

3. Silage preparation in rain fed area of Pune district for livestock has become a role model.

Situation analysis/Problem statement: Dairy farming enterprise is a major income generating activity in the rain fed and irrigated area of the Pune District in Maharashtra. Maize and sorghum is a major fodder crops grown by the dairy farmers. Out of total population of cattle in the Pune District 50% population is crossbred animals, for maximum milk production crossbred animals require green fodder throughout the year. Area under fodder crops is 5% of total area of the District. Green fodder is not available throughout the year. Sugarcane tops are also available from Nov.to March in the area due to Sugar factories. There is shortage of green fodder during summer season (March to July) for animals. Livestock farming is secondary source of income for medium, small and marginal farmers. This is leading to reduction of milk yield by 20-25 % and mal Nutrition due to feeding of only sugarcane and sugarcane tops to dairy animals.

Plan, Implement and Support: KVK, Baramati has first time Demonstrated the technology in the village Jalgaon kp , Medad, Malegaon villages in 2011-to 2013. Under NDDDB support silage preparation in Tanks was demonstrated in 90 Villages of Pune districts under Fodder Development Project of National Dairy Development Board, Anand. In the year 2017-to 2019 silage preparation in poly bags was demonstrated and training was organized in collaboration with ATMA, Pune on large scale in the District. Method Demonstration was given to farmers in 90 villages and fodder harvester and fodder chopper loader demonstration was given in villages of Pune District. 5000 leaflets was Published and supplied to farmers in Training programme and during method Demonstration. Silage culture was prepared and provided by Host organization for promotion of silage preparation in the area. 10 Training programme was organized on fodder production and silage making and Demonstration of fodder harvesting machine was organized in 17 Villages on 30 farmerrs filed of Baramati, Indapur, Daund, Purandar, Bhor, Velha and Haveli of Pune district in the year 2014-2017.

Technology:- Sorghum or Maize green fodder was cultivated during the rainy season during the month of July to Oct. Fodder harvester also used for the fodder harvesting purpose. Maize green fodder was harvested in month of November at the age of 85-90 at half milk line stage. Green fodder crop having 30 % dry matter and 70 % moisture is used for silage making. Chopping of green fodder by tractor mounted Chopper loader was practiced for large scale silage making; the chop length of fodder should be 2-2.5 cm and uniform for proper pressing and silage making. The chopped fodder was filled in to the silo tank and silage culture at the rate of 1lit.for 10 Tone of fodder was used during the filling of tanks, Daily same procedure was repeated and within 3-5 days the total silo tank was filled and sealed with 300 micron HDPE film. Opening of Silo Pit: Silo pit is to be opened after 45 days after the sealing of silo pit from one side and required silage was removed and fed to the crossbred cows. 25 Kg Silage + 4 kg Dry fodder + 400 gm. of concentrate per kg of Milk production is to be Given in crossbred animals for maximum milk production and mineral mixture as per requirement.

Output: It is Found that the silage quality was very good and animals have liked it and aroma of the silage was pleasant, palpability is very good .It can be given by mixing with dry fodder the dry fodder intake was also improved due to mixing of silage in dry fodder. The data of milk, .Fat, and SNF was collected after silage feeding in the summer season and results are as follows.

Results of Silage Feeding to Cows in early lact.

Sr. No.	Name of the farmer	No. of cows in milking	Milk yield lit /day		Fat %	
			Before	After	Before	After
1	Mrs. Swati Ghadage	4	80	90	3.4	3.6
2	Mr. Sandeep lonkar	2	36	42	3.3	3.5
3	Mr. Gawade Parshuram	1	20	25	3.4	3.8
4	Mr. Wabale pandurang	4	44	50	3.6	3.8
5	Mr. Santosh kadam	10	135	155	3.2	3.5
	Total	21	315	362	16.9	18.2
	Average /cow/day Milk lit/fat%		15	17.23	3.38	3.64

More than 1000 farmers were doing good quality silage in 100-110 village of Pune district and they became skilled

Outcome: By seeing the success of this Technology more than 1000 farmers from 13 Tehsils in Pune district and adjoining Satara , Solapur , district of Maharashtra was adopted the silage making technology and awareness among the farmers in Maharashtra has been created by T.V programme on SAM TV. ATMA, Milk union has started to promote the silage making technology in the area.

Impact: 5 Rural Youth has purchased the Tractor mounted chopper loader for chopping of fodder on large scale and providing skill and labor support for silage making services to farmers in the area of

Baramati, Purandar, Indapur and Daund Tehsil. 230 Farmers from Jalgaon K.P. and Jalgaon Supe rain fed Villages of Baramati has adopted silage preparation Technology on large scale. Baramati Agro.ltd and one farmer from Khanota village has started silage making in bales and saling to dairy farmers of urban area. This technology is helping to save cost on concentrate by 20% as it is rich in energy. No need to go to field daily for harvesting of fodder crops which will help to save the diesel and petrol consumption of the farmers. Milk production of Jalgaon kp. and Jalgaon supe was increased by 22% and protein content and SNF was increased by 8-10%. More than 1000 small dairy farmers were started silage making in ploy bags. KVK, Powergotha management services pvt.ltd, Milk union , Baramati has started supplying poly bags for silage making.



