



# IMPROVED REPRODUCTIVE MANAGEMENT IN DAIRY CATTLE

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## A SUCCESS STORY OF DAIRY FARMER ADOPTING IMPROVED REPRODUCTIVE MANAGEMENT IN REPEAT BREEDING CATTLE

**Authors:** Dr. Gokuldas PP, Senior Scientist (Animal Reproduction)  
Dr. Udharwar, S.V, Subject Matter Specialist (Animal Science)  
Dr. Shirish D. Narnavare, Senior Scientist (Veterinary Pathology)  
Ms. Vedika V. Kudalkar, Young Profesional-I  
Dr. Amiya R Sahu, Scientist (Animal Genetics and Breeding)  
Mr. Rahul Kumar, Subject Matter Specialist (Agronomy)  
Dr. Bommayasamy, N., Sr. Scientist & Head, KVK North Goa

### PROBLEMS/CONSTRAINTS

Repeat breeding is a major reproductive disorder, particularly in crossbred cows. This condition leads to delayed pregnancy which can negatively affect reproductive performance and productivity. It is often caused by factors like nutritional, hormonal imbalances, infections. Mr. Gyanheshwar Karbotkar, a dairy farmer from Bicholim, faced this problem in his crossbred cattle. Cows would repeat estrus for more than 3 cycles resulting in low milk production and an estimated annual revenue loss of Rs. 23,000 per cow. In addition, added cost of feeding repeat cows further strained farmer's resources.

### INTERVENTIONS

ICAR-CCARI, Goa has developed a Nutri-Hormonal Therapy that targeted nutritional and hormonal imbalances in repeat breeding cattle. Therapy consists of two key interventions of rumen-protected fat supplementation and targeted exogenous hormonal treatment. After confirming non-infectious cases of repeat breeding, cows were supplemented with bypass fat for 45 days starting from the observed estrus, and AI was performed on next estrus, followed by human Chorionic Gonadotropin (hCG) injection on the seventh day. Fat supplementation helps to shift the energy balance to a positive stage and hCG can induce accessory corpus luteum which in turn helps in improving progesterone levels and thus can support pregnancy through successful embryo development during the critical early pregnancy period.

### IMPACT

Interventions led to significant improvements in reproductive efficiency of the herd. Three among four cows conceived and successfully delivered healthy calves. Overall pregnancy rate was 75% and this resulted in significant increase in milk production up to 90% and minimized management and feed costs. Farm witnessed average returns of Rs 36,000 per cow compared to the untreated repeat breeding cows. This success led Mr. Gyanheshwar to continue using the therapy for other cows in his farm, and encouraged neighboring farmers in the village to adopt the same approach for managing repeat breeding caused due to non-infectious etiology. Following Mr. Karbotkar's success, technology was adopted by other farmers in the village. Four more farmers reported successful outcomes with improved conception rates and increased milk yields, demonstrating the broad applicability and effectiveness of nutri-hormonal therapy. It has proven to be an effective solution for overcoming repeat breeding, especially those cows suffering from negative energy balance and hormonal deficiencies.

