

Buffalo fly control

Buffalo flies are a serious problem for the Queensland dairy industry. In heifers the main loss in production is due to reduced growth as feed intake is reduced with fly irritation. Reduction in growth in dairy heifers can lead to reduced production and reproduction performance.

Other costs of buffalo flies include:

- extra handling needed for treatments
- insecticide costs
- equipment and facilities required for treatments.

Hide damage is common because buffalo flies cause irritation which leads to self-inflicted wounds. Damaged hides are downgraded in the leather processing industry and represent a loss to the industry. Buffalo flies also transmit stephanofilaria worms, which are responsible for the characteristic raised edge, raw lesions on the cattle. A heavy infestation of buffalo flies may result in hairless, irritated areas around the eyes of cattle and an increase in the incidence of blight.

External parasites need to be properly managed to prevent effects on animal performance and to avoid animal welfare issues. Best practice aims at achieving this through correct management with minimal pesticide usage to avoid residues in milk or meat and risk of development of chemical resistance in parasites.

Control in heifers

Controlling buffalo flies on heifers involves the same treatment program as the milking herd. The heifers should be treated at the same time as the milking herd to achieve maximum control on the farm. It is also advisable to coordinate with neighbours and treat on the same day where possible.

Chemical and non-chemical control options are available.

Non-chemical control

It is important to avoid chemical use where possible. Fly control without chemicals such as buffalo fly traps, encouraging dung beetles and tolerating some fly burdens will help to minimise resistance problems and reduce possible residue risks. Dark coated heifers and those in poor condition usually attract the heaviest infestations of buffalo fly. One strategy is to consider culling highly sensitive cattle.

Buffalo fly traps can be used with great success as some designs remove up to 90% of the flies from the cattle as they walk through the trap.

Dung beetles can also reduce the buffalo fly breeding success by burying and spreading the cattle dung. Other benefits of dung beetle activity include:

- improvements in soil structure
- nutrient recycling
- soil aeration
- penetration of water and grass roots
- improving habitat for earthworms.



The buffalo fly (*Haematobia irritans exigua*).



Buffalo flies can cause lesions on cattle.

Chemical control

An effective buffalo fly control program requires a strategy that will give maximum control with the least number of treatments to reduce the:

- risk of developing resistance
- chemical residue levels in the environment.

Delay treatment

Where chemical control is necessary, it is useful to monitor fly numbers. Treatment should be delayed until fly worry is obvious on the cattle that are most susceptible to the flies or when cattle are carrying more than 200 flies per animal (100 per side).

Self applicators

The costs of handling cattle, particularly heifers that are not regularly yarded are often underestimated. To reduce the time and money spent on cattle treatment and handling, self treatment methods should be considered. These include the various 'backrubbers' and dusting appliances.

Ear tags

Another option is to use ear tags during the peak buffalo fly season. Consider alternating tags of different chemical groups each year or every second year. Alternating the chemical groups may slow the onset of resistance of flies to the chemicals. Use sprays or pour-ons before the peak season so that the effective life of the eartag covers the worst of the buffalo fly season.

Care for dung beetles

Some chemicals that are used to treat buffalo flies kill dung beetles. Treatment of buffalo flies with these chemicals should be particularly avoided in the spring when the dung beetles are first emerging. Dung beetle populations are most vulnerable to losses from chemical use at these times.

Coordinate parasite treatments

Coordinate buffalo fly treatments with other parasite control treatments to reduce the number of chemical treatments applied specifically for buffalo flies. Research in America showed that a treatment for internal parasites with a macrocyclic lactone in late autumn hindered the development of resistance in the buffalo flies to the routine treatments.

All treatments require adequate facilities and equipment that will allow the safe and effective treatment of heifers. These facilities and equipment need to be maintained in working condition.

Chemical labels

Withholding periods

Avoid chemical residue problems by reading the product label carefully and strictly adhering to withholding periods.

Application rates

Correct application of chemicals is essential in controlling the development of insect resistance. Failure to observe the directions in regard to application rates or methods will lead to the application of sub-lethal levels of active ingredient, which may select for resistance in buffalo flies. Overdosing with chemicals is also to be avoided in heifers.

Safety precautions

Always read the label carefully and use the products only as directed and follow all safety instructions for the handling of chemicals and the disposal of unwanted chemicals and containers.

Source: Queensland Department of Agriculture, Fisheries and Forestry; 2009