

# Bovine Viral Diarrhea Virus (BVDV) in the United States and Europe: Vaccination and Testing Practices, Cost, Impact and Satisfaction

Nevena Djuranovic, MBA; Frank Winslow, MBA  
IDEXX Laboratories, Inc., Westbrook, ME

## Introduction

IDEXX Laboratories manufactures and sells test kits for detecting bovine viral diarrhea virus (BVDV) in beef and dairy cattle. IDEXX wanted to understand BVDV vaccination and testing practices among veterinarians in US and Europe, including a better understanding of similarities and differences between the two regions; use and cost of BVDV tests; BVDV impact on productivity; and satisfaction with current diagnostic methods.

## Materials and Methods

To address the stated objective of this study, quantitative market research was conducted via telephone interviews. In total, 67 interviews were completed with beef and dairy cattle veterinarians with a total of 36 US and 31 European respondents. Interviews were conducted by a professional third party market research agency between July and September of 2007. Respondents were randomly selected from a list of bovine veterinarians provided by the vendor and screened for eligibility based on a minimum number of total beef and dairy cattle currently serviced by the veterinarian. The questionnaire used for the telephone interviews with veterinarians addressed the following topics: estimated annual number of beef and dairy cattle vaccinated for BVDV, incidence of recommending or administering BVDV diagnostic tests for beef/dairy cattle, use of BVDV tests and amount paid for testing, satisfaction with currently available BVDV tests and perceived cost/head of BVDV across the entire herd.

## Results

All of the US beef and dairy veterinarians and 2/3 of the European veterinarians in this study currently recommend or administer BVDV vaccines. Despite a high percentage of veterinarians recommending/administering tests for BVDV, only 9% of the US and 30% of European beef and dairy cattle are BVDV tested. The average cost paid by veterinarians in the US for a

BVDV test (\$4.63) is just over one dollar less than the amount veterinarians estimate beef and dairy producers pay for the test (\$5.89). European veterinarians pay an average of €8.54 for a BVDV test which is three Euros less than the amount they estimate producers pay for the test (€11.69). In total, 33% of US veterinarians are "very satisfied" and an additional 56% are "somewhat satisfied" with their BVDV tests. For Europe, 46% of veterinarians are "very satisfied" and another 46% are "somewhat satisfied" with the BVDV tests they are currently using. Veterinarians in the US and Europe are satisfied with the BVDV tests they are using mainly because they are "accurate/reliable." Reasons why some veterinarians are less than "very satisfied" include accuracy, "too many false negatives," test cost "high cost," and time to result "7-10 days for results/should be quicker." If left untreated, the financial impact of BVDV for all animals across an entire herd due to lower productivity and mortality is estimated at \$126.60/head and €297.25/head in the US and Europe, respectively. If vaccinated, the cost of BVDV/head is lower but remains significant at an estimated \$34.97/head in the US and €33.88/head in Europe by beef and dairy veterinarians.

## Significance

Even though a high percentage of veterinarians recommend/administer tests for BVDV, a relatively low number (9%) of the beef and dairy cattle serviced in a year are actually tested, which is considerably less than in Europe (30%). There may be an opportunity to increase testing levels in the US. Producers and veterinarians in Europe pay significantly more per BVDV test than their US counterparts. Veterinarians in the US and Europe in general are satisfied with the BVDV tests they are using mainly because they are "accurate/reliable." Further improvement should be done to the current diagnostic methods to reduce high cost, improve sensitivity and reduce turnaround time. Even in vaccinated herds, the impact of BVDV is not completely eliminated, and the estimated cost of the disease remains significant at \$34.97/head in the US and €33.88/head in Europe.