Cow comfort and milk yields can be difficult to manage during the summer months. Along with heat stress, fly populations can increase around your herd. Cows use valuable energy trying to avoid flies. This could affect milk production. University of Guelph researchers have discovered creating a fly repellent strategy can help increase cow comfort and manage milk yields.

Graduate student Carrie Woolley and department of animal and poultry science professor Renée Bergeron teamed up with professors Simon La-chance and Trevor DeVries to study how fly intensity affects cow behaviour and milk production.

“Flies are more than just a nuisance for cows,” says Woolley. “They spread diseases and affect cow behaviour, which could decrease milk production.”

The researchers observed 20 lactating Holstein dairy cows over a nine-week period last year from mid-June to mid-August. Half were treated with a fly repellant.

Untreated cows spent less time grazing and exhibited fly-avoidance behaviours, such as tail flicking, twitching, head throwing, leg stamping, side kicking and bunching, says Woolley. These behaviours reduce cow comfort and cause the cows to use energy that could later affect milk production, she adds.

Monitoring fly patterns and using repellants at appropriate times can help combat this problem, she says.

The research team discovered fly pressures were lowest in June and increased throughout the summer months. Fly intensities were highest from mid-July to mid-August, averaging up to 250 flies on the untreated cows, mostly horn and face flies.

“Fly pressures vary during the summer,” says Woolley. “Knowing when peak fly levels occur will help producers minimize repellant costs when fly levels are low.”

Traditionally, fly control is performed using synthetic insecticides, but resistance can rapidly develop. For the study, the research team used an organic, homemade repellent made of lemongrass and geranium oil extracts in a sunflower oil base. They found it decreased fly loads by 70 per cent. The researchers predict using fly repellants wisely will help producers manage fly pressures during the summer months.

“Dealing with flies is a real issue,” says Woolley. “I hope producers will be able to use some of the strategies we’re developing.”

Megan Cowie is a student writer for the University of Guelph’s office of research. This research was funded by Organic Meadow Co-operative, the Agricultural Adaptation Council and Dairy Farmers of Ontario.