The Changing Mastitis Research Scene

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In June 2005 the International Dairy Federation held its fourth International Mastitis Seminar. These seminars are held every ten years to allow mastitis researchers from around the world to meet and discuss their current research efforts and findings. The meetings also provide an opportunity for researchers and others to review how the mastitis situation in dairy herds from all regions of the world has changed in the past decade.

The opening keynote address at the 4th IDF mastitis seminar was given by Dr. K. Larry Smith, renowned mastitis researcher for the last 3½ decades from The Ohio State University. Dr. Smith presented an overview of the previous three international mastitis seminars, and offered his thoughts on where mastitis research is heading. A paragraph from his concluding comments is presented below. The paragraph is used with the permission of the Wageningen Academic Publishers which printed the proceedings of the 4th seminar in a book titled “Mastitis in Dairy Production”.

“The first three International Mastitis Seminars have shown that there has been overall progress in the control of mastitis in dairy herds as demonstrated by the reduction in herd somatic cell counts. There has been less progress on reducing the amount of clinical mastitis and little improvement in our ability to treat clinical cases of mastitis and to reverse the damage done by the infection. There have been major advances in our understanding of the natural defense mechanism associated with the bovine mammary gland but little of this knowledge has been incorporated into mastitis control schemes. There has been a clear progress in the understanding of the important aspects of milking machines that can cause or contribute to mastitis in dairy herds but there is still a lack of knowledge on the exact mechanisms of teat canal penetration by mastitis pathogens. Over the 30 year period, studies have demonstrated that genetic selection can be a component of mastitis control in dairy herds. Since 1975 there has been a shift in the importance of mastitis as being strictly a production limiting disease to the fact that mastitis adversely affects the processing properties of milk, its suitability as a human food and does impact human health issues.”

I believe Dr. Smith’s comments about the several areas of mastitis control that still need to be researched and solved are “right on”. While we have gained much knowledge about mastitis control, there is still much to be learned. Unfortunately though, much of what is already known about how to prevent and manage mastitis is not being used and applied on dairy farms around the world. I encourage all dairy producers to seek the suggestions of a competent advisor on ways to improve the mastitis management program in their herds. The result could be considerably less mastitis for our dairy cows and more profit for the producers.