

Innovations in poultry vaccines – effervescent tablet advances delivery

The global product launch of a significant innovation in poultry vaccination technology recently took place at the World Veterinary Poultry Association Congress in Cape Town, South Africa. Merial, the animal health division of Sanofi, introduced their effervescent tablet vaccine for the prevention of Newcastle disease virus (NDV).

NDV is a highly contagious and often severe poultry disease causing mortality. It is caused by a virus that usually presents as a respiratory disease, but depression, nervous manifestations, or diarrhoea may be the predominant clinical form.

The disease is currently well controlled in the United States, Canada and some western European countries but continues in parts of Africa, Asia and South America. Since wild birds can sometimes carry the virus without becoming ill, poultry outbreaks can occur anywhere in unvaccinated flocks; when this occurs, an entire flock will typically become infected within 2-6 days.

Advances in technology

Merial's Avinew NeO effervescent tablet is a convenient, safe and eco-friendly formulation that contains the same active ingredients as Merial's Avinew vaccine in vial, with comparable, high levels of safety and efficacy.

Avinew is the world's number one avian vaccine in doses sold (15 billion doses in 2014) and is distributed to poultry farms in more than 80 countries on four continents.

The Avinew NeO vaccine is the first of six planned Merial vaccines in



effervescent tablet form to prevent avian diseases.

Technology advancements like the Avinew NeO tablet are critical to enhance poultry disease prevention through production and cost efficiencies in light of the growing need for protein in the world.

By 2050, 70% more food will be required to feed the world's population, and by 2020, chicken will overtake pork as the global animal protein of choice.

Avinew NeO effervescent tablets replace the traditional vial and syringe vaccine application used for decades by poultry farmers worldwide. The new vaccine is designed to significantly improve vaccination practices and reduce costs for poultry producers while maintaining reliable virus protection, through:

- A simplified mixing and handling process that complies with good vaccination practices.
- Improved safety for operators and birds.
- Environmental benefits of waste reduction, eco-friendly packaging and carbon footprint reduction during transportation.

"Merial is excited to introduce the Avinew NeO tablet, whose unique formulation has the potential to transform poultry vaccination practices around the world," Jérôme Baudon, Global Head of the Avian Business at Merial, told International Poultry Production.

"This introduction is an example of

Merial's commitment to deliver significant innovations to help poultry producers protect the health of their flocks, and feed our world's increasing population.

"We will continue to further diversify our avian offerings with innovative vaccines, focused on prevention, and responding to the changing needs of our customers."

Avinew NeO tablets are packaged in lightweight aluminum blisters and dissolved in drinking water. The vaccine is administered orally, nasally or by aerosol spray, whereby droplets enter via the mucus membranes of the birds. Merial invested more than €15 million at its global manufacturing site in Lyon-Porte-des-Alpes, France, for the production of the Avinew NeO vaccines.

WVPA Congress 2015

At the WVPA Congress 2015, Merial presented clinical data from multiple Avinew NeO safety, efficacy and bioequivalence studies.

In addition, the company sponsored the 2015 WVPA-Merial Innovation in Vaccination Award, which was presented to Siba K. Samal, PhD, Professor, Chair and Associate Dean, VA-MD Regional College of Veterinary Medicine, University of Maryland.

Dr Samal and his team have developed live-attenuated vaccines by genetically modifying virulent NDV strains circulating in Indonesia and Mexico.

He has also engineered NDV as a vector vaccine against other important poultry diseases such as infectious bursal disease, avian influenza, infectious bronchitis, and infectious laryngotracheitis. This novel vaccine technology has widespread application for future vaccine development.



Dr Siba K. Samal.

Merial has a 30 year history of partnering with poultry producers worldwide to improve the health and productivity of their flocks, primarily through biological vaccines that help prevent a wide range of highly contagious viruses that have the potential to infect entire flocks, and cause devastating financial losses for poultry farmers.

Annually, Merial produces more than 90 billion doses in 1,000 poultry vaccine presentations to protect birds against 20 different diseases worldwide. ■

References are available on request
www.merial.com



Neo Timeline: key dates

June 2012	Project launch
May 2013	First pilot batch production
Sept 2014	Avinew Neo registration in France
Oct 2014	First Avinew Neo batch release
Feb 2015	Launched in the field in France
May 2015	Gallivac IB88 Neo registration in France
July 2015	Positive opinion for AVW MRP in Europe
Sept 2015	Global launch in Cape Town