

DEAR AVIAN PROFESSIONALS,



In the course of the past year, Lohmann Animal Health International (USA) has had to undergo substantial changes. Soon, the entire avian vaccine operation will be consolidated in Maine. A significant investment in facilities and people at Maine has resulted in a concise and effective avian vaccine manufacturing centre being expanded. A large (1,226 sq metres), modern, double annex, environmentally controlled testing house, appropriate for larger groups of chicken and/or turkey testing has been added.

The facility is off-campus, but close to the main site. It boasts shower-in/shower-out facilities as well as its own incinerator for bio waste. A second animal testing building features a three-chamber HEPA-filtered in/out air-handling system that allows three contagious micro-organisms to be tested in birds simultaneously. This will facilitate faster QC testing for live IBD, AE and MG vaccines.

The addition of a very large cold storage unit, plus automated label printing/application and a vaccine distribution centre in Maine will speed up the vaccine supply. A significant safety stock increase is underway. The purpose of this extra stock is to facilitate growth and assure supply to our distributors in 40 international markets.

These investments are a sign of our commitment to the future of the AviPro[®] avian vaccine business.

Yours sincerely,

Dave Zacek
CEO, Lohmann Animal Health International

■ U.S. AviPro[®] LAUNCH AT THE IPE IN ATLANTA

Lohmann Animal Health chose the International Poultry Exposition in Atlanta, Georgia, to introduce their new brand AviPro[®] to the public. The IPE has been held for 60 years in Atlanta and has become the world's largest trade show for the poultry and egg industry. The 2007 International Poultry Expo brought together nearly 20,000 attendees. This year's attendance was the largest in five years and with a total of 3,977 international visitors from 90 countries, the show could further increase its worldwide outreach.

This and the fact that all segments of the poultry industry are represented at the show made it the ideal platform to present the new face of Lohmann Animal Health to the public. With its new brand AviPro[®], standing for Avian Professionals, Lohmann achieved a common public image for all its poultry vaccine...

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■ U.S. AviPro® LAUNCH AT THE IPE IN ATLANTA

... businesses. At the new designed booth of LAH, visitors could read the company's motto, which accompanies the establishment of the new brand:

One face for one company!

One source –

The one company providing poultry health solutions to the world

One focus –

The one team of Avian Professionals dedicated strictly to poultry health

One brand –

The one name to count on for all your poultry vaccine needs



Construction of the new AviPro® booth at the IPE.

The new AviPro® range will bring one practical innovation for LAHI, which is the use of bilingual labels (English and Spanish). These labels are for the standard products, those which are to be used in the United States, all of Latin America and other countries which accept the English label. This step means not only a reduction of the variety of labels, but according to LAHI's President Dave Zacek, who calculates that the change from "labelling to ship" towards "labelling as soon as the serials are cleared by USDA" will permit immediate

labelling on 60% of LAHI's output. This should allow for easier inventory logistics and a more agile supply (forecast, production planning and faster reaction/delivery).

For the Lohmann staff at the booth the show provided the possibility to build new business contacts, as well as to strengthen and deepen the relationships with customers and partners.

Part of this relation-building process was the traditional "Distributor Appreciation

Meeting" in the Brazilian restaurant "Boi na brasa" on the Tuesday night before the start of the show. Every year, on the day before the opening of the show, Lohmann Animal Health invites its closest business partners to thank them for the good cooperation throughout the previous year.

This year, more than 80 people from all over the world attended the dinner and the great food, as well as the cordial atmosphere, made it a memorable evening.

Events/visits

■ TECHNICAL SEMINAR IN RIYADH



The group of participants enjoyed their time at the well-organised seminar in Riyadh.

LAH's Saudi Arabian distributor Shahroor organised a Technical Seminar at the Radisson hotel in Riyadh. More than 30 farmers, which work together with ARASCO Foods and their Technical Operation Manager Dr Khaled Khouder,

participated in the seminar. The group was welcomed by the representatives from Shahroor, General Manager Mr Tareq Saleh Al-Eshaiwi and Technical Manager Dr Abdul Halim Hasayen, as well as Dr Hamad A. Al-Batshan, General Manager of ARASCO

Foods. The Technical Programme, given by Dr Ioannis Mavromatis, Area Sales Manager from Lohmann Animal Health, this time focused on Gumboro. After a general presentation on the disease, Dr Mavromatis gave the audience a closer look at Lohmann's intermediate IBD vaccine AviPro® PRECISE (former TAD Gumboro vac forte) and completed the seminar with the introduction of Lohmann's new water stabiliser AviBlue. All presentations met the interest of the participants and were accompanied by a lively discussion.

Events/visits

■ GREEK PRODUCERS INFORMED AND WARNED ON SALMONELLA



The special salmonella-focused campaign launched by LAH in Greece met with great success in informing the Greek poultry industry about the current situation and future regulatory measures in the context of the EU legislation. The industry was informed about the latest advances in controlling the deadly bacteria through state-of-the-art vaccination programmes. Furthermore, Dr Panayiotos Triantafyllou, a top veterinary official of the Ministry of Agriculture, issued a warning on the severe consequences resulting from positive readings from salmonella testing.

Speaking at the seminar, organised in Athens by Lohmann Animal Health, he advised producers to start vaccinating without delay, before the practice becomes compulsory next year, in order to avoid possible slaughter of flocks and 'freezing' of sales. The seminar was one of two organised by Lohmann Animal Health and attended by major integrators representing 90% of the layer and broiler-breeder sectors. The other seminar was held in Ioannina, western Greece, now a major centre for broiler-breeders, following problems for the poultry companies in the south of the country, which resulted in a major restructuring of the industry.

"In the process of rapid modernisation of the poultry industry, we are experiencing an increased focus on hygiene and high poultry product quality. The sector has understood the importance of vaccination against zoonoses and we expect increased implementation of control strategies in the near future. As the Greek market, not unlike all other EU countries, is hard pressed by globalised trade in eggs and meat, the only way forward is high-quality, eponymous local products. We are happy to see that LAH's efforts in focusing the attention of the main players in the field has met with success." commented Dr Kosmas Theodorides, LAH Business Area Manager for Greece, Cyprus and Bulgaria.



Dr Kosmas Theodorides



Athens was one of the chosen venues for the salmonella seminars in Greece.

Events/visits

LOHMANN ANIMAL HEALTH AT THE VIV IN BANGKOK

ViV Asia has proven to be an effective meeting place for the Asian livestock and aquaculture industry. 518 exhibitors from 37 countries displayed their latest products. 22,000 visitors (26% of them poultry farmers) from 92 countries walked the show floor and the ViV Asia Conference attracted 2,700 top-level industry representatives.

With our creative LAH booth in the form of a giant egg, our four core pillars, namely IBD XTREME, PRECISE, THYMOVAC and SALMONELLA VAC, were successfully emphasised. Of course, the main draw was the new trademark and design of AviPro®, omnipotently recognisable everywhere. The mixed Lohmann team of Asian and German colleagues were busy answering questions or guiding clients through the long list of vaccines all day.

The lectures of Dr Michael Gürtler on Salmonella legislation in the EU and the advantages of AviPro® IBD XTREME, held in view of an audience of some 100 interested listeners, each underlined our main thrust, to introduce AviPro® IBD XTREME and create scientific and

political awareness of Salmonella control in the food chain in the region. LAH's participation with this pre-eminent booth attracted the attention of many interested people and opened new possibilities to strengthen and secure business relations.



ViV in Bangkok.



The alerted eye could discover IBD XTREME everywhere.



The atmosphere created by the organisers was just mind-blowing.

An extraordinary experience for all Lohmann guests during the ViV days was the VIP event, which was held in a traditional serene Thai house and was organised to introduce AviPro® IBD XTREME, Lohmann's Intermediate plus Gumboro vaccine, to Asia.

For our distributors, customers and authorities it was an evening to remember, amidst the drum beating, candlelit beauty, dance, soothing massage and excellent classic Thai food. And AviPro® just was everywhere...

A big thank-you to the regional team for a well-organised exhibition and enjoyable event. And special congratulations go to Mr Axel Foellmer, who has been elected Vice President of the Asian Animal Health Association during their latest board meeting on occasion of ViV.

Events/visits

PRODUCT SEMINAR IN CASABLANCA

On the 22nd of February 2007, IPV (Institut de Pharmacie Veterinaire) distributor of Lohmann Animal Health in Morocco, organised a seminar in Casablanca, focusing on the control of Salmonella Gallinarum and Infectious Bursal Disease.

Approximately 30 Moroccan veterinary poultry specialists from all over the country were invited to attend the round table discussion. Presentations were given by Product Manager Dr Anne Beiersdorf, Marketing Poultry Vaccines (LAH), on AviPro® SALMONELLA VAC E and AviPro® IBD XTREME.



The speakers Dr Anne Beiersdorf and Prof. Khalid Bouzoubaa, as well as organiser Dr Ahmed Ait Taleb (IPV), were available for questions after the presentations.

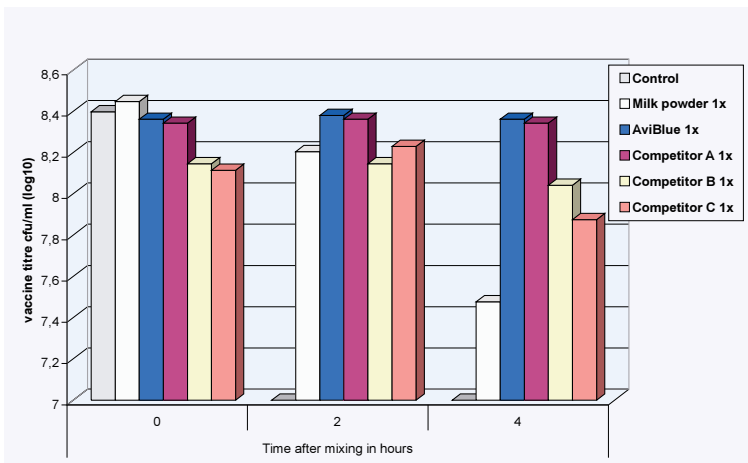
Additionally, Prof. Khalid Bouzoubaa, a specialist in Salmonella, reported on the successful trial he conducted with AviPro® SALMONELLA VAC E regarding cross-protection against Salmonella Gallinarum. In Morocco, Salmonella Gallinarum infections pose a serious economic threat to the poultry industry and, therefore, effective tools for eradication are required.

It was generally accepted that our Salmonella vaccine could become a part of the national Moroccan control programme for Salmonella Gallinarum.

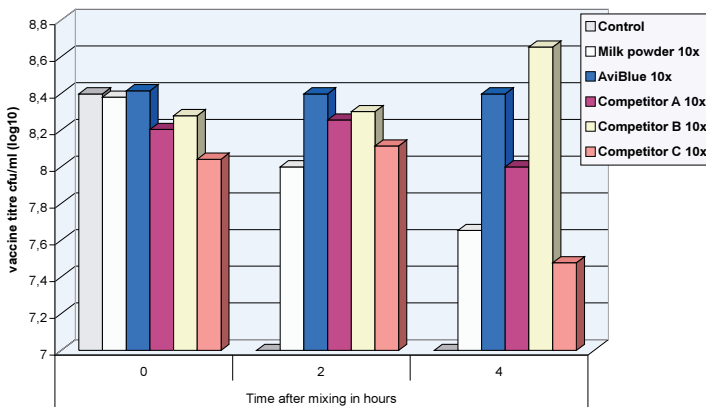
Products

WATER STABILISERS TESTED – AviBlue THE OUTSTANDING WINNER

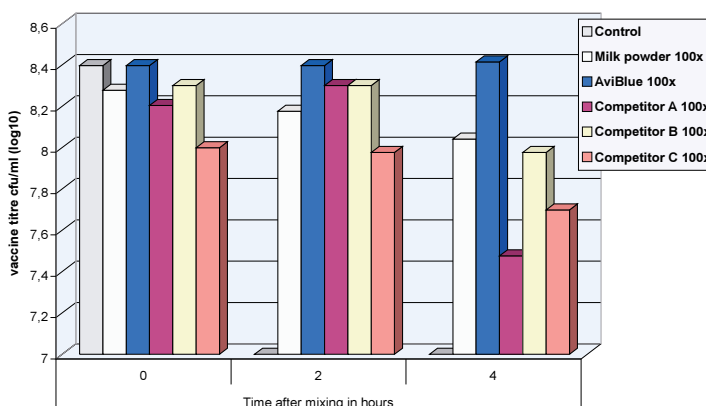
Neutralising effect of water stabilisers (1 fold)
in distilled water with 5 ppm chlorine



Neutralising effect of water stabilisers (10 fold)
in distilled water with 5 ppm chlorine



Neutralising effect of water stabilisers (100 fold)
in distilled water with 5 ppm chlorine



Vaccination via the drinking water is a very common method of application for various live vaccines. Therefore, it is important to assure that live oral poultry vaccines reach the birds in the best possible condition. When live vaccines are re-suspended into tap water, the titre may reduce as it spends time dissolved in the water. Such reduction can even be accelerated when under sub-optimal water conditions.

Due to this effect, it is highly recommended to add skimmed milk powder or commercial water stabilisers, which are designed to buffer the negative effects of hard water or water containing the residues of chlorination on live vaccines.

A British independent laboratory tested the four water stabilisers available in the UK to ascertain their performance. The water stabilisers are sold as a substitute to skimmed milk powder. All products claim that they neutralise chlorine and protect the vaccine in the water. Next to this, they all contain a non-toxic dye which enables the vaccine-mixed water to be visualised, both for indicating that the vaccine solution comes out of the drinker lines and for tongue-staining the birds to access vaccine coverage.

An important role is played by the usage of dosing pumps. With these pumps, a concentrated solution of the vaccines is dosed in to the water line at a set rate. Consequently, the water stabiliser has to be used in a higher concentration as well. Therefore a trial was designed, testing each of the stabilisers and skimmed milk powder on a 1-fold concentration (normal strength), 10-fold and 100-fold (stock solution strength, for dosing pump), for their protection of the vaccine (AviPro® SALMONELLA VAC E) in the presence of 5 ppm of chlorine in the water.

The results in the graphs 1–3 show that the usage of a commercial stabiliser is favourable over skimmed milk powder. Especially in terms of the time performance of the milk powder, it is inferior to most stabilisers. This trial demonstrates impressively the superiority of AviBlue in protecting the vaccine from the negative effects of the chlorinated water.

Not only in the 1-fold concentration has it shown a consistent vaccine titre, even in the 100-fold concentration, where the performance of the other stabilisers downgraded, it demonstrates a very high level of vaccine protection.



GUMBORO LIVE VACCINES



Anna-Christina Riebau,
Product Manager,
Marketing – Poultry Vaccines

Does the Lohmann range cover all needs of the Gumboro live vaccine market?

Yes, Lohmann Animal Health provides its customers with a complete range of Gumboro live vaccines. Available are live vaccines from mild up to intermediate plus. You will find in our portfolio the mild vaccine AviPro® VIBURSA L, the intermediate vaccines AviPro® VIBURSA CE, AviPro® GUMBORO VAC and AviPro® PRECISE, as well as the intermediate plus vaccine AviPro® IBD XTREME. This covers all contingencies that might be

requested from a Gumboro live vaccination programme.



What is the difference between mild, intermediate, intermediate plus and hot?

Live IBD vaccines are categorised by the OIE by their breakthrough titre, virulence and potential to induce immunosuppression. According to these factors they are divided into mild, intermediate and intermediate plus (or hot) vaccines. While the mild IBD vaccines show the lowest invasiveness and, therefore, are used mainly for day-of-age vaccination in chicks with low or no MDAs (Maternally Derived Antibodies), the intermediate plus vaccines have the highest virulence, breakthrough titre and potential to induce immunosuppression. The intermediate vaccines stand between these two groups and are used under “normal” conditions as a standard procedure applying for most situations in the field.

	Mild	Intermediate	Intermediate plus
Breakthrough titre	Can break through low levels of MDAs	Able to break through moderate levels of MDAs	Able to break through higher levels of MDAs
Bursa lesions (virulence)	None	Limited and passing effect	Causes considerable bursa lesions
Immuno-suppression	None	None	Yes, sub-clinical IBD
Use	In chickens with no or low levels of MDAs/ in inhomogeneous flocks	Under “normal” conditions (standard procedure)	In presence of vvIBDV (emergency)

Categorisation of Gumboro live vaccines.

The term “hot” is, misleadingly, often perceived as referring to vaccines hotter than intermediate plus, but in fact, when this term is used for vaccines, it relates to the same category of invasiveness and virulence as the term intermediate plus does.

What is the advantage of using intermediate plus vaccines?

Young chicks are protected against a field challenge of IBDV by MDAs. But the level of this maternal immunity decreases with time and the chicks become more and more susceptible to the virus. The MDA level not only protects against the field challenge, but it also neutralises live IBD vaccines when they are given too early. The capability of a vaccine to take in a chick depends on its breakthrough titre. The higher the titre is, the earlier can it break through the maternal immunity. Intermediate plus vaccines have the highest breakthrough titre and can therefore break a lot earlier through the maternal immunity than mild or intermediate vaccines could do. In case of vvIBD (very virulent IBD), due to its virulence, the virus is able to break through relatively high levels of MDAs. Only intermediate plus vaccines are able to take early enough to protect the chicks against this early field challenge.

Does Lohmann provide a general programme on Gumboro vaccination that would work under most conditions worldwide?

Lohmann supplies its customers with a recommended vaccination programme for each of their vaccines. But we have to keep in mind that an ideal and successful vaccination programme should be “tailor made” for each flock, because to be effective, a Gumboro vaccine has to be given at the right time. The correct time of vaccination depends primarily on the level of maternally derived antibodies in the chicks and the breakthrough titre of the vaccine on the one hand, as well as on the virulence of the field virus on the other hand. A right time for one vaccine might be too early for another with a lower breakthrough titre. The identification of the correct time of vaccination can be done in many different ways: by serology, meaning the analysis of blood samples, by estimation, which implies the knowledge of the parents’ vaccination schedule or just by several vaccinations at different times in order to be sure to protect birds with different MDA level.

American-based companies seem to favour a multiple live vaccination programme for Gumboro. What is the difference? Are the vaccines not sufficiently good?

The principles of maternal protection, level of field challenge and vaccine breakthrough titre are applicable to all geographical and epidemiological situations. So are the vaccines efficacious when given at the right time. The multiple live vaccination programmes are designed under the third approach mentioned above, which is to ensure that birds with any different levels of MDA are protected at the right moment. This methodology is efficacious and covers any gaps in protection from flocks with uneven levels of MDA.

Avian Professionals

NEW SALES ASSISTANT FOR THE MIDDLE EAST



Antje Streng


 In February 2007, Antje Streng started as Sales Assistant in the Poultry Vaccines Sales Department at LAH headquarters in Cuxhaven. Ms Streng has a degree as Translator for Business French and Commercial Correspondent. Her work experience includes seven years working as project and management assistant in the wind energy industry, different positions in the private industry and the public sector, as well as

two years in the administration of the German Army in France. Working closely with Area Sales Manager Ioannis Mavromatis, Ms Streng is responsible for order booking and registration of vaccines in the Middle East.

NEW SCIENTIST FOR LAHI



Maria Elena Vasquez

 Maria Elena Vasquez joined LAHI in March this year. Based in Winslow, Maine, she will strengthen our R&D team. Ms Vasquez comes to us from Boehringer Ingelheim, where she worked in the vaccine development.

During her extensive work experience, she developed an Inclusion Body Hepatitis vaccine, Avibacterium paragallinarum bacterin and Gallibacterium anatis bacterin and their combinations with other virus and/or bacteria. Ms Vasquez is an expert in bacterial diseases such as Coryza and Fowl Cholera. We are happy that she will put her skills to good use in the USA at the Maine site.

NEW SALES MANAGER FOR LOHMANN ANIMAL HEALTH INTERNATIONAL



Shannon Kellner


 Shannon Kellner has been appointed Sales Manager of LAHI for North America. Mr Kellner is focused on the poultry industry since the start of his career. After graduation from Texas A&M with a bachelors in Poultry Science, he worked for several broiler companies and as a Poultry Specialist for Purina Mills.

In 2003, Mr Kellner strengthened the Sales team of LAHI, when he joined the company as Mid-Atlantic Area Manager. In 2006, he was promoted to Western Area Sales Manager. The North American team is enthusiastic about the promotion of this Avian Professional to the group leadership, and we all welcome Shannon to the job.

ENHANCEMENT FOR THE LOHMANN SERVICE OFFICE IN TEHRAN



LAH team in Tehran from left to right: Mr Arash Akbarian – Feed Additives, Dr Babak Youssefi – Poultry vaccines, Dr Ahmad Ashrafpour – Area Sales Manager, Mrs Marzieh Afzali – Administration

 Effective 1st March 2007, Dr Babak Youssefi joined the Lohmann team in our Service Office in Tehran. Dr Youssefi graduated in 1999 from Karaj Azad University as D.V.M. He will be responsible for all sales and marketing activities of the AviPro® range of poultry vaccines in Iran. Dr Youssefi will also work with the local authorities to supervise and monitor vaccine registration procedures. We welcome Dr Youssefi to the LAH team.

What's new?

NEW AviPro® BROCHURES AT HAND



In the third issue of AviPro® News we already presented our upcoming AviPro® ND C131, a live vaccine for active immunisation against Newcastle Disease, containing a cloned lentogenic La Sota strain. To support our sales staff and to inform our customers, the marketing department has now created an instructive brochure on this new vaccine, which heralds a new area of vaccine production.

Lohmann is also providing its clients with a guideline on how to vaccinate correctly with live vaccines against Infectious Bursal Disease (Gumboro Live Vaccine Guide). LAH has a complete range of IBD live vaccines, from mild to intermediate plus, at their customers' disposal. The effectiveness of a live Gumboro vaccine depends heavily on the correct timing of the vaccination. To help their customers in finding the ideal vaccination scheme for their poultry operations LAH is now adding this six-page information sheet to its Gumboro support tools.

Portuguese-speaking customers can now look forward to the translated brochure on Lohmann's new water stabiliser AviBlue, which is available through our distributor TLH in Portugal and our local office Lohmann Saúde Animal in Brazil.

In the course of the further proceeding registrations of our Salmonella vaccines (AviPro® SALMONELLA VAC E and T) in Latin America, the information sheet on the differentiation of field isolates from the vaccine strain is now also available in Spanish.

AviPro® NEWS CREDITS

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Jesse Rodriguez, Mariano Salem, Shannon Kellner and Francisco Carrillo were wearing the new ties at the LAH booth in Atlanta.

What's new?

NEW CORPORATE TIES FOR LOHMANN ANIMAL HEALTH



As part of the new consolidated Corporate Image of the company, Lohmann Animal Health designed, together with the well-known German tie producer "alpi", a new silk tie in the company colours red and grey.

Since already the foundation of LAH, these colours have come to stand for reliability and high quality in our services to the poultry industry.

With a modern design, the tie is elegantly striped, printed on the backside label with the AviPro® logo, our new brand name for the range of poultry vaccines.

The International Poultry Exhibition in Atlanta was the chosen venue to present the "AviPro® ties" to the public. At the Lohmann booth all colleagues were wearing the ties, which identified them as Avian Professionals from Lohmann Animal Health to all booth visitors.