

New skills training for final year vet students serves the agricultural needs of South Africa

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In 2018 the Faculty of Veterinary Science at Onderstepoort embarked on enriching the skills base of newly qualified veterinarians by developing a one-week training course to diagnose bovine tuberculosis and brucellosis. These are important state controlled diseases of cattle which also affect many wildlife species (I.e. buffalo, lions). In 2019 this training course has been well established and we look forward to being able to present it to external trainees in 2020.

The so-called intradermal tuberculin test (skin test) is the official prescribed test method which requires well trained veterinary personnel and dedicated equipment to perform the test procedures during two visits to the cattle herd, 3 days apart. The successful execution of this test will require an exceptionally diverse skill set. Due to the many biological variables that can influence the interpretation of this test, veterinarians need to rely on a thorough understanding of the underlying disease process and immune responses. The veterinarian must develop a fine tuned clinical observation skill to evaluate the health of the individual animals, the history of the herd, interaction of other disease conditions together with sometimes subtle changes in the animal's reactions to the skin test.

Lectures by experienced staff and state veterinarians ensure students acquire a good theoretical understanding of the underlying disease mechanisms, testing equipment, the test responses, their correct interpretation and the relevant legislation. Students are given the opportunity to first hone their skills in the correct handling and maintenance of the equipment during a hands-on approach in the Faculty's new Skills Development Laboratory. The students also use specifically designed skin models that simulate various skin test responses. This first exposure in the skills laboratory helps students to develop confidence and facilitates deeper learning which was clearly visible during the field training.



Two field visits to communal herds provide an ideal opportunity for extending a supporting hand to participating communities and Veterinary Services and for students to interact with the farmers, gain confidence in the use of the equipment and hands-on application of all newly acquired testing skills. The students also have the opportunity to draw blood from animals for brucellosis testing.

We are confident that this new training experience makes a significant contribution to the skills set and confidence of our newly qualified veterinarians and in their future role in the control of these diseases of national importance.



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