

agMOOCs

Case study in India on the adoption of weather based animal production considering seasonal climate forecast

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Dear students and dear farmers.

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## 7c. Case study in India on the adoption of weather based animal production



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In the case study lesson series in the last two classes you have seen one class for crop management and another one for decision-based management. Now what this class let us discuss how the agro advisory prepared based on weather forecast is going to minimize the risk in animal sites, because animal component also comes under agriculture.

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Case study in India on the adoption of weather based animal production

### **Results - Agromet advisory for foot and mouth disease in milch and draught animals**

- Weather situation: Monsoon season (Rainfall + high relative humidity)
- The sensitiveness of animal is to get viral infection
- The proposed agro met advisory is to get animal vaccinated from near by veterinary hospital or at animal camp.
- The present practice generally prevalent with farmers is local treatment

With these let us move to the next slide there in the argomet advisory for foot and mouth disease in milch and draught animals is studied. It is a case study. This foot and mouth disease is a very, very serious during monsoon season across India and if this disease comes means there is greater loss in milk production from milch animals and the draught animals cannot be used for drawing agricultural implements thereby we lose efficiency from the animals that are being kept at our farm sets.

Now here there is a weather situation. What is a weather situation for this case study? Monsoon season, other than Tamil Nadu and Jammu and Kashmir in all states of India the monsoon season comes from June to September. For Tamil Nadu the monsoon season is October to December wherein we get abundant rainfall. So when monsoon season when rainfall situation occurs along with high relative humidity this is the weather situation being communicated to the farmers. When this weather situation occurs over four months or over two months then the sensitivity of the animal is to get viral infection, that means, the animal is vulnerable to viral infection, virus also abundantly available in the environment.

When animal and virus, vulnerable animal and the virus meet together then the incidence of this foot and mouth disease gets inflated. So the proposed agromet advisory is to go to the veterinary hospital to get vaccinated against this viral disease. When you take the animals to the veterinary hospital they give the vaccination rightly, the animal is being protected. This is a case study taken for this foot and mouth disease that occurs with milch and draught animals.

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Let us see some more case studies also for this animal sector. See, the same situation; monsoon rainfall is there, high relative humidity is present, but the disease is mastitis. The flattening of your udders, milch udders cow, especially milch animals, it gets contaminated with bacteria, this is a bacterial disease. So the teats gets plugged, no milk will come, teats

gets a plugged. So this disease is very common during monsoon season and the sensitivity of the animal, this bacterial contamination domination is very very aggressive during this session. So thereby you will be losing the milk, the total milk against -- suppose your animal gives about the 4 to 5 litres per time means you will be getting only if you 100 ml or one liter milk that with blood test times, so not hygienic good. So it must be treated.

What must be done? A simple solution; before and the after milking you treat the udder before mastitis comes with one percent the potassium permanganate solution, prepare the solution before milking, you clean the udder with this solution and after milking also you clean the udder, thereby we can prevent the disease to get infected with the animal. This is a very very cost effective, inexpensive treatment. So whenever monsoon comes means the agro advisory is being even given to the farmers that you protect your animal from this mastitis disease. These two are related to animals.

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Case study in India on the adoption of weather based animal production  
**Results - Agromet advisory for feed waste in poultry shed**

- Weather situation: Wind speed more than 20 km during day time and prevalence of dry weather
- The sensitiveness of the kept feed to poultry will get drifted and there by reducing poultry feed intake
- The proposed agro met advisory is to screen with sacks on the sides of the cage are to minimise the wind speed with in poultry shelter and also provide enough clean drinking water
- The present practice generally prevalent with farmers is no adaptation strategies to be followed

let us see one example for poultry also. Poultry industry is also getting very important in India so that must be also look it into in terms of agromet advisory based on weather forecast. The situation is wind speed more than 20 kilometre during day time. And also prevalence of dry weather, dry weather means when the temperature may be more than 35 degree centigrade or 32 degree centigrade, no rainfall, dry day, no rain, but the wind is more. This we could see during summer months especially March April and May. So the sensitivity of the poultry is they can't take their feeds enough because though you keep enough feed, since the cage is ventilated the air or wind gets into these cages and the dips drips you are put, kept for poultry. They say that about 30% of the food is being drifted by the wind that enters into the cage. So what should be done whenever the wind speed is more than 20 kilometre, whenever there is a prevalence of dry day and this forecast is given to the poultry farmers then they must do is cover the cage, cage means hunter bars cages or the poultry shed cover the poultry shed or screen the poultry shed with sacks on the sides so that you are blocking

the wind to be entered into the cages so that the feed is not drifted away from the cages or the poultry shed so that the enough feed taken by the animal.

The present practice generally prevalent with the farmer is no adaptation strategies. Because they are not bothering about the loss of feed being taken by the wind, but this must be considered. So these are the some few examples I have discussed them for this poultry also. So far we have seen the case studies for crop management with reference to weather forecast and agro advisory and also insect and pest disease management and also poultry. In the next class we will see the economical analysis for these case studies that is being studied by us. That is very important. Economical benefit is always very very important to accept or do not accept your agro advisories that will be discussed in the next class. Thank you very much for your key attention. Thank you.