

Agriculture (growing crops and keeping animals for food) is an important part of the South African economy. However, the herds of cattle, sheep, goats and horses are constantly under attack from diseases. These are caused by pathogens (disease causing micro-organisms) such as viruses, which infect animals, causing them to die or to spread the disease, which loses a lot of money.

Who can help us in the battle against micro-organisms that harm our livestock?

The Veterinary Virologist!

Meet Theresa Smit,

Virology Research and Development Manager

at Onderstepoort Biological Products in Pretoria

BSc (Laboratory Medicine),

BSc Hons (Influenza),

MSc (Simian Immunodeficiency Virus (SIV),

PhD (HIV/Aids)

... the challenge of the job:

"Working against the clock. Research is time-consuming, and the pressure is always on to get vaccines out there quickly."

...a common misconception about the job:

"Many people overestimate the amount of time I spend with animals. Most of my job is spent in a laboratory and I don't spend as much time with animals as a Vet."



What does Theresa do?

Theresa researches and develops new or improved vaccines against diseases of livestock animals. A vaccine helps to stimulate the defence response of the body. It is usually a dead or weakened version of a micro-organism given to an animal to stimulate their bodies to make specific antibodies - but without causing disease. This means that if the animal is infected with the disease, it is able to resist and survive.

Onderstepoort Biological Products (OBP) makes millions of doses of vaccines per year that can be used to keep horses, cattle and sheep, healthy. Theresa ensures that the vaccines made are of the highest quality.

What do I need to be a veterinary virologist?

Characteristics: Versatility, analytical mind, good at problem solving

Important school subjects:

Biology, Mathematics, Physical Science

Qualifications:

B Tech – Veterinary Technology; BVSc; BSc - Veterinary Biology/Virology/ Microbiology/Molecular Biology or similar, BSc (Hons)

Note: You need an MSc or PhD (Research) or MMedVet or DVSc for higher positions in lecturing, research and management of laboratories or departments

Where can I get a job as a veterinary virologist?

Animal disease diagnostic laboratories, pathology laboratories, universities,

agricultural research organisations, private animal vaccine producers such as Onderstepoort Biological Products

Related careers:

Laboratory Veterinarian, Veterinary Bacteriologist, Veterinary Pathologist, Veterinary Laboratory Technician, Vaccine Production Technologist, Immunologist