**Azolla as Poultry Feed**

**What is Azolla?**

Azolla is a floating fern resembles algae consisting of a short, branched, floating stem, bearing roots which hang down in the water. Normally Azolla is grown in paddy fields or shallow water bodies and it multiplies very rapidly.

**Advantages:**

- Easily grows in wild environment and even can be grown under controlled environment like poly house and greenhouse.
- It can fix atmospheric CO₂ and nitrogen to form carbohydrates and ammonia respectively.
- It helps to increase the crop yield and quality.
- When used as supplemental feed in dairy, piggery and poultry, increases the production performance.
- Farm women can easily grow Azolla in the house backyard, thus it is women friendly.

**Nutritive Value of Azolla:**

Rich in proteins, essential amino acids, vitamins (vitamin A, vitamin B₁₂ and β-Carotene), growth promoter intermediaries and minerals like calcium, phosphorous, potassium, ferrous, copper, magnesium.

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>% DM basis</th>
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<tbody>
<tr>
<td>Crude protein (CP)</td>
<td>21.89</td>
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<tr>
<td>Ether extract (EE)</td>
<td>3.52</td>
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<tr>
<td>Crude fibre (CF)</td>
<td>13.92</td>
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<tr>
<td>Total ash</td>
<td>18.01</td>
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<tr>
<td>Calcium</td>
<td>2.03</td>
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<tr>
<td>Phosphorus</td>
<td>0.59</td>
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Azolla cultivation method:

- The cultivated area should be cleaned properly. Use bricks to construct side walls of pond.
- Place durable plastic sheet (2m x 2m) at the bottom of the pond and secure all the sides of sheet by placing bricks over the side walls.
- Slurry made of 2 kg cow dung and 30 g of Super Phosphate mixed in 10 liters of water, is poured onto the sheet. More water is poured on to raise the water level to about 5 to 6”.
- About 0.5-1kg of fresh Azolla culture is spread uniformly over the water. The Azolla spreads all over the bed in a week's time and develops a thick mat like appearance.
- A mixture of 20 g of Super Phosphate and about 1 kg of cow dung should be added once in 5 days in order to maintain rapid multiplication of the Azolla and harvest 500 g daily.
- Around 25 to 30 percent of the water also needs to be replaced with fresh water, once in every 10 days, to prevent nitrogen build up in the bed.
- The cultivated area should covered with a net to prevent the fall of leaves and other debris into it. This net also provides partial shade which is very essential in Azolla cultivation.

Azolla in poultry feeding:

- Azolla can be incorporated in the poultry diet up to 10% without affecting the growth and egg production in dual purpose varieties developed for rural poultry farming.
- Azolla feeding in laying hens give dark yellow colour to the egg yolk.
- The cost of feed can be reduced by Rs. 2/kg by including 10% dried Azolla meal in poultry feed.