

Aeschynomene indica .L.
"Can it be considered
a. Paddy Weed Anylonger"

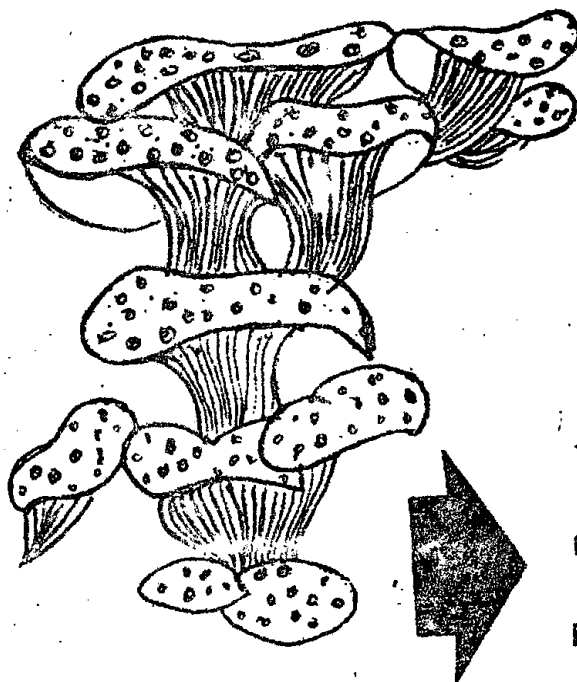
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Aeschynomene indica is a broadleaved paddy weed found in lowland paddy fields in the low country wet zone. In some areas it is called by the common name "Diyasiyambala". Field observations during the past indicate that, even though it compete with rice plants, the rice plants are more greener in colour under these plants than in the rest of the fields. This made us to suspect it to be a nitrogen fixing plant, since it belong to the family Leguminosae. Closer observations of this plant have shown that it has some irregular swellings at the base of the plant, which when pinched or cut showing a pink colour which may be due to its nitrogen fixation. Observing the underground plant parts, it was found that there are nodules at the stem base just below the soil surface, and on the superficial roots mostly. In established nitrogen fixing nodules the nodular activity is found by cutting the nodules and if it is pink in colour one could assume that it is fixing nitrogen actively. The root nodules, stem nodules and the irregular swellings on the stem of *Aeschynomene* also shows pink in colour when cut or pinched, suspecting its ability to fix nitrogen. However the nitrogen fixing ability of this plant needs establishment by ARA analysis. The procedure how these fixed nitrogen is made available to the rice plant, for it to look greener is yet to established.

Under normal field conditions this plant grow to a height of 4-5 feet and has a very sparse foliage. Therefore it will provide high light penetration to the rice canopy and compete for very little space with rice. Further since it

has a tap root system competition for nutrients is also low as the rhizosphere of the two plants are at two different levels. Therefore the competition rendered by this plant on rice is minimum. This suggests that it can be grown along with the rice or could be grown on the bunds and later put to the field as a nitrogen supplement at the top dressing stage of the rice. But the threshold population levels needs to be worked out. If the suspected nitrogen fixing ability of this plant could be established its use as a nitrogen supplement either by growing it as a fallow crop or as a relay crop with paddy is immeasurable.

Further investigations on how much nitrogen a plant can fix, and ways of increasing its nitrogen fixing activity need extensive research! Therefore this broadleaved weed hitherto a weed in the paddy fields, could further be considered a weed?



This is
Oyster
Mushroom.