

Taking control: tackling sheep and goat plague



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Small ruminants – sheep and goats – are a vital asset for many of the world’s poorest livestock keepers and are reared in large numbers by pastoral communities. However, according to the UN Food and Agriculture Organization (FAO), 80% of the world’s 2 billion small ruminant population in Africa, the Middle East and Asia are threatened by a disease known as Peste des Petits Ruminants (PPR). First discovered in 1942 in Côte d’Ivoire, this virulent disease has since spread to over 70 countries and many more remain at risk, particularly with the movement of animals by pastoral communities. Once introduced, the PPR virus can infect up to 90% of a flock or herd and is fatal to up to 70% of infected animals.

Another similar viral disease affecting sheep and goats is known as Sheep and Goat Pox (SGP), which has a mortality rate of about 50% and equally presents a significant loss for any livestock keeper.

Vaccines for both PPR and SGP are available but their use has been predominantly limited to governments vaccinating livestock once an outbreak occurs. However, this does not prevent fatalities and farmers therefore lose infected herds and flocks. Even when animals do not die, they lose weight, milk yields fall and their market value is reduced. There is no treatment for infected animals and vaccination is the only way to prevent and reduce the incidence of these serious small ruminant diseases. Despite the value of their animals, and the devastating effects of these two diseases, livestock keepers do not routinely vaccinate their livestock to prevent serious losses occurring.

“When PPR was first reported in Uganda in 2007, an estimated 700,000 goats and sheep died,” says Chrisostom Ayebazibwe, senior veterinary officer in Uganda’s Ministry of Agriculture, Animal Industry and Fisheries (MAIF). “Since then there have been regular interventions to avoid another major epidemic. But, we still estimate that around 10% of sheep and goats are dying quietly from PPR. Many more poor livestock keepers are affected by SGP, which often goes unreported. We need to do a lot of work to assist the populations that keep these small ruminants.”

To help raise awareness about the two diseases and the need for routine vaccination, the Global Alliance for Livestock Veterinary Medicines (GALVmed) is working with partners in various countries to sensitise pastoralist communities and other livestock keepers. This is no easy task when livestock keepers are used to governments vaccinating their animals for free. “Our challenge is to inform livestock keepers so that they can take control of their own livelihoods; if they routinely vaccinate their animals then outbreaks will not take hold and losses will be reduced,” says Abdallah Said Twahir, GALVmed’s Director of Market Development and Access.

“Two-for-one”

GALVmed, a not-for-profit organisation that works with partners to make livestock vaccines available and accessible by smallholder farmers, is supporting the wider availability of a combined vaccine for PPR and SGP developed by the Moroccan animal health company, M.C.I. Santé Animale. MCI is the only vaccine manufacturer worldwide to produce and register a combined PPR/SGP vaccine. The combined vaccine will provide protection against both diseases and will be made available through government vets, private vets and agroveter shops at a fee. Farmers will be able to purchase the vaccine to protect their livestock against PPR or SGP.

In 2015, Ayebazibwe reports that vaccine trials of the MCI combined PPR/SGP vaccine - LYOPOX-PPRTM were launched. In Moroto, Karamoja, north-eastern Uganda, 700,000 sheep and goats were vaccinated along with 30,000 in Sembabule, central Uganda. “Karamoja is a hot spot area for PPR,” states Ayebazibwe. “This is where the first PPR outbreak was reported. It is a pastoralist area and there is a lot of cross border movement of animals.”

Livestock keepers have greatly appreciated using the combined vaccine. Farmers reported that livestock are healthier and they would like a continuous vaccination programme. In Karamoja the vaccination has been free. This is because livestock keepers have few resources and reducing the disease in the region is a national priority. However in Sembabule, MAIF is exploring cost-sharing with the private sector, whereby farmers pay a small fee for the vaccine. “The cost of the vaccine per animal is around US\$1,” Ayebazibwe says. “This is still a lot of money for most farmers, particularly women and young people who own just a few sheep and goats to help with household expenses. But in regions like Sembabule, where a goat can be sold for up to US\$30, farmers are better able to afford veterinary and vaccination services.”

One way to encourage communities to purchase the combined vaccine to protect their livestock is to target opinion leaders, states Twahir. “If we can convince commercial farmers to vaccinate and an outbreak occurs, others in the community see that their animals have not been affected and uptake becomes much better.” He adds that, “Government priorities change over time and livestock keepers cannot rely on government regularly providing free vaccination services. With a private sector approach, farmers can choose to protect their animals and control their livelihoods. This approach allows for the sustainability of distribution of the combined vaccine”

The LYOPOX-PPRTM vaccine is registered in Morocco and awaits marketing authorisation in several countries where registration dossiers have already been submitted and accepted by regulatory authorities. These are the UEMOA centralised registration (grouping of eight Francophone West African countries), Kenya, Tanzania and Uganda. In Uganda, following the positive response from livestock keepers and communities to MCI’s initial 100,000 doses, the government and FAO have ordered further supplies of the combined vaccine. “We have the capacity to supply at least 135 million doses per year,” says Baptiste Dungu, head of MCI strategy business development. “The project with GALVmed to prime the market has been very useful in creating awareness and triggering more use of the combined vaccine. We hope to expand on this approach.”

