



World Nutrition Forum's Asian debut focuses on poultry

Biomin recently held their World Nutrition Forum in Singapore and some 800 delegates from 75 countries attended. This was the first time the event was held outside Austria and, with the right balance of social and scientific sessions, everyone who attended, including International Hatchery Practice, hailed the meeting a great success. The theme of the Forum was NutriEconomics – Balancing Global Nutrition and Productivity: People, Performance, Profit and Planet and here we highlight the key messages for breeders and hatcherymen to come out of the event.

In the poster session there were several posters of relevance to breeders and hatcherymen.

C. Schauerhuber et al from Biomin looked at the antimicrobial potential of six phyto-genics (sanguinarine, totarol, thymol, and oleoresin from *Curcuma longa*, *Piper nigrum* and *Capsicum annum*) against *Salmonella* enteritidis and *Campylobacter* coli.

All of these phyto-genics, except totarol, showed high antibacterial activity against both bacteria with *C. coli* being the more susceptible of the two bacteria tested.

In particular, the antibacterial activity against *C. coli* was significantly higher for sanguinarine, totarol and *C. longa* oleoresin.

The researchers felt that these phyto-genics

Treatment	Caecal samples (salmonella +ves/total)		Faecal samples (salmonella +ves/total)
	7 dpi	14 dpi	11 dpi
Control	3/12	2/12	Positive
+ Biotronic SE forte	0/12	0/12	Negative
+ Biotronic Top3	4/12	0/12	Negative

Table 1. *Salmonella* detection 7, 11 and 14 days post infection (dpi) following use of Biotronic SE forte and Biotronic Top 3.

could be used to prevent colonisation by *S. enteritidis* and *C. coli* in poultry.

I. Giannenas et al from the University of Thessaly, Greece looked at the effect of dietary probiotics on bird performance as well as the intestinal morphology and microflora of chickens infected with a mixed challenge of *Eimeria tenella*, *E. acervulina* and *E. maxima* (coccidia). They see beneficial effects on growth and intestinal health when compared to control infected birds and a similar improvement to that given by the anticoccidial lasalocid. The multi-species probiotic gave promising evidence that it could lessen the challenge effects in chickens caused by *Eimeria* Spp.

M. Mohni et al from Biomin demonstrated that several bacterial isolates from the avian digestive tract exhibit the ability to inhibit

Campylobacter jejuni in an in vitro model and this suggests that a multi-species probiotic could give a significant reduction in caecal colonisation by *C. jejuni*.

Renata Urbaiyte et al from Biomin reported on the effect of natural growth promoters to control artificial infections of salmonella (see Table 1).

In an interesting paper Mickaël Le Helloco from Novogen SAS looked at selecting layer genetics according to field conditions. In several developed countries market segmentation via the development of alternative production systems is occurring. In addition, the cost of feed ingredients is today much higher and so efficient utilisation of feeds by layers is increasing in importance. Both these facts impact on genetics and the geneticist as today's layers need to perform well under a variety of conditions.

Traditional selection is based on placing pure lines in individual cages in a fully controlled environment – but pure lines and their commercial progeny are not always raised in this fashion. So, nowadays, increasingly pure line data is being linked to commercial layer performance in selection.

Each commercial farm has its own (different) environment, egg production is influenced by local factors and climate is a significant variable. If all of these are introduced into the selection process, selection would lose its momentum and some of its effectiveness. However, by combining data from different housing systems progress can be made.

Today's breeding goals are egg quality, egg production, efficiency and livability (dead birds do not lay eggs and deaths early in lay can adversely influence flock efficiency).

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Speakers at Biomin's World Nutrition Forum in Singapore.



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Price competitiveness in the egg market place means heavy emphasis is placed on efficiency and other market considerations means that emphasis is also placed on egg quality, distribution of egg size, longevity and persistency.

Nowadays, in addition to BLUP, genomics is playing an increasing role in selection to accelerate genetic progress in some areas.

Today it is not only the genetic potential in a specific environment, but also the ability of layer breeds to perform well in the various conditions of production that is critical to the success of layer breeds.

R. Russell et al from Portugal addressed the impacts of climate change should it occur. Climate change is expected to affect crops in three ways:

- The regions suitable for maize growth will remain the same.
- Some areas may become suitable for maize growth.
- Some areas may become unsuitable.

In addition, the same climate changes



Erich Erber, Biomim's founder and director of the executive board, welcomed delegates to the Forum with an interesting and thought provoking presentation.

bringing the above about will also impact on the fungal species and, hence, mycotoxins present. Fumonisin are the main mycotoxin of concern in maize and her meteorological conditions are crucial and protocols for good agricultural practices have been developed with encouraging results in terms of grain safety at harvest. ■

The Chinese challenge

The opening session of the World Nutrition Forum centred on Doris and John Naisbitt from the Naisbitt China Institute considering how China is evolving to meet tomorrow's challenges.

China's strategy is to combine strategic planning with seeking bottom-up support and raising productivity by leveraging ecological and environmental friendly technologies to work in a holistic approach of economic, social and political change.

China has moved from economic progress at all costs to investing in sustainable environmental friendly projects as the means to progress to a higher level.

Using a trial and error approach, despite all shortcomings and mistakes, China has become the most dynamic country in the world.

John and Doris reflected on recent times. In 2000 the West appeared to be set for a bright new century and China was fulfilling its role as the workshop of the world.

Some 12 years later things have dramatically changed. America, the flagship of Western values and achievements, is joining the old world in its downwards slide – the average net assets of an American family declined by 40% between 2007 and 2010. However, we should not write the USA off as its economy is still the largest and three times bigger than China's. However, China is building economic alliances with emerging markets both in and outside Asia. Japan has become China's largest trading partner and these two countries now trade directly and not through the US dollar.

Emerging markets such as Brazil, Indonesia, Chile, Malaysia, India, Turkey,

Mexico and others will want to capitalise on these shifts and changes.

China's political system is much more adaptive to economic necessities than the established representatives of the free market and its governing structures are independent of election driven cycles which allows for efficient actions and long term strategic planning. China's urgent problems, with corruption and the environment top of the list, will be addressed by increasing transparency.

Today, some 800,000 local rural leaders are elected in a grass roots democracy and reforms in areas such as property ownership and equalisation of public service will hopefully address China's new social challenge – the widening gap between poor and rich. The driver of social progress is an increasing respect for the rights of the individual, which is a massive change in the Chinese mindset. The more China develops, the more opportunities it will create and the more it will contribute to the world!

Western democracy appears to have lost its way and hunger for power, party politics, self-interests and little engagement to adapt to the changing conditions of a globalised world economy means western politicians are becoming more detached from the people they are meant to represent. Western democracy is deaf to the need to re-invent itself to meet changing needs in the way China has.

With constant improvements in the quality of their living conditions the vast majority of the Chinese see no need for a sudden change to their one party system as long as it delivers what China needs.