

PROSPECTS AND PROBLEMS OF AZOLLA CULTIVATION IN SRI LANKA

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Azolla is a small water fern belonging to the family Salviniaceae. The potential significance of Azolla as a source of nitrogen in agriculture is due to its symbiotic association with the nitrogen fixing blue-green algae, *Anabaena azollae* that is found within its leaves. Azolla has been known and used as a green manure for rice in Vietnam for centuries.

Of the 6 species of Azolla in existence today, *Azolla pinnata* is found occurring naturally in many parts of Sri Lanka. Although some rice fields in the country had this for well over half a century, there is no evidence of attempts to exploit its agronomic potential by farmers.

Under favourable conditions Azolla can be made to provide more than half the quantity of nitrogen required by a rice crop. Additionally it provides organic matter to the soil.

Water is the fundamental requirement for the existence of Azolla. A major constraint to the extension of its use in rice culture in Sri Lanka would be the non-availability of sufficient water during certain periods of the year in some parts of the country.

Some insect pests and snails are found to be very disastrous to the growth and propagation of Azolla.

As a supplier of nitrogen and carbon using atmospheric sources and solar energy, Azolla is a bio-fertilizer with great potential.