



Case study: The Vache du Faso Project

Areas of work

Monitoring & Learning

Themes

Learnings

The Vache du Faso (VdF) Project was implemented in Burkina Faso in 2016 and lasted three years. Funded by the Bill & Melinda Gates Foundation, Ceva Santé Animale set out with a mission to produce a hardy cattle breed that could yield more milk. The aim of the project was to perform artificial inseminations (AI) using semen from Tarentais and Montbéliard bulls on 5,500 local zebu cows to produce crossbred calves adapted to the harsh local context with the added advantage of higher milk production capacity for females.

The project was centred around the technical realisation of mass AI of transhumant and peri-urban herds in the Bobo Dioulasso region at a fixed time, which was possible through oestrus synchronisation using a hormonal protocol. The 34% conception rate, confirmed by undertaking pregnancy diagnosis using ultrasonography at 42 days post-AI is an impressive result for an extensive transhumant context, as it is comparable to results obtained in Europe. Ear-tagging of cows and training of a data collection team made it possible to track data for each individual cow at each stage of the process from synchronization, insemination, gestation, calving to the neonatal phase for calves. The wealth of data enabled a very detailed analysis to be undertaken to identify the variables which statistically improved the probability of pregnancy:



Farmers with their tagged crossbred calves. Photo: CEVA.

Exclude cows 10 years or older from the program

Focus the program on farms with a management system compatible with AI (i.e. more peri-urban or non-transhumant herds)

Use of full oestrus synchronisation protocol with progesterone, prostaglandin, PMSG and GnRH

Results are better if AI is performed by expert technicians, in a disease-free environment (one of the AI campaigns coincided with an FMD outbreak and this made conception rates plummet dramatically)

Results are better if AI is performed in cows showing overt signs of oestrus and which are easy to inseminate (easy to detect the cervix by palpation)



A senior AI technician performs artificial insemination on a local zebu. Photo: CEVA

The 2,242 pregnancies resulted in 1,575 calvings, with a 5% twinning rate and 1,655 viable crossbred calves. Hence, overall, 23% of inseminations resulted in viable calves, which is lower than results in Europe. The 30% loss rate following positive pregnancy diagnosis was attributable for the most part to abortions, to a lesser extent to perinatal and neonatal mortality and due to non-reporting for the birth of male calves as the project practiced a tagging policy to prevent farmers

using these males as breeding bulls (see full report for justification). The high rate of abortions was mostly due to suboptimal nutritional status due to the extreme climatic conditions and lack of grazing, which is compensated in this region by the practice of transhumance, but this places additional physiological stress competing with pregnancy.

Ceva's experiences with VdF have allowed them to reflect on the critical steps that lead cattle genetics projects to success.

Learn more:

Learning brief: [Vache du Faso Learnings Brief](#) (PDF)

Full project report: [La Vache du Faso: Improving milk production in Burkina Faso](#) (2023).

Are there lessons that are transferable to other species?

In parallel with the VdF project, Ceva also piloted a program called Poulet du Faso, which explored the best genetic and healthcare options to enable small-scale farmers to produce more from their scavenging chickens. Sasso chickens were considered ideal as they are dual purpose (less selected than broiler or layer genetic lines), and are better adapted to free ranging or less intensive systems of poultry production. To ensure the chickens were locally acceptable, the project aimed to create a new crossbreed that retained the favourable characteristics of the local *Poulet bicyclette*, while incorporating the enhanced reproductive potential of Sasso breeders. And so, the *Poulet du Faso* was created.

Read more about Poulet du Faso and learnings from both projects.

Case study: Poulet du Faso