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# Seminar focuses on controlling ND and ILT in Latin America

Recombinant vaccines offer a new and easier way for poultry producers in Latin America to gain control of Newcastle disease and infectious laryngotracheitis. This was the conclusion of a recent seminar held in Baltimore, USA.

Francisco Ríos, technical director for Intervet/Schering-Plough Animal Health, Mexico, highlighted that in his country, where Newcastle disease (ND) is 'arguably the most economically important poultry disease in the country,' testing indicates that highly pathogenic, velogenic strains of the virus are circulating. Some conventional vaccination programs for these strains do not always provide adequate protection.

"For example, broilers have to be vaccinated against ND at least once with an individually applied, killed vaccine, which may cause local reactions in some flocks," Dr Ríos said. "That extra handling can also stress birds and run up labour costs. If not timed properly, some live ND vaccines may cause severe respiratory distress, increase medication expenses and also add to labour costs."

In contrast, studies indicate that one properly applied dose of the recombinant vaccine Innovax-ND-SB protects birds from virulent ND. Birds protected from virulent ND have been shown to grow faster and more uniformly.

## Highly contagious

Infectious laryngotracheitis (ILT), which is highly contagious and causes problems ranging from mild respiratory signs to mortality of an entire flock is of equal concern.

Dr Guillermo Zavala, a veterinarian with the University of Georgia, Poultry Diagnostic and Research Center, USA, said ILT had increased in multiple countries throughout the Americas, affecting all segments of commercial poultry.

Recombinant vaccines are 'safe alternatives' that provide acceptable protection without the disadvantages associated with some CEO vaccines.

Dr Aris Malo, a veterinarian and global technical director with Intervet/Schering-Plough Animal Health, who has extensive poultry experience in Latin America,

explained that Innovax vaccines utilise the herpesvirus of turkey (HVT) to carry ND or ILT antigens that induce immunity. HVT is known to be safe for chickens and also protects against Marek's disease.

The recombinant vaccines are administered in ovo to 18-day-old embryos or at hatch by the subcutaneous route. "They cause no side effects, do not interfere with other respiratory vaccines and do not spread in the field. By eliminating the need for field vaccination, they simplify management and save producers labour costs," he said. Dr Malo cited studies conducted with Innovax-ND-SB demonstrating that the level of protection provided is similar to that found with live and inactivated ND vaccines.

Dr Keith Honegger, a veterinarian with Intervet/Schering-Plough Animal Health, sponsor of the seminar, reported that ILT outbreaks are occurring in certain areas of the USA and that losses can be severe, especially in unvaccinated flocks.

## Benefits observed

The recombinant ILT vaccine has already been used extensively with success in both commercial broiler and layer flocks. "The benefits observed by producers when the recombinant is used in place of conventional vaccines include elimination of ILT field vac-

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ination, elimination of reactions and less ILT disease issues, which in turn may improve livability and feed conversion,” Dr Honegger said.

Dr Robert Teeter, a researcher from Oklahoma State University, USA, who has extensively studied energy utilisation in broilers with the aid of sophisticated metabolic chambers, said that since feed costs are rising and further gains in feed formulations are becoming increasingly difficult, producers need to find non-nutritive factors that can be manipulated to improve energy utilisation. He pointed out that disease could result in the expenditure of thousands of calories, while vaccination to prevent disease costs typically less than 50 calories.

Teeter believes that in the future, it will be possible to achieve a feed conversion ratio of about one, a goal that will be affected in part by vaccine choices. Toward this end, the researcher is embarking on studies to discover if some vaccines are ‘kinder and gentler’ than others regarding their impact on the development of immunity and energy expenditure.

Dr Luis Etcharren, a veterinarian and director of the poultry business unit for Intervet/Schering-Plough Animal Health in Mexico, said that recombinant vaccines reduce metabolic expenditure by reducing the need to handle birds for revaccination in the field or medication as a result of vaccine

reactions. “Avoiding a post-vaccination reaction and the need to treat a flock translates into savings of about five cents per bird. In addition, hatchery application of vaccines can reduce vaccine failures. The return on investment when using recombinant vaccines is well justified; in some field cases, analysis showed it was as high as 5:1,” Dr Etcharren said.

## Achieving potential

Dr Laura Villarreal, regional poultry manager for Intervet/Schering-Plough Animal Health, Latin America, said the recombinant vaccines help birds achieve their genetic potential, enabling producers to provide high quality animal protein.

“It is important for producers to understand the new technology of recombinant vaccines because it can maximise profitability by protecting flocks against serious diseases without adverse effects,” she said.

Dr Angel Mosqueda, an independent poultry consultant, pointed out that control of disease, particularly virulent (velogenic) ND,

is needed if poultry producers want to export poultry products. Obstacles in Latin America to good control of virulent ND include poor biosecurity, lack of communication and cooperation among producers since they do not share information when an outbreak occurs, commercialisation and intensified production of the poultry industry as well as badly designed control programs. “Outbreaks are occurring with no reporting in some countries because there is not an incentive to report nor indemnification, or because the producers involved do not export their products.” Re-evaluation of current ND disease programs is warranted and to achieve improved ND control, new technology such as recombinant vaccines need to be combined with good biosecurity, and the understanding that good hygiene procedures are needed not only within individual farms, but between farms.

The forum concluded with presentations from poultry producers, including one from Latin America, about their experiences managing ND and ILT in their operations. ■