

Impact of Climate Change and Remedies



Gir Cow



Kankreji Cow

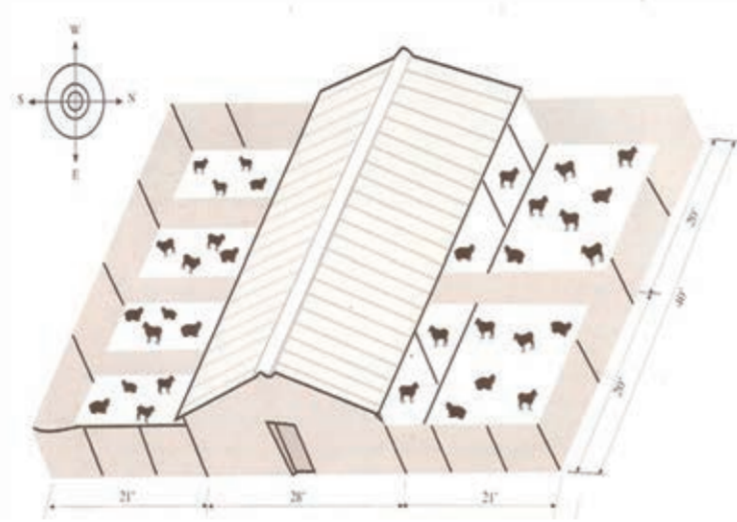


Jafrabadi Buffalo

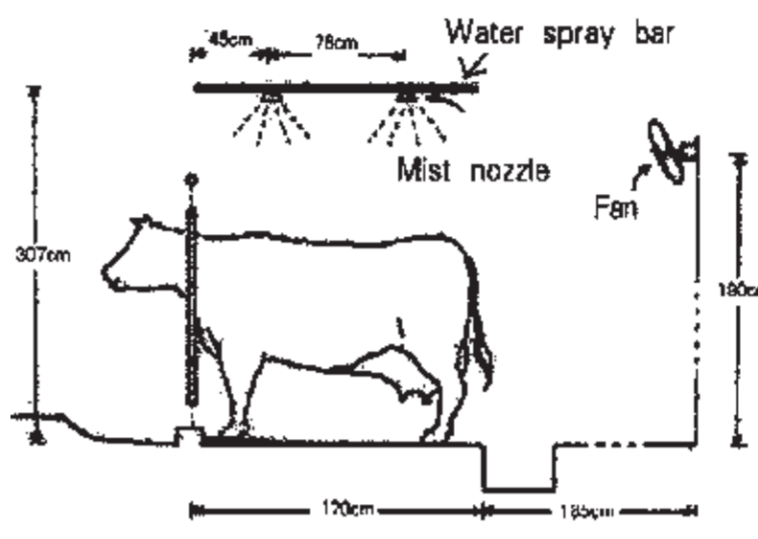


Mehsani buffalo

Original or local breeds are climate resilient and capable of bearing heat stresses and cold waves. These breeds possess area specific resistance power. So, while buying them, this has to be kept in view. They are sturdy and have very good stamina and can walk through long distances for grazing. The milk production can be increased by adopting proper cattle feed and its mix. Milk and ghee of these cows enjoy premium price.



Cattle Shelter Management



Bio-gas plant

Cattle should be housed in appropriate shelter. Such shelter helps to maintain milk yield even during heat waves or cold waves and enhances yield during normal season. The shelter may be housed in covered area. Cattle may be provided clean drinking water as it increases milk productivity. Fans, foggers and sprinklers may be added for cooling during heat waves.

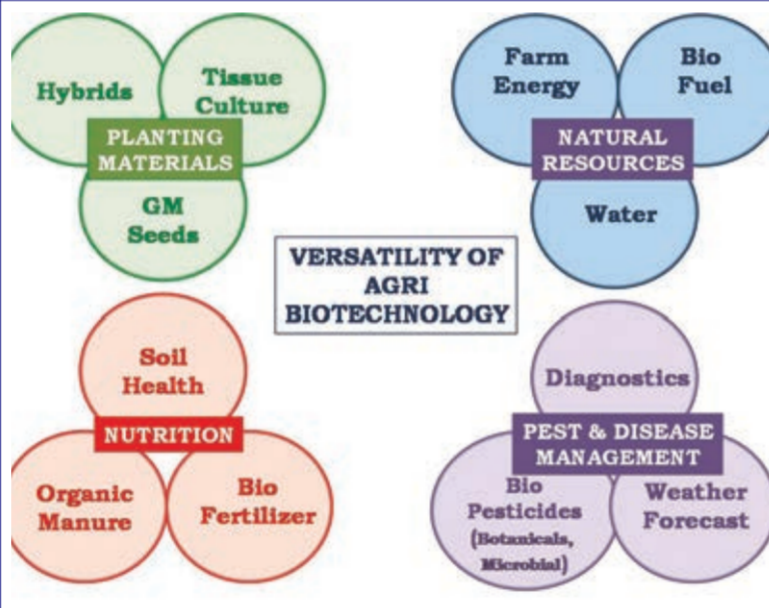
The cattle shed should face East- West with gates and windows in North – South direction. The middle part of shed be kept 15' high and the ends be kept at 10' high and upper part must have air exhaust arrangements. The slope of the floor be towards drain and wood-saw-waste be spreaded over it on regular basis. For each cattle 3m X 1.5m space be provided. Around the shed, the neem (Azadirachta indica), banyan (Ficus bengalensis) trees be planted, which help in cooling the average climate. In case of those animal holders who cannot afford shed or have no land – need to keep buffaloes in community ponds and cows under the trees – preferably Neem Tree, Banyan Tree. They can also take advantage of NAREGA and RKVY to construct community sheds in common Grazing Areas (Gauchar)

Community Biogas Plant is a cooperative endeavour which uses dung for decentralized domestic gas generation for cooking. The residue slurry of bio-gas plant is used as valuable organic manure. It can be converted in vermi compost which can be used in farms or can be sold in packed bags. This helps in mitigation of methane gas. Government subsidies are available for installing community and individual bio-gas plant.



Organic Farming

Organic food and vegetables with high nutritive contents have high value as health products. Organic farming reduces the cost of production through replacing the costly chemical fertilizers. It reduces the green house gas generation. The organic products fetch premium price. The land fertility and micro nutrients are sustained for longer time. Organic farming has dual advantages a) It fosters market demand with premium pricing and b) It helps in sustaining the soil health. But while taking up production, farmer need to keep in view (i) Market chain – for product and (ii) Soil health – whether it is suitable as otherwise it takes long time to become viable.



Bio-technology

Application of biological research on agriculture - Genetically Modified (GM) seeds, hybrid seeds, tissue culture, bio-fertilizer, bio-pesticides improve crop productivity and are climate resilient. Tissue culture provides healthy plants through seedling process with identical size and attributes. It improves farm productivity. It reduces mortality and can be planted once rains arrive and are very good solution for delayed rain. The GM Seeds like BT Cotton – increase the yield and reduce cost by minimal use of pesticides and reduce Green House Gases.



Women Farmer

Women have been working on farm and cattle management along with the household responsibilities. Increasingly they are replacing men who go to work outside and all farming decisions are taken by them. They are new farmers and need to be guided by door-step approach. Moreover, avenues of self-employment can be provided to woman through encouraging Self Help Groups (SHGs) for conducting micro economic activities. The encouragement of micro savings helps in controlling the addiction and bad habits of male members. Women farmers also add value to agro produce through cleaning, sorting, grading etc., making of pickles, papad etc. They take up handicraft – tailoring also which provide additional source of income.



Youth

The rural youth, especially the sons of the land holders – farmers with educational background have started taking interest in high-tech agriculture. They have become the instruments for accepting agriculture as a professional enterprise. Such shift contributes towards entrepreneurship development by taking up micro enterprises. The educated youth with scientific farming can also contribute in extension activities for replacing the traditional farming in their respective areas.