

A wonder herb to Increase Cattle Yield and Sustainable feed for Livestock

DR. Lhaki Doma Bhutia, SMS Animal Science, KVK WEST Sikkim drlhakila@gmail.com
7547955972

It is a well known fact that Sikkim is an Organic State and 70% of the total population reside in the Villages. Agriculture and Livestock rearing is the main source of income for this rural population. 60-70% of the cost of livestock production is incurred on feed and fodder. During lean winter period there is an acute shortage of feed and fodder for dairy animals. Shortage of fodder is therefore compensated with the use of readymade commercial feed resulting in increased cost of milk production.

To increase milk production and for providing sustainable feed for livestock Krishi Vigyan Kendra, West Sikkim has introduced a wonderful plant, *Azolla*, at Sindrang and Naku-Chumpong Village as a part of FLD in year 2017-18. *Azolla* is a free floating, rapidly growing aquatic fern. Under ideal conditions it grows exponentially, doubling its biomass in every three days. *Azolla* contain 21.56% crude protein and 15.05% crude fibre.

Krishi Vigyan Kendra, West Sikkim conducted Front Line Demonstration “Azolla as a nutrient supplement for Milch Cow” at Naku-Chumpong and Sindrang Village of West Sikkim during year 2017-18. It was introduced to improve the health, physical condition of animal, increase milk yield and to meet the nutritional gap of Milch Cattle. Before starting the trial, farmers were trained and made aware of the *Azolla*. Total 20 farmers were selected. The selected farmers were instructed to construct *Azolla* pond of 8x12x1mt. Silpaulin sheet and *azolla* culture was provided by KVK. Monitoring of pond and demonstration on feeding of *azolla* was done at regular interval.

Farmers were instructed to feed fresh *Azolla* @1.5kg/day /cattle along with concentrate mixture for three month. Change in milk yield and fat % was recorded after one month feeding of *Azolla*.

Result

Parameter	Milk yield (%)	Fat %
After 30 days of feeding	10	0.5-0.8
After 60 days of feeding	12	0.7-0.8
After 90 days of feeding	15	0.8-0.9
Reduction in feed cost	daily feeding of <i>azolla</i> @ 1kg reduces the oil cake by 100gm/day/cattle	

Farmers were highly motivated and felt that the technology is useful because of easy methodology and visible result within a short period of time. The improvement in health and physical condition of animals and increase in milk yield motivated the farmers to talk about *Azolla* and demanded for horizontal spread of this technology.



Training of farmers on Azolla and its uses



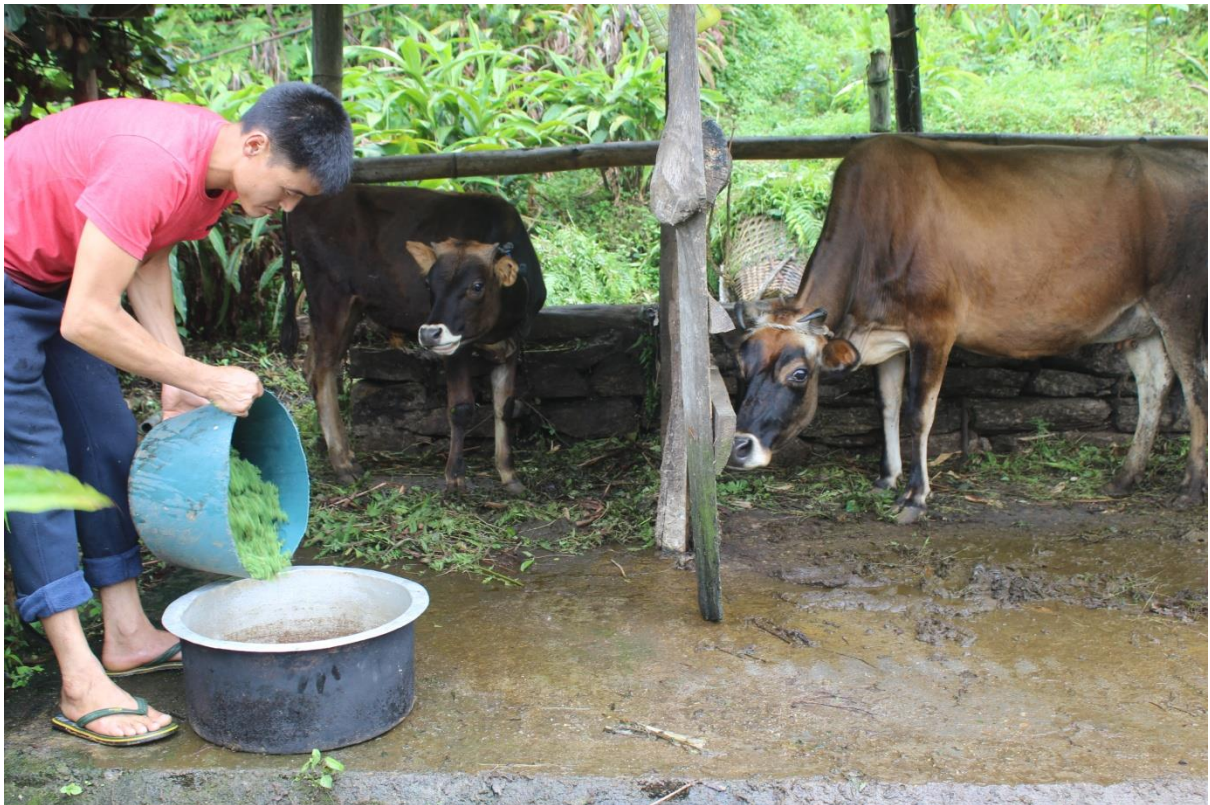
Distribution of Azolla culture and Silpaulin sheet



Demonstration of pond preparation



Azolla pond at farmer's field



Azolla supplementation to cattle