

Hydroponics fodder as livestock feed

December 26, 2013

It is a well accepted fact that feeding dairy animals is incomplete without including green fodder in their diet. However, the major constraints in production of green fodder are decreasing land size for fodder cultivation, scarcity of water more labour requirement, non-availability of samequality green fodder round the year, requirement of manure/fertilizer and natural calamities. As an alternative to conventional method of green fodder production, hydroponics technology is coming up to grow fodder for farm animals.

Greek word

The word hydroponics has been derived from the Greek word 'water working'. Hydro means 'water' and ponic means 'working' and it is a technology of growing plants without soil, but in water or nutrient rich solution for a short duration. The hydroponics green fodder production unit consists of a green house and a control unit. The size of the green house is approximately 25 feet (length) x 10 feet (width) x 10 feet (height) and has a potential to produce 600 kg of green fodder daily in seven days. Inside the green house, racks are present and each rack contains a number of rows, in which trays containing soaked seeds are accommodated. Pipes containing micro-foggers are fitted just above the trays for water fogging, which ultimately maintains the green house humidity.

Save water

To save water through recycling, one water tank is provided inside each green house with pump facility. Tubelights are fitted both in walls and roof of the green house to optimise the light requirement of the plants. The control unit regulates input of water and light automatically through sensors. Different types of fodder like maize, wheat, cow pea, etc. can be grown by hydroponics technology. The yield of the hydroponics green fodder is highly influenced by the type and quality of seed, cleanliness and hygienic condition of the green house. Hydroponics fodder is more nutritious than the conventional green fodder. In the situations where fodders cannot be grown farmers can produce hydroponics green fodder for their animals.

For More Details Contact

(Dr. Prafulla Kumar Naik, Senior Scientist (Animal Nutrition), ICAR Research Complex for Goa, Old Goa – 403 402, Goa, e-mail: pknaikicar@gmail.com