

VACCINATION SPECIAL

## The importance of using vaccines

Many communal livestock owners realise the importance of vaccination, but a large number are unsure of how to use it to improve the health of their animals, says **Zimbini Mdlulwa**, a researcher at the Agricultural Research Council.

About 70% of Africa's rural population own livestock. More than 200 million rely on their livestock for income, draught power and fertiliser for crops. According to the Department of Agriculture, Forestry and Fisheries (DAFF), rural communities own approximately 40% of all livestock in South Africa. Animals can contract many diseases, and vaccination is a cost-effective way to prevent these and improve the efficiency of food production. However, many small-scale farmers in South Africa are unable to use vaccines effectively.

### A CASE STUDY

A recent study conducted by the Agricultural Research Council (ARC) and the Human Sciences Research Council (HSRC) on 593 communal livestock farmers across five provinces provides new information on the animal health care practices of communal livestock farmers.

While these farmers know the importance of vaccinating their animals, approximately 65% said that, apart from receiving free vaccinations from government, they paid for others out of their own pocket.

They also understand how the cold chain functions, and 49% said they prefer vaccines that require refrigeration as this extends the vaccine's shelf life and efficacy. Many also said that they already followed vaccination programmes, but 68% confessed that they did not know enough about vaccines, with some

farmers confusing antibiotics with vaccinations.

Sixty-six percent of the farmers also acknowledged that vaccines were readily available, while 85% said that they were too expensive.

### VACCINE AFFORDABILITY

DAFF's South African Veterinary Strategy (2015 to 2020) shows that access to and availability and affordability of veterinary services in this country is skewed towards urban dwellers. The veterinary strategy promotes regular contact between farmers and veterinarians.

The ARC/HSRC survey revealed that 18% of the farmers contacted animal health practitioners every week, while 17% said they contacted animal health practitioners every month. Seventeen percent said that they contacted these practitioners



ABOVE: The high cost of vaccines is often a barrier to smallholder farmers.

every quarter, while 28% said that they contacted these practitioners once a year.

Twenty percent said that they contacted these practitioners only at certain times, mostly on dipping, vaccination and information days.

These farmers indicated that they needed training on primary animal health care, vaccines and vaccine use. They also asked for assistance with animal handling facilities such as crush pens, dipping tanks and loading ramps.

Vaccines are available at agricultural co-ops, hardware stores, local wholesalers and general dealers.

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## The difference between vaccines and antibiotics

A micro-organism or microbe is a microscopically small organism. Fungi, bacteria and viruses are micro-organisms.

An antibiotic, from the Greek word *biotikos*, which translates as 'fit for life', is a medicine intended to kill harmful bacteria. Antibiotics are used to treat illnesses in humans and animals.

A vaccine, on the other hand, provides immunity to a specific disease. Many contain weakened forms of the disease that forces the body's immune system

to recognise the micro-organism as a threat and destroy it. Unlike an antibiotic, most vaccines cannot be used to treat an illness once the animal is infected, and is mostly used to prevent infection.

Farmers vaccinate their herds to prevent their animals contracting a particular viral or bacterial strain. However, an animal may become sick even if it has been vaccinated.

Antibiotics are not effective against viral infections, and vaccines are usually the most efficient way in which to prevent infection.