Research Summaries

BEEF

Moderators: John Campbell and Gerry Mechor

An Electronic Network of Veterinary Practitioners for Surveillance of Alberta's Cattle Population

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Introduction

Alberta Agriculture Food and Rural Development (AAFRD) is developing an electronic surveillance network to collect cattle health information from practicing veterinarians in Alberta. The network will provide cattle health information specific to the surveillance needs of the provincial cattle industry, including rapid detection of emerging and foreign animal diseases, demonstrating the presence of a well-trained effective veterinary service, and establishing freedom from diseases of importance to trade. A second goal is to provide livestock health information of value to practicing veterinarians.

Materials and Methods

Data collection and transmission are electronic. The guiding principle for data collection is to collect sufficient data to meet AAFRD surveillance needs and the information needs of veterinarians while minimizing the burden placed on practitioners. All participation by practicing veterinarians is voluntary. Therefore, incentives for participation including system feedback, continuing education credits, updates on bovine medicine and production, and computer tools are essential.

Data are being collected to estimate geo-spatial and temporal fluctuations in endemic disease incidence and severity of outbreaks. For rapid real time identification of disease outbreaks that may represent emerging/foreign diseases and endemic diseases of importance, veterinarians will report their classification of the clinical syndrome and their clinical diagnosis for each outbreak. Since syndrome/clinical diagnoses classifications made during initial farm visits may be uncertain, identification of outbreak syndromes/clinical diagnoses that may represent diseases of importance will trigger further investigation. The validity of syndrome/clinical diagnosis classifications will be estimated using laboratory diagnoses. Farm numbers and numbers of cattle on farms will be collected for both health and non-health related farm visits.

Results

The initial phase of data collection has recently begun. Six multi-veterinarian practices were selected and a minimum of two veterinarians that specialize in feedlot, cow/calf and dairy were enrolled. This phase was designed to allow a small group of veterinarians to test and modify the logical flow of data entry. Data entry forms are currently available on a restricted access web site. Once efficient data entry forms have been developed they will be incorporated into practice management software that is used by veterinarians to manage their daily billing and record keeping. Data collection using chute-side devises like Palm Pilots® are also being developed. Data collection and information reporting for veterinarians are designed specifically to meet information needs identified by veterinarians.

Significance

Recent events, such as the detection of BSE and highly pathogenic avian influenza, in North America have clearly indicated that disease surveillance systems and the existence of a well trained veterinary service are vitally important. Veterinary practitioners are in a unique position to report information on livestock health and disease. Veterinarians have syndromic, clinical and diagnostic lab information as well as information about the population of livestock they serve. We believe that veterinary practitioners can be the cornerstone of an effective animal health surveillance system.