



Cultivation of Azolla in Paddy Field: Boosts Soil Fertility

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What is Azolla Cultivation?

First of all, let us know what azolla is, so let us tell you that azolla is an aqueous fern found in temperate climates. It is useful for paddy cultivation. The fern resembles a green layer on the water. The blue green algae (cynobacteria) are found in the lower part of this fern as a symbiont, which

converts atmospheric nitrogen. Its nitrogen conversion rate is about 25 kilograms per hectare. Let us know that nitrogen is very beneficial for the health of the soil. So the cultivation of azolla benefits both the paddy crop and the farmland.

How to cultivate azolla?

At present, the sowing season of kharif crops has begun. Paddy has an important place of its own among the crops grown in the kharif season. Paddy is cultivated prominently in many states. If azolla is also cultivated in the paddy field, then the farmers can get a lot of benefit. Azolla is no

less than a boon for paddy. Azolla contains a sufficient amount of nitrogen which is helpful in increasing the fertility of the land. This makes up for the shortage of chemical fertilizers in paddy, which leads to reduction in the use of chemical fertilizers

in paddy cultivation, which leads to cost reduction.

Variety of azolla found in India

Azolla pinnata is mainly found in India. It is a largely heat-tolerant variety.

How to grow azolla in a paddy field

According to agricultural experts, as green manure, azolla is grown alone for two to three weeks in a water-filled field, later, the water is taken out and the azolla fern is mixed in the field before transplanting paddy or a week after transplanting paddy, In a field filled with water, 4-5 quintals of fresh azolla is spread. This reduces the requirement of chemical fertilizers in paddy and also leads to higher production. Let us know that azolla can convert atmospheric carbon dioxide and nitrogen into carbohydrates and ammonia respectively and after decomposition, provides nitrogen to the crop and provides organic carbon content in the soil which is very good for soil health.

Benefits of Azolla Cultivation

There are many types of benefits from the cultivation of azolla. Some of these benefits are as follows:

1. Green manure made from azolla improves the health of the soil. This increases the fertility of the soil which leads to higher yields.
2. In the paddy field, azolla also suppresses small weeds.
3. This reduces the rate of evaporation from the irrigated paddy field.
4. This increases the capacity of the use of chemical fertilizers.

5. Azolla leaves the plant growth regulator and vitamins, which are helpful in the growth of paddy plants.
6. Azolla can serve as an alternative to chemical nitrogen fertilizers (20 kg/ha) to an extent and it increases the yield and quality of the crop.

What precautions to take in azolla cultivation

1. Some precautions should be taken while cultivating azolla which can lead to better production of azolla. These precautions are as follows:
2. The pH temperature for cultivation of azolla should be 7 between 5.5.
3. It is necessary to have an environment free of transition for good yield.
4. It should be cut regularly for the good growth of azolla.
5. For a good growth of Azolla, it is necessary to have a temperature of about 35 degrees Celsius. To reduce the effect of cold weather in cold areas, the fodder should be covered with plastic sheets.
6. To grow azolla, one should choose a place where there is direct and enough light of the sun. Because the yield is low in the shady place.