As the number one disease of dairy cows, mastitis is a significant frustration of those who work with dairy cattle. There is a lot of information and research on mastitis and this month’s column will focus on clarifying some of that information and disproving some of the “myths” out there.

One such myth includes “2 is better than 1,” meaning 2 tubes of mastitis antibiotics at the same time will cure better than 1 tube. Antibiotics are either time-dependent or concentration-dependent. Time-dependent antibiotics are named this way because they kill or stop bacterial growth by binding to the bacteria for a certain period of time. Concentration-dependent antibiotics kill or stop bacterial growth by reaching a certain level of antibiotic in the body. The antibiotics that are present in mastitis tubes are time-dependent antibiotics, so increasing the dose given does not actually help the cow. In addition, a “double dose” of mastitis tubes is more expensive and increases milk and meat withdrawal times.

Another myth surrounding antibiotic use in mastitis is that systemic antibiotics (IM, SQ, IV) in addition to intramammary antibiotics will guarantee a cure. Systemic antibiotics are indicated in grade 3 clinical mastitis cases where the cow is visibly sick. The goal of systemic antibiotics in grade 3 mastitis cases is to protect the cow from bacteria spreading through the bloodstream and resulting in death. There are no systemic antibiotics labelled for dairy cows that penetrate the udder well enough to kill bacteria causing mastitis, even at very high doses. It is best to work with your veterinarian to create an effective detection and treatment protocol for mastitis cases.

The discussion on mastitis myths will continue next month.