



Clean hands, boots, an overall and a hairnet can lower the risk of infection in the milking parlour

The principles of **biosecurity**

by Liza Burger

Biosecurity is the protection of the animal and plant life on your farm or land. Biosecurity is very important on farms, especially on dairy farms and farms where livestock is kept. Biosecurity is all about healthy workers, healthy animals, hygiene and security systems.

Dr Chris van Dijk, a veterinarian and specialist in dairy herd health, says that the danger of breaching the biosecurity on your farm, often lies in the things we cannot see. For example, when you buy a new heifer, that heifer has probably not been tested for different diseases and is not always put in quarantine before she joins the rest of the herd.

Diseases such as infectious mastitis should not become a normal part of your farming operation. The three pillars of your farm, according to Dr Van Dijk, are the management of animals, people and programmes.

People are carriers of diseases

Very often visitors to your farm unknowingly spread diseases from farm to farm. In some countries it is normal practice for visitors to intensive farming operations, to put on plastic shoes over their normal shoes. This is especially applicable to veterinarians and representatives who visit a number of farms every day or week.

In South Africa we do not have this measure of control yet. But you can make a great difference by learning the principles and teaching your colleagues and workers the importance of biosecurity. You will be able to monitor your own actions and those of your visitors.

Put up "No entrance" signs at the entrance to areas where you do not want visitors to go. Your visitors must adhere to these signs, whether it is your family, friends or the veterinarian visiting your farm. Also put up information boards which set out the biosecurity measures on your farm. Place these boards at all entrance gates. If possible, do not allow large groups of people to visit your farm.

Get your amenities in order

Bathroom basins, overalls, gloves and rubber boots should all be used by workers. At the same time you still need to apply normal hygiene practices in the milking parlour. The same amenities and protective wear must also be available for visitors. If you can afford it, spend some money on boots and disposable gloves for visitors. This will prove to be money well spent.

Have rubber boots ready for your visitors, even if they have their own rubber boots. Diseases which breed in manure and mud, are often carried from farm to farm on the soles of shoes. You can place footbaths in certain areas, with signs telling the visitor to pass through the footbath. Footbaths can be very effective if they are used in the correct way and in the correct places.

Vehicle control is just as important. Trucks or bakkies transporting fertiliser or feed, move between many farms and pick up invisible pathogens (bacteria and viruses causing disease). Designate a specific parking and offloading area for visitors, and indicate it with a sign.

Learn from others

In the pig and poultry industries, biosecurity is already an integral part of commercial farms. Workers and visitors to those farming operations often have to shower and put on other clothes

before they are allowed to come in contact with the animals. All employees and management must follow those rules.

On farms with truly strict biosecurity measures, the whole operation is fenced in, access control is applied (gate security and visitors' books), and all traffic (humans and vehicles) is monitored. Delivery vehicles for delivery of meat, are washed and footbaths are placed in strategic areas.

When animals are inspected, the younger animals have their turn first. This is because older animals can transmit diseases to younger animals with a weaker immunity.

Prevent diseases among calves

Of all the animals in your herd, the calves are the most vulnerable, especially in the first four weeks of their life. A calf that does not drink the recommended amount of colostrum (first milk), is 74 times more likely to die. A good feeding programme and well-planned, clean housing will help to keep calves healthy. Here workers play a very important part.

Workers who feed calves their colostrum from bottles and later on give milk from a feed bucket, must sterilise the feed equipment and should not use the same equipment for different calves. Also keep calves' equipment separate from the rest of the herd's. Feed and calf medicines must be stored separately and calf handlers must have their own basins and showers.

Test for diseases

Animals must be tested regularly for diseases. Sick animals must be separated from healthy ones immediately. Give treatment as soon as possible and do not allow a sick animal back into the herd.

New animals must be kept separate from the herd and must be tested for diseases by the veterinarian. Do not try to do examinations yourself.

When animals are moved from one location to another, the stress related to the relocation may cause the animals to be more susceptible to diseases. Use this time to introduce the cow to her new surroundings and to get used to her new handlers (the workers). If your animals are taken to a show, the handlers at the show must disinfect their boots and overalls when they return to the farm.

New animals that are bought to expand the herd, must be bought from a source that you know and trust. Every new animal should have a proper record and certificate declaring it disease-free. If the seller cannot give you these documents, do not buy the cow. It may cost you a lot of money in the long run.

A quarantine period should be three to four weeks long. The isolation area must be at least 10 metres away from the milking parlour and the rest of the herd. Isolation also means that the equipment used for these animals, can be used **ONLY** for the isolation area. The area must have its own drinking and feed troughs as well as handling equipment. Workers from the isolation area may not come in contact with the rest of the herd.

Paint the equipment used in the isolation area in a different colour than the rest of the farm's equipment. Remember that semen and embryos can also carry diseases. So be sure that you purchase semen from a reputable genetics company.

Keep diseases at bay

The invisible gate and fence that has to keep diseases off your farm, is erected by a proper, well-structured immunisation programme. Dr Van Dijk recommends that you compile a herd health programme together with your veterinarian.

Certain diseases are endemic (which means that they can occur everywhere), while others are limited to certain areas and seldom occur in other areas. A good vaccination programme can prevent diseases carried by new animals to infect the whole herd. It will also serve to prevent and protect the herd against outbreaks of other diseases.

Biosecurity at a glance

The following is an example of basic biosecurity measures that you can put on a sign post or board. Place the sign in more than one strategic place or at the main entrance to your farming operation:

BIOSECURITY – PLEASE READ CAREFULLY AND ADHERE TO ALL RULES

- No visitors allowed without an appointment
- All visitors must complete the visitors' book
- No vehicles allowed beyond the visitors' parking area
- No visitors allowed in areas marked "No entry"
- Please pass through all footbaths in marked areas
- Put on plastic gloves supplied at the entrance to the milking parlour
- No smoking, eating or drinking is allowed in the milking parlour

BIOSEKURITEIT – LEES ASB VERSIGTIG EN KOM ALLE REËLS NA

- Geen besoekers toegelaat sonder 'n afspraak nie
- Alle besoekers moet die besoekersboek voltooi
- Geen voertuie buite die besoekersparkering nie
- Geen besoekers in gebiede gemerk "Geen toegang" nie
- Loop asb deur voetbaddens in gemerkte areas
- Dra asb die plastiese handskoene wat by die ingang na die melkstal voorsien word
- Geen rook, eet of drink word in die melkstal toegelaat nie

POLOKEHO - O KOTJWA HO BALA KA HLOKO MME O IKAMAHANYE LE MELAO YOHLE

- Ha ho baeti ba dumeletsweng ntle ho tumello
- Baeti bohle ba tlameha ho ingodisa bukeng ya ngodiso ya baeti
- Makoloi ha a a dumellwa ho tshela sebaka se hlwailweng sa ho paka makoloi
- Baeti ha ba a dumellwa ho ba dibakeng tse tshwailweng : " Ha ho kenwe"
- O kotjwa ho feta le dibakeng tsohle tsa batsamai ba maoto tse tshwailweng
- Kenya dikausu tsa matsoho tsa polasetiki tseo ho fanwang ka tsona ha o kena sebakeng seo ho hamelwang ho sona
- Ha ho tsujelwe, ha ho jelwe kapa hona ho nwellwa ka hara sebaka sa ho hamela

UKHUSELEKO LWEZILWANYANA - NCEDA UFUNDE NGOCOSELELO UZE ULANDELE YONKE IMIGAQO

- Azivunyelwanga iindwendwe ngaphandle kwedinga
- Zonke iindwendwe ziyacelwa ukuba zibhalise kwincwadi yeendwendwe
- Akukho zithuthi zivumelekileyo ukuba zigqithe kwindawo yokupaka iimoto zeendwendwe
- Iindwendwe azivumelekanga kwiindawo ezibhalwe "Akungenwa"
- Nceda ugqithe kuzo zonke iindawo zokuhlamba iinyawo kwiindawo eziphawuliweyo
- Nxiba izogqumi-zandla zeplastikhi ezinikwa ekungeneni kwale ndawo yokusengela
- Akuvumelekanga ukutshaya, ukutya okanye ukusela ngaphakathi kwale ndawo yokusengela

UKUVIKELEKA KWEZEMPILO - SICELA UFUNDE NGOKUCOPHELELA BESE UNAMATHELA EMITHETHWENI

- Akukho zivakashi ezivunyelwayo zingabekanga sikhathi sokuza
- Zonke izivakashi kudingeka ukuthi zigwalise ibhuku lezivakashi
- Akukho zimoto ezivunyelwe ngale kwindawo yokupaka izivakashi
- Akukho zivakashi ezivunyelwe ezindaweni ezimakwe ngokuthi "Akungenwa"
- Sicela udlule kuzo zonke izindawo lapho okugezwa khona izinyawo ezindaweni ezimakiwe
- Faka amagilavu epulasitiki owanikezwa esangweni uma uya endlwaneni yokusengela
- Akubhenywa, akudliwa futhi akuphuzwa endlwaneni yokusengela [UM](#)