. They are grown in a part of field and are transferred in the whole field, before or after transplanting.



FISH MANURE

It is highly nutritious and cheap source of fish feed with high protein content. The green plants are grown in a section of pond by separating with a net from fishes. Afterwards they are released at intervals for this fishes to eat.

PIGGERY AND POULTRY SUPPLEMENT

Being a rich source of proteins and amino acids they are often used as a feed supplement. However it is not only limited to poultry and pigs this feed is used for other livestock also.

DAIRY FEED

Mixing some amount of dairy feed with Azolla enriches the nutritional value of feed. Moreover direct feeding of livestock with green Azolla in dry seasons is also a good practice.

BIOFERTILIZER

Being capable of symbiotic nitrogen fixation Azolla is an excellent bio fertilizer. In fact in different researches it was found that the yield of rice was increased by 20-30% when incorporated with Azolla cultivation.