BUFFALO FLY INFORMATION SHEET

Buffalo fly

- **High numbers of buffalo flies reduce weight gains and milk production.**
- **Treat beef cattle when fly numbers exceed 200 flies per animal or when some animals start to show significant irritation ('fly worry').**
- **Treat dairy cows when fly numbers exceed 30 flies per cow.**
- **Delay chemical treatments at the start of the season until fly numbers reach these levels to reduce selection for pesticide resistance in buffalo flies**

Buffalo flies are small grey biting flies, similar in appearance to house flies, but about half the size. They have strong biting mouthparts enabling them to feed on cattle. The mouthparts are visible when the flies are at rest. In northern Australia buffalo flies can be present in large numbers making them a serious pest. Cattle can become extremely irritated by biting buffalo flies and respond with vigorous tail flicking, head tossing and sometimes kicking to shift flies away from ventral parts of the body. Buffalo fly feeding can have welfare impacts including blood loss and the development of lesions (Figure 1). They also have a significant negative impact on weight gains and milk production.

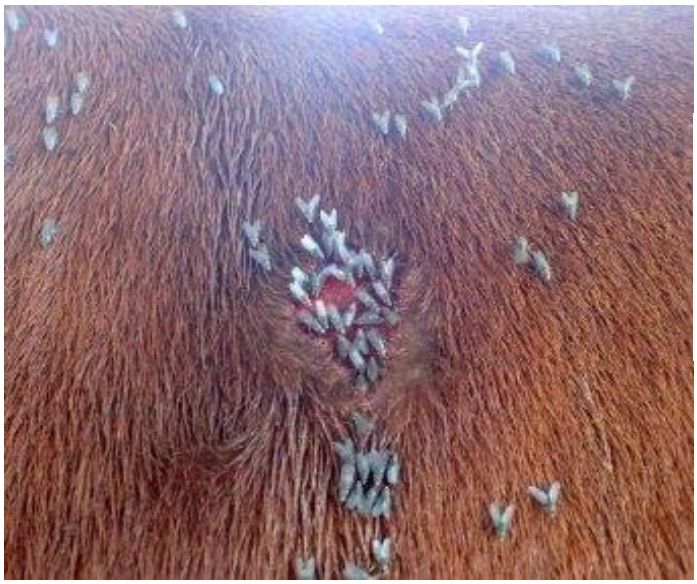


Figure 1. Buffalo flies and associated skin lesion. Image courtesy of Jess Morgan, Department of Agriculture and Fisheries

On properties where buffalo flies are present in high numbers, chemical treatments are essential for control, however in low numbers they do not cause sufficient economic loss to justify treatment.

It is generally accepted that treatment of beef cattle is economically justified once fly numbers exceed 200 flies per animal or when some animals start to show significant irritation ('fly worry'). For dairy cattle the treatment threshold is somewhat lower than for beef cattle, treatment should be considered for dairy cows when fly numbers exceed 30 flies per cow.

The application of chemical treatments should be delayed at the start of the season until fly numbers reach these levels. Delaying treatment, until fly economic or welfare numbers are reached, will reduce labour and chemical control costs, will help to reduce selection for pesticide resistance in buffalo flies and will decrease residue risk.

When estimating fly numbers, it is important to note that the distribution of flies on cattle changes with sunlight and temperature. Fly counts are most reliable when done in the morning, when a large proportion of the flies are found on the back and sides of cattle. During the heat of the day many flies will be resting on more shaded parts of cattle such as on the belly, underside of the neck and dewlap. At this time of the day it is more difficult to obtain accurate counts.

At times more susceptible animals in the herd, such as bulls, may harbour heavy populations of buffalo fly and show obvious fly worry. These animals may require individual animal treatments.

For more detailed instructions on monitoring fly numbers see assess buffalo fly burdens.

Treatment methods

Chemical treatments can be applied by a number of methods, see Table 1. In extensive areas where mustering is difficult, often the only practical methods are those that provide long periods of protection, such as insecticidal ear tags or where treatments are self-administered such as in backrubbers, rubbing poles or fly curtains.

In areas where mustering is easier, sometimes pour-ons, sprays or dips may be the best option and when animals regularly use the same pathways, for example to access food or water or the way to the dairy, buffalo fly traps should be considered.

Table 1. Different methods of application for buffalo fly control.

Treatment method	Chemical groups registered	Advantages	Disadvantages	Protection time

Ear tags and ear 'strips'	SPs = Synthetic pyrethroid OPs = Organo-phosphate MLs = Monocyclic Lactones	• Extended protection • Cattle usually only need to be tagged once each season • Nil withholding period and export slaughter interval • No effect on dung beetles	• Labour intensive to apply • Tags must be removed when protection expires (see label) • Tags must be removed before slaughter • Can promote resistance if misused*	10-16 weeks
Pour-ons	SPs OPs MLs	• Ease of application • Some products also provide tick, worm or lice control (check the label)	• Repeated treatments may be required • Longer ESI for most products (check label) • Some products (SPs and MLs) may be toxic to dung beetles	Up to 3 weeks
Sprays and dips	SPs OPs	• Give instant control • Relatively cheap • Some products also provide tick and lice control (check the label)	• Repeated treatments may be required • Must be prepared from concentrate • OHS risk from exposure to concentrate and off-target spray mist or splash exposure • Some products (SPs) may be toxic to dung beetles • Problems with mixing and maintaining correct chemical concentration can lead to an increase in resistance due to underdosing • Correct setup and use of equipment critical for thorough application	Up to 3 weeks

Backrubbers	OPs	• Low cost • Extended protection • Cattle self-treatment equals low labour	• No control of dose applied to individual cattle • Only one chemical group (OPs) registered • Resistance to OPs in some areas • Residues possible if ESI and WHP not observed • Essential to use clean mineral oil	Continuous when backrubber is recharged regularly

Trade names:
ML = Monocyclic Lactones = CYDECTIN
OP = Barricade.
Barricade S = OP plus SP

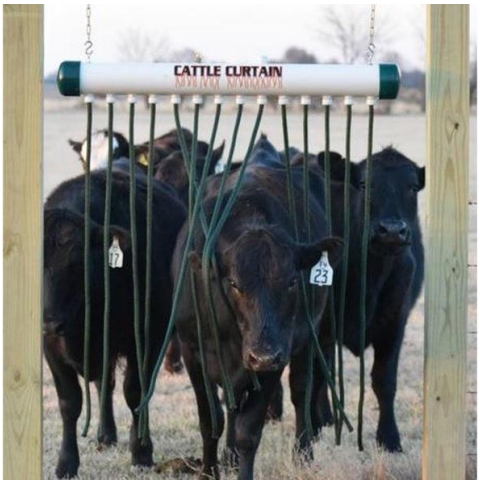
• if using ear tags, consider a rotation system of one year using ML tags, then one year using OP tags, then one year combined SP/ ML tags.

Don't use tags of the same group for more than one year •

KEY MESSAGE: change groups within a season. Recommended example; start the season with an SP spray, then apply tags the combined SP/ML tag late December. Then finish the season after the tags are removed with an ML pour-on • capitalise on the ML by giving it at the time when treatment for worms, lice or ticks would be undertaken

• cattle back-rubbers are convenient because the cattle treat themselves. The rubs are slung between posts or trees. Have it hung on a slight angle and at the right height for both adult cattle and calves.

When first used, cattle may need to be held in a small paddock with the rub to learn to use it.



Is there a natural treatment for Buffalo Fly?
Permethrin = Brute Pour On , Y Tex tags
(User would need to ascertain whether this is an “organic” treatment. MRC team cannot make a recommendation).