

Azolla Cultivation

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Introduction

Presently availability of cow dung is going down everywhere and day by day it is becoming very difficult to avail recommended quantity of cow dung/ Organic manure for cultivation of any crop. Whereas cow dung/ Organic manure is a very essential component for soil health

management and to increase the productivity of any crop. In view of the above azolla can be a supplementary to cow dung/ organic manure which can be made available at very low cost and a good quantity of organic matter can be incorporated in the soil.

Practical utility

1. *Azolla* has been extensively used both as biofertilizer and green manuring for rice cultivation and also can be used other crops.
2. *Azolla* fixes 40-60 kg N/ha in rice crop.
3. *Azolla* has been used as feed for pig, duck, and fish. It has high content of protein (20-30% on dry weight basis).

Md. Ayub Ali, S/o – Md. Idris Ali, resident of Jubarajnagar, under Jubarajnagar Block,

Panchayat, has got introduced *Azolla* cultivation by KVK North Tripura, Panisagar during the year 2015-16. *Azolla* was supplied to Md. Ayub Ali during the year 2015-16 along with proper guideline for construction of pit for home stead *azolla* cultivation. Initially he has started *azolla* cultivation at home and at a time he dug out 8 pits and all the pits are dug as per the guidance and he has followed all the necessary requisites.

KVK intervention

- In order to enhance the soil health and to increase the productivity of different crops of the village by exploring the best possible resource and using the low-cost *azolla* cultivation structure were demonstrated during the *kharif* season of 2015.
- Krishi Vigyan Kendra, North Tripura, Panisagar, has intervened and demonstrated low-cost *azolla* cultivation at farm of Md. Ayub Ali of Jubarajnagar village.

- In this technology, a *small water tank* was constructed at his own farm by digging a pit of 1 x 3 x 0.20 m and covered with a plastic lining.
- Md. Ayub Ali is a progressive farmer of Jubarajnagar and volunteered to adopt the low-cost technology in his land to harvest green manure.
- At the same time 4 unit of low-cost structure for *azolla* cultivation was constructed in KVK Campus for demonstration to other farmers.



Homestead Cultivation procedure

- Prepare pit 2m length, 1m width & 20cm depth
- Spread polythene sheet (2.6m x 1.6m) over the pit
- Add SSP (10g), MOP (10g), dry cow dung (100g) & Azolla 300 g
- Mud plastering the surroundings & pour water level (10 cm)
- Multiply for 15 days. Harvest and repeat the above procedure.

Field condition cultivation

- Prepare and level the field uniformly

- Divide the field into 20x5m providing suitable bunds & irrigation channel.
- Maintain 10 cm water depth
- Add 10 kg cowdung+8kg Azolla+100 gm SSP /plot.
- Harvest after 15 days.

Impact of intervention

Before the intervention, Md. Ayub Ali hardly used to fulfill his requirement of organic manure to use in the field. Now he is producing sufficient quantity of azolla which he feeds to his cattle, duck and fish and also, he has observed that after azolla feeding his cow is giving more. Some action photographs are attached below





Md. Ayub Ali is now a successful rural youth farmer showing the path to other farmers to manage soil health with low-cost azolla and also as a source of feed to cattle, duck and fish.

Economic of normal practice

Cost of production (per ha.) - - Rs 24299.00,
 Avg. production (per ha.)- 3.85 mt,
 Avg. market price of paddy (Rs/ Kg.)- 15.00,
 Gross return- 57750.00, Net return- 33451.00,

Conclusion

Presently he is gradually increasing the production of azolla for the purpose of feeding to fish, cow, duck and also family women are using it for their home stead kitchen garden. These days other farmers are interestingly

B:C ratio – 2.37:1

Economics/Profitability of innovative practice

Cost of production (per ha.) - Rs 22887.00,
 Avg. production (per ha.)- 5 mt ,
 Avg. market price of paddy (Rs/ Kg.)- 15.00,
 Gross return- 75000.00, Net return- 52113.00
 B:C ratio – 3.27:1

coming forward to cultivate azolla without any schematic provision. Presently he is using azolla in his 2 acre of his paddy land and also distributing to other farmers of the locality.

