

Pregnancy and Disease Detection from Milk Samples – A Global Overview

<1 line>

Christoph Egli¹, Rafael Paiva², Martina Kahila¹, Hannah Pearse³

<1 line>

¹ IDEXX Switzerland AG, Liebefeld, Switzerland christoph-egli@idexx.com (Corresponding Author)

² IDEXX Laboratories Inc., Westbrook, USA

³ IDEXX Laboratories, Windsor, United Kingdom

<2 lines>

Abstract

<1 line>

DHI organizations conduct testing for herd management and genetic improvement on over 27 million cows worldwide. This presents a valuable opportunity to labs, veterinarians and producers for additional testing of parameters such as infectious disease and pregnancy diagnosis.

Chemical pregnancy testing by detection of pregnancy associated glycoproteins (PAGs) produced by the placenta is an alternative to traditional methods of pregnancy diagnosis (either manual palpation or ultrasound) in dairy cows and heifers. Diagnostic tests are commercially available for use with whole blood, serum, plasma and milk. These tests can be used from as early as 28 days post artificial insemination and throughout pregnancy enabling confirmation of reproductive status at any time.

In addition, there are a number of commercially available tests for the detection of disease parameters such as antibodies against Johne's, Bovine Leucosis, Bovine Viral Diarrhea, Liver Fluke and Brucellosis as well as tests for the detection of mastitis.

The presentation will focus on the implementation of programs for control and surveillance of bovine infectious diseases and will also describe different programs established with a high performance chemical pregnancy test using DHI milk samples. Examples from different regions like Europe, USA, Latin America, Australia and New Zealand will be discussed.

Keywords: chemical pregnancy testing, DHI milk sample, pregnancy- associated glycoprotein (PAG)