

Preventing West Nile Virus and More

By Susan McGinley



Crystal Renfrow

Arizona dairy cattle

The **Arizona Veterinary Diagnostic Laboratory (AzVDL)** is a full-service laboratory in Tucson, mandated through the Arizona Legislature as part of a university effort to respond to the requests of livestock producers in Arizona. It features pathology, virology and bacteriology services. For more information see the AzVDL Newsletter, a quarterly publication of the Arizona Veterinary Diagnostic Laboratory and Cooperative Extension, or the web site: microvet.arizona.edu/AzVDL/index.htm.

Animal diseases and their impact on human health keep hitting the front pages of newspapers. We have all seen the dramatic effects of animal health problems such as foot and mouth disease, bovine spongiform encephalopathy (mad cow disease) and *E. coli* food contamination. The outbreak of West Nile virus in the eastern United States and its rapid spread west is an excellent example of how a foreign disease can quickly move through animal and human populations. What can livestock producers and concerned citizens do to prevent these illnesses from occurring in Arizona?

Cooperative Extension veterinary programs in Arizona focus on keeping animals healthy by educating livestock producers and members of the livestock industry in proper animal care and disease prevention.

"My responsibility is to provide information to the general public about animal health issues, and to identify health problems in Arizona to help direct and focus our research efforts here," says Peder Cuneo, extension veterinarian for Arizona. He does this through face-to-face meetings, print and online animal disease bulletins, email and telephone calls,

and by coordinating his efforts with the county Extension agents who are located in rural and urban areas throughout the state.

"Time and distance are crucial factor in the rapid identification of a possible foreign animal disease," Cuneo says. "Just getting animals to the Arizona Veterinary Diagnostic Laboratory in Tucson for diagnosis is difficult." For this reason, he has developed a good working relationship with the state veterinarian, the state public health veterinarian, and with private veterinarians throughout the state. The focus is on four key areas:

- **Rapid identification and diagnosis of foreign animal diseases entering Arizona.** Diseases of greatest concern are foot and mouth disease, mad cow disease (bovine spongiform encephalopathy) classic swine fever, and Exotic New Castle Disease (END) in poultry. Currently the Arizona Veterinary Diagnostic Laboratory is assisting in a state-wide program to screen poultry for the appearance of the West Nile virus, according to Cuneo.
- **Biosecurity.** Looking at risk factors for the spread of diseases among livestock populations throughout the state, and finding ways to reduce that risk. Current efforts are directed toward controlling Johne's disease in dairy cattle, informing the public of the need to control mosquito populations to reduce the risk of West Nile virus, and working with the Arizona Sonoran Desert Museum on their biosecurity issues.
- **Food safety.** Ensuring a safe food supply through the quality assurance program, where beef and dairy cattle operations cooperate in following guidelines to keep their livestock and products free of disease-causing organisms and drug residues.
- **Animal welfare.** Following requirements to assure the public that if abuse and neglect are occurring, oversight measures will be taken to address it. Cuneo has started working with the National Cattlemen's Beef Association on their animal welfare guidelines.

The bottom line? "By having healthy animals that don't get sick, you don't need to use drugs for treatment or lose any animals to disease," Cuneo says, "and you ensure the public is getting a safe and wholesome product." ☒

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