

# North West farmers warned of bovine infections through multidrug-resistant bacteria

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Livestock farmers in the North West province are being urged to apply all possible security measures and avoid the introduction of new bulls without sanitary control. This is necessary to prevent the spread of a bacterial infection that causes abortion, infertility and other reproductive ailments in cattle - and could potentially be passed into the human food chain.

The warning comes from Dr Tshipamba Mpinda Edoard of the North-West University's (NWU's) Faculty of Natural and Agricultural Sciences. He recently conducted a study to investigate the incidence of the bacteria *Campylobacter fetus* subsp. *fetus* and *Campylobacter* subsp. *venerealis* involved in bovine genital campylobacteriosis infections.

*Campylobacter fetus* subsp. *venerealis* is associated with infertility, early embryonic death and abortion, while *Campylobacter fetus* subsp. *fetus* is associated with sporadic abortion in cows and sheep.

The study was conducted in the Dr Ruth Segomotsi Mompati District and entailed testing 258 sheath wash samples obtained from bulls in the Mamusa, Mulopo, Naledi and Tshwaing municipalities.

"During the investigation, two bacteria which are known to be the cause of bovine genital campylobacteriosis, as well as sporadic abortion in cattle and sheep, were detected," Dr Edoard says.

"Furthermore, the detected bacteria were subjected to an antimicrobial test using the disc diffusion method and the results revealed that most of the isolated bacteria were multidrug-resistant. The resistance was mainly observed against tetracycline, erythromycin, chloramphenicol, ciprofloxacin, enrofloxacin, ampicillin and nalidixic acid."

He says the presence of these two bacterial subspecies may negatively affect the beef industry. Adding to the animal health challenges posed by these bacteria is their multidrug-resistant profile.

"This could also pose a risk for public health, as these microorganisms, especially *Campylobacter fetus* subsp. *fetus*, might be transferred to humans via the food chain. If that happens, *Campylobacter fetus* subsp. *fetus* may cause a foodborne pathogen," adds Dr Edoard.

"Farmers across the North West Province should apply sanitary measures and avoid the introduction of new bulls without sanitary control."

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