Russia: A booming poultry market

The poultry industry in Russia is one of the fastest growing markets as compared to other international markets not to mention one of the best performing sectors in Russia. Despite great efforts, the industry has still not managed to reach the high level of 1990, which is a goal for many industries. It was the year of the collapse of the Soviet Union and the beginning of a new era.

Development plans are often out of reach and despite tremendous growth in some regions, the past few years have shown stagnation in egg production. According to official figures, egg production is currently at about 42 billion eggs, of which just over 20% (9.3 billion eggs) are produced in small house plants (Fig. 1, next page).

What seems to be quite unrealistic when compared to the rest of Europe, the per capita consumption of eggs lies at 297 eggs per year – a high level indeed. By 2020, this is expected to increase even...
more, i.e. up to 315 eggs per capita. However, if one looks at the actual development more closely, you will quickly discover that the increase in production takes place in only a few regions (Fig. 2).

In addition, it is striking that the largest increase is expected in regions that have limited feed resources, for example in Krasnojarsk Krai Tumenskiy, Kemerowskiy and in the Nowosibiskiy region, which are in Siberia or in the Leningradadi region (St. Petersburg) in the North. Southern regions of Russia and the Volga region, which have enormous reserves of feed, are rarely mentioned in the plans.

Like almost all countries of the world, Russia has huge problems with obtaining affordable raw feed materials. In recent years, grain was immediately exported after being harvested and poultry farms had to buy their feed at very high prices from distant regions. Raw materials that could be bought at relatively affordable prices, often did not meet the required quality. Grain from subsidized reserves of the country especially led to big problems due to their toxic load. Flocks which were affected due to the consumption of this feed displayed a deterioration in performance and also resulted in mortality. Despite rapid increases in feed prices from about RUB 4,000 per ton in 2008 – 2009 and up to 12,000 – 14,000 RUB/ton in May 2013 despite a relatively constant currency exchange rate of approximately RUB 40/EUR, egg prices remained constant, with the exception of seasonal fluctuations in the summer months. For years now, the delivery prices of the farms (Figure 3, green line) has been under RUB 30 per 10 eggs and the retailer sale price is at about RUB 40 per 10 eggs (Figure 3, blue line).

Through the increasing productivity and efficiency of LOHMANN TIERZUCHT’s laying hens and both of our leading breeds, the LSL-Classic and LB-Classc, we could constantly expand our market shares over the years despite stagnation in the market. The top results of our best customers Sverdlovskaya PF – LTZ customer since 1995, Psychminkskaya PF – customer since 2001, Cheyabinsk. PF – customer since 2001, Roskar – customer since 2004, Okskaya PF and Seniyaevskaya) have set benchmarks for the entire industry (Table 1). The strength of our hens is particularly noticeable in the following figure. Eleven of the 17 largest egg producing enterprises in Russia (11.2 of 32.7 billion eggs produced) keep LOHMANN TIERZUCHT laying hens (Table 1). Today, almost 40 % of Russian eggs are produced by LOHMANN TIERZUCHT hens, with a rising trend.

Another major problem is the supply of chicks and / or pullets to small and medium poultry farms. In the past, i.e. until 1990, almost every poultry farm had its own parent stock flocks as well as an own hatchery. It was therefore possible to offer parent stock chicks from these breeding farms at a cheaper price.

As a result of this, LOHMANN TIERZUCHT GmbH now places a great emphasis on the expansion of our franchise distributors. The years, 2012 – 2020
There are already the first success stories such as in the franchise facilities in Kemerovo. There are already the first success stories in 2011, they started keeping Loehmann’s partner since 2005, the largest breeding farm in Russia, Okskaya was established. With the inclusion of a layer operation, the farm Aleksandrovskiy in Ryasan, which is LTz’s partner since 2005, the largest breeding farm in Russia, Okskaya was established.

In 2011, they started keeping LOHMANN TIERZUCHT laying hens and in 2013, the largest and most unique hatchery in Russia was opened (Fig. 5). With the support of Pas Reform Technik, 15 million LOHMANN hens are produced here every year. The capacity can and should be doubled in a second phase. In order to utilize the hatchery’s full capacity of over 250,000, LSL and LB parents are being reared here. Thanks to modern transport technology, farms can be supplied with day-old chicks within a radius of about 2,000 km.

A major challenge remains in the expensive transportation of PS/GP chicks to Russia. Together with our customers, we are working on an appropriate solution.

Despite difficult market conditions, we still continue to see Russia as a very important growth market.

Dr. Ling Ling Chuah – new team member of LOHMANN TIERZUCHT

Dr. Chuah was born in Malaysia. In 2009, she graduated as a veterinarian at the Putra University in Malaysia. Already during her studies, she was able to gain practical experience within the poultry sector. After completing her training, she was employed at the Technical Service Department at our long-standing customer, Huat Lai Resources Berhad in Malaysia and thereafter, as a Farm Manager at N & N Agriculture PTE LTD in Singapore. After an intensive training program in Cuxhaven from September until December 2012, Dr. Chuah now supports our Technical Service Team in the Asian region and operates directly from her home country, Malaysia.

A new face at LOHMANN TIERZUCHT – Dr. Sohail Habib Syed

We welcome Dr. Sohail Habib Syed as a new member of our Sales and Service Team. Dr. Syed, a native of Pakistan, is a veterinarian and is responsible for the area of Sales and Technical Service in Pakistan. He performs his duties for LOHMANN TIERZUCHT directly from his home country. In order to prepare himself for his new field of activity, Dr. Syed completed a two-month training programme in Germany. Before working for LOHMANN TIERZUCHT, Dr. Syed was employed at Tec Man International as a Sales and Service manager.
In ovo sex determination

We, who are active in the world of poultry, all know it very well, but are you sure that the consumer is also aware that his roast chicken isn’t the brother of the hen laying his eggs for breakfast?

A highly negative correlation prevents breeding improvements in both laying performance and growth at the same time. This is how specialized lines came about as time went by, either for efficient production of high quality eggs or efficient production of poultry meat. Whilst both males and females are fattened in broiler production, it is not possible for males of layers to be reared economically. The result? Routine culling of day-old male chicks in the hatchery which is a great ethical problem and finding alternative solutions to this is a big challenge for breeding companies, science and hatcheries.

In this context, several projects are discussed and underway:

1. Spring chickens: despite their reduced growth performance, males of layer lines are still reared and fattened. Depending on feeding and breed, the birds can be slaughtered at an approximately weight of 650 g after 49 days.

2. Dual purpose breeds: a cross of meat and layer lines which result in a „compromise” that naturally comes along with both a lower egg production and growth performance and higher production costs (feed consumption).

3. Sex determination before eggs are incubated with the aid of optical methods in which light is used for analysis, the germinal disc is examined to determine the size of the chromosome which indicates the sex of the embryo.

4. Sex determination of incubated eggs: male and female embryos can be detected according to different hormone levels in the allantoic fluid.

LOHMANN TIERZUCHT is involved in each and every one of these projects. In one research project, LTZ reared spring chickens and initiated marketing strategies for this niche product. The combined breeding for egg production and growth performance at the same time, resulted in „LOHMANN DUAL”, a dual purpose bird that received a lot of attention at the Franchise Distributor Meeting 2012 in Berlin.

The third and fourth topics – possibilities and applications of in ovo sex determination prior to or during incubation, are subjects of a research project supported by the Federal Institute of Agriculture and Nutrition (BLE), where aside from LOHMANN TIERZUCHT scientists of the universities of Leipzig, Dresden and Jena are involved. The endocrinological approach, i.e. in ovo sex determination by hormone levels, will be described in this article.

For several years now, there are techniques which are known to be able to determine the hormonal status of embryos in the second half of the incubation period (i.e. days 13 – 17). Second phase particles such as sex determining hormones and related substances are accumulated in the allantois – the urinary bladder of the embryo – in different amounts, which can be used for gender differentiation. However, analysis at this stage are relatively late and must also be critically considered from an ethical point of view. According to today’s knowledge, the embryo’s perception of pain begins on around the 10th day of incubation, so culling / removing eggs from the incubator at a later stage cannot be seen as an alternative to the culling of day-old chicks.

In numerous trials with several hormones at different stages of development, the working group of the Leipzig University led by Prof. Einopiar in the Endocrinology Department found out that hormones and their derivates can be detected in allantoic fluid as early as the seventh day of incubation. The amount of estrone sulfate (a form of oestrogen) has been proven to be the best indicator for gender differentiation. Whilst there were no differences on day 7, the amount of estrone sulfate on day 9 was three times higher in female embryos than in males (Weißmann et al., 2013). Hatching eggs containing male embryos could therefore be easily recognised and removed making it possible for only female chicks to hatch after 21 days.

How does this work practically?

Essentially:
1. Eggs are incubated for nine days, as usual.
2. Eggs are candied on day 10.
3. The egg shell of fertilized eggs is perforated (e.g. with a drill) close to the air cell.
4. A small amount of allantoic fluid is withdrawn with a syringe.
5. Hormone content is measured with the aid of an ELISA-test in the lab.
6. The amount of estrone sulfate is an indicator for the sex of the embryo.

With much more eggs than in laboratory trials, the practicability of this approach was tested in the hatchery. In three different trials, allantoic fluid was obtained from more than 4000 LB eggs either on day 9 or 10 of incubation. Almost the same number of eggs was used for each test as control group. All the eggs were labelled and hatched separately under a cover so that the predicted and actual gender could be assigned individually. Furthermore, chicks were weighed individually after each hatch. In these trials, sex could be correctly determined in nearly 95 % of the chicks, with only less than 3 % reduction in hatchability. Chick weight was not significantly different ranging from 379 – 38.6 g.

Have all problems been solved now?

For starters: Yes, sex determination with this technique is indeed possible with sufficient accuracy and only small losses in hatchability. But (and this is a big But!) At the moment, one person is able to take 250 samples on one day in the hatchery. And again one person per day is needed to analyse these 250 samples in the lab since analyses are not possible in the hatchery. Considering that 45 million female chicks are hatched in Germany per year, around 2.3 million eggs would have to be analysed per week!

So although the results are promising, in-vivo sex determination still seems to be far off from daily business. The automation of the technical processes, egg handling and the implementation of short-term analytics in the hatchery are challenges we have to deal with in the near future.

Dr. Anke Förster
Genetics

References:
LOHMANN DUAL –
Layer and Broiler at the very same time

Dear readers,

As you may perhaps remember, we announced the two new layer lines, LB- and LSL-Converter in the last edition of our LOHMANN Poultry News. Two layers which have an excellent feed conversion ratio thereby contributing to more sustainability and conservation of resources. Aside from economical aspects, ethical aspects also need to be considered in animal breeding. One of these animal welfare issues is indisputably the culling of day-old male layers. Therefore, different strategies and approaches, e.g. sex determination on incubated or rather on non-incubated eggs have to be further developed or rather, the utilisation of male layer chicks need to be extensively explored. In regard to the rearing of males, one proposal is the so-called “Spring Chicken” and the other, the dual purpose chicken. What exactly is a dual purpose chicken? Which performances can be expected and how the concept looks like from an economical point of view, are described in the following article.

Whilst hens lay eggs, the cockerels have to gain more meat. The dual purpose chicken unites both of these production forms, but it may also require a compromise from both sides: Laying more eggs and at the same time gaining more meat, is simply implausible. Nevertheless, with the crossbreed “LOHMANN DUAL”, we have attempted to achieve this act of balance. Contrary to the new Converter line which is the result of precise selection from existing lines, the LOHMANN DUAL is a new cross between layer and broiler genetics and combines the advantages of both breeding lines in the best way possible. All females and males of the same hatch are either reared together or separately. However, in order to exploit their full growing potential, males need to be reared separately. If you rear both genders together, you will have to orientate on the females to optimally prepare them for laying. However, in using standardised grower and developer laying hen feed, losses in meat gain on the part of the male has to be accepted. On the other hand, heated houses for the first weeks are linked to high energy costs which can be used more efficiently when rearing all the chicks together.

LOHMANN DUAL Layer

Unlike the LOHMANN BROWN, LOHMANN DUAL layers have a larger appetite. In production, feed consumption is up to 140 g per hen and day. Together with an expected egg number of 250 eggs per annum and a slightly lighter egg weight, LOHMANN DUAL has a less favourable feed efficiency than LOHMANN BROWN. When including feed costs from rearing into economic calculations, feeding expenses alone are € 3 higher per hen housed up to 68 weeks of age, i.e. assuming a feed price of € 35 / 100 kg of feed. Furthermore, egg weight is in a much higher range for LOHMANN DUAL than it is for LOHMANN BROWN layers. Egg size is particularly smaller at the beginning of production. Less eggs and additionally, smaller eggs, reduce egg mass production and therefore, the profit per hen. The difference in profit between LOHMANN DUAL and LOHMANN BROWN minus feed costs is € 6 per bird. This economic disadvantage as well as the appreciable lower ecological balance, resulting from a higher feed intake with simultaneously reduced production of high-quality food, can only be compensated to a small extent by an increased gain of meat in LOHMANN DUAL birds. A practicable and economically viable egg production via dual purpose chickens is therefore only possible when these eggs are sold at a higher egg price. The lighter brown eggshell colour which is clearly distinguishable as compared to LOHMANN BROWN eggs, could be helpful to point out that LOHMANN DUAL eggs do indeed have a unique feature.

Table 1: Economic comparison of LOHMANN DUAL layers

<table>
<thead>
<tr>
<th></th>
<th>LB Layer</th>
<th>DUAL Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg number / 68 weeks</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Feed / day</td>
<td>120 g</td>
<td>140 g</td>
</tr>
<tr>
<td>Feed consumption in production</td>
<td>44 kg</td>
<td>47 kg</td>
</tr>
<tr>
<td>Feed consumption in rearing</td>
<td>6 kg</td>
<td>8 kg</td>
</tr>
<tr>
<td>Feed / egg incl. rearing</td>
<td>158 g</td>
<td>200 g</td>
</tr>
<tr>
<td>Feed costs incl. rearing</td>
<td>€ 15</td>
<td>€ 19</td>
</tr>
<tr>
<td>Profit / hen &amp; 13 kg EM</td>
<td>€ 24</td>
<td>€ 21</td>
</tr>
<tr>
<td>Profit minus feed costs</td>
<td>€ 8</td>
<td>€ 2</td>
</tr>
</tbody>
</table>

Figure 1: Egg production of currently tested LOHMANN DUAL layers as well as the breeding target of this cross and standard LOHMANN BROWN performance.
LOHMANN DUAL Male/Broiler

Live weight gain in LOHMANN DUAL is moderate in comparison to a slow-growing broiler. From week three until ten weeks of age, dual birds and broilers grow further apart. Even on a long-term fattening period of 12 weeks, slow-growing broilers might already become adipose although both breeds had a slight difference in body weight. Fed with broiler diets for 70 days, the dual cockerels attained a live weight of 3 kg. The weight of the carcass was around 2 kg. In terms of carcass performance, there were hardly any differences between the dual cockerels and conventional broilers. The amount of valuable parts was at 50 %. There were hardly any differences between the dual cockerels and conventional broilers. The amount of valuable parts was at 50 %.

LOHMANN BROWN - male

The amount of valuable parts was at 50 %.

LOHMANN DUAL - male

The amount of valuable parts was at 50 %.

LOHMANN DUAL - female

The amount of valuable parts was at 50 %.

LOHMANN TIERZUCHT market leader in Algeria

24 Mio layers are produced every year in Algeria with an unknown number of chicks smuggled additionally into the country over the Moroccan boarder. The supply of layer and broiler chicks used to be the responsibility of the 3 government farms Oravio, Oravie and Orac, named after their location in the East, the West and the center of the country. Nowadays, about 50 % of the market is in private hands with 15 layer parentstock operations mainly in the Northern, fertile and relatively cooler part of the country.

About 80 % of the farmers are producing their own feed due to the high costs and insecure quality of the fabricated feed. A production peak over 93 % is common as well as 12 – 16 weeks of production over 90 %.

LOHMANN TIERZUCHT representative Dr. Salim Benkelil has done an excellent job organizing this fruitful event. Guest speakers from LOHMANN FRANCE, Joël Audefrey and Julien Flori from Bio-Chêne Vert impressed the audience with presentations about layer management and vaccination techniques while LTz sales director Michael Seidel gave an overview of the EW group and the LOHMANN TIERZUCHT company. The meeting was rounded up by a festive lunch.

The next francophone LOHMANN SCHOOL will take place in Nantes in October.

Viola Holik
Area Sales & Service Manager

Table 2: Economic comparison LOHMANN DUAL - male

<table>
<thead>
<tr>
<th></th>
<th>LOH</th>
<th>DUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed costs (€)</td>
<td>2.20</td>
<td>3.00</td>
</tr>
<tr>
<td>Profit per bird (€)</td>
<td>0.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Profit minus feed costs (€)</td>
<td>-1.20</td>
<td>-1.00</td>
</tr>
</tbody>
</table>

Profit per bird € 1.00 € 3.00

Profit minus feed costs € -1.20 € -1.00

A trial with LOHMANN BROWN in the 90’s showed that the egg producers are looking for a much bigger egg size than the LB. Luckily the genetic department had purchased a line with very big egg size from a university in Germany and after a couple of years was able to offer a new breed named LOHMANN TRADITION specially for these kind of markets. With the XL eggs, very calm behavior and good plumage until the end of production which is a very good selling point for the life stock market, this hen seemed to be the ideal line for Africa so the first LOHMANN TRADITION flock was supplied to Oravio in 2003. It became a success story and nowadays 43 % of the egg producers in Algeria are using this breed produced by 6 hatcheries, 5 private and one government farm. Apart from the egg size the Algerian producers are also appreciating the good laying performance of the bird and the excellent shell quality until end of production.

To support the egg producers and breeder customers LOHMANN TIERZUCHT is organizing annual seminars in Algeria as well as bimannual francophone LOHMANN SCHOOLS in either France or French speaking countries, apart from regular technical visits to the farms. This year the Algerian seminar took place in Algiers at the Hilton Hotel with 39 participants and the LOHMANN TIERZUCHT representative Dr. Salim Benkelil has done an excellent job organizing this fruitful event. Guest speakers from LOHMANN FRANCE, Joël Audefrey and Julien Flori from Bio-Chêne Vert impressed the audience with presentations about layer management and vaccination techniques while LTz sales director Michael Seidel gave an overview of the EW group and the LOHMANN TIERZUCHT company. The meeting was rounded up by a festive lunch.

The next francophone LOHMANN SCHOOL will take place in Nantes in October.

Viola Holik
Area Sales & Service Manager
Poultry Red Mite –

a big challenge for egg producers

Among all the poultry Ectoparasites such as fowl ticks, lice and flies, mites are considered to be the most destructive ones. Particularly the poultry red mite (Dermanyssus Gallinae, also known as the Fowl Red Mite) has been identified as the most harmful one for laying hens.

The title “Red” has been given to this mite as it turns from grey to red or dark red after being engorged with blood. Red mites are nocturnal (night-active) parasites which suck the birds’ blood during periods of darkness and hide themselves in all kinds of gaps and cracks during the daytime. This behaviour makes the treatment of red mites harder and more complicated than other mite species like the northern fowl mite (Ophionyssus sylviarum). Unlike the red mite, the northern fowl mite spends its entire life attached to its host. As such, treatment should only be applied directly on the birds. On the other hand, the red mite is able to survive long periods of time in the surroundings without being on the host bird and without even having a single meal of blood. This means that any treatment against fowl red mite must be applied on the birds as well as within the house and on the equipment. This implies that even after the removal of the birds, the poultry house will remain infested for a long time, i.e. if no appropriate treatment would be applied. Furthermore, the long period of egg production allows for red mites to create large populations and cause heavy infestation in poultry farms. Under favourable conditions (i.e. within ambient temperatures of between 25 – 30 °C and a relative humidity of 60 – 70 %), the life cycle of a red mite from an egg to an adult, can be completed within 7 – 14 days.

Fowl red mites are spread almost worldwide. Especially farmers in Europe, the Middle East and Asia do not only suffer from production losses but are also confronted with health as well as financial damages caused by the infestation of these mites. The problem of its infestation and the consequences are often underestimated. Losses due to red mite infestation are estimated to be between 0.50 and 1€ per laying hen per year in Europe and 1€ per laying hen per year in Europe depending on housing system, infestation intensity and control methods.

Conventional treatments:
Synthetic acaricides such as Organo Phosphates, Carbamates, Pyrethroids are the most common chemicals used against mite infestations, although it must be mentioned that due to some problems, their efficiency and the success of their application are getting to be more questionable. Developing resistance against acaricides caused by red mite populations has been ongoing for years now which might make treatment almost ineffective. Furthermore, wrong dosage and improper application of an acaricide can also accelerate the process of resistance development. Using higher dosages of pesticide is also a risk for the health of birds and consumers due to possible residues which might be found in eggs and meat. On the other hand, constant changes in legislations in respective countries and a very limited number of pesticides licensed against red mite, make the situation even harder for farmers to control this pest.

Alternative treatments:
In order to tackle the abovementioned problems and other hindrances in the use of conventional chemicals and pesticides against poultry red mite, new alternative solutions were developed in recent years. It is well-known that “Essential oils” derived from plants such as garlic, neem tree, thyme and tea have a toxic effect against red mites. Based on this fact, various products in forms of drinking and feeding additives are available on the market. Side effects such as tainting eggs may occur whilst using these products.

“Biological pesticides” such as Spinosad which has been used against mites of agricultural crops for several years now, also have a good reputation for controlling poultry mites. Spinosod is a natural product based on the fermentation of the bacteria S. Spinosus. Proper application is essential for a successful treatment.

Using so-called “Predator mites” is another rather new method of controlling red mites. As a natural enemy, the predator is able to combat and eat poultry red mites. Choosing the correct predator candidates in addition to proper management are essential for this method of control.

Based on the fact that temperatures above 45 °C are considered lethal for poultry red mites, “Heat treatments” have been practiced lately in European countries. Heating up the poultry house to up to 60 °C for about 2 hours or 45 °C for a longer time after birds are removed, are common models of this treatment. The fusibility of plastic parts of the equipment might be considered and treatment should be performed by experts with great caution.

“Low temperature treatments” with liquid nitrogen and dry ice have also been experimented on. These methods are too expensive and still need to be developed for common practice.

Special “Intermittent lighting programs” are also tools to control red mites and this is being practiced mainly in Middle Eastern and African countries. Negative effects on feed consumption, laying performance and disturbance of circadian rhythm can be expected. However, the European bird welfare legislation forbids such lighting regimes.

An example of a very common treatment against poultry red mite in Germany and the Netherlands is the use of “Inert dusts”, a physical treatment based on Silicon Dioxide compounds which blocks the joints between chitin shell and causes the immobilisation of mites. Furthermore, siltate dust enters the respiratory system of the red mites causing suffocation. Choosing the proper product, mixture, particle size, pressure and appropriate application are crucial for a successful treatment. On the other hand, application of inert dusts in poultry houses causes stress and health problems for birds and staff. The impact and side effects of this treatment should be further investigated.

The most important consequences of red mite infestation are as follows:

- Restlessness and stress in the flock (esp. during the night and in the nest)
- Skin irritation, reduced plumage quality, dermatitis
- Feather-pecking, cannibalism
- Weight loss, anaemia (pale wattles and combs as an indicator)
- Drop in egg production
- Increase of second-grade eggs
- Transmission of poultry diseases and zoonosis (Salmonella, ND, Pasteurella, etc.)
- Reduce of seminal fluid volume in parent stock male birds
- Mortality in cases of extreme infestations
- Health problems and stress for the farm staff (Dermatitis, allergic reactions)

Apply a treatment in case as the mites have been detected and before the mite population increases. (A heavy infestation of foal red mites in a poultry house, Photo: Frank Marzouk / L202)
The development of "Vaccines" is also another alternative solution in controlling the populations of poultry mites. There are different research groups which are working on identifications and characterisation of possible antigens against red mites. If such vaccines can be successfully developed, the first candidates for a commercial vaccine against poultry red mites might just be available in the near future.

General Recommendations

Some simple basic tools besides biosecurity measures and hygiene management issues can be very useful in controlling the infestation of red mites. Some of these are as follows:

- Find an effective and individual concept, e.g. the combination of different treatments suitable for your farm and housing system.
- Give mites little or no possibility to hide themselves in equipment and in the building of your farm.
- Use monitoring tools like mite traps to start a treatment as soon as the first mites have been detected and before the mite population increases.
- Apply treatment directly after the removal of the birds and before the mites get a chance to hide themselves in cracks and crevices.
- The use of an effective insecticide against red mite eggs is highly recommended since many treatments do not show efficiency against mite eggs.
- Prevent the occurrence of red mite re-infestation in your farm (from rearing, construction of houses, transport vehicles, staff, visitors, wild birds etc.)

Conclusion

Unfortunately, the current treatment methods which are available are not effective enough to keep red mite infestation under control in many poultry farms worldwide. The ban of conventional cages in Europe and keeping more laying hens in alternative systems like free-range which is, by the way, favoured by red mites, make the situation even more difficult. These kinds of systems give mites more hiding possibilities and they can therefore escape control methods more easily. Hence, there is still a great demand in developing more useful effective treatments such as vaccines to keep red mite infestations under control. However, controlling red mite population still remains a very big challenge in the keeping of laying hens.

Farhad Mozafar
Technical Service

LOHMANN...Research + Development

Ghen Corporation has been rising
LOHMANN’s sun
in Japan for 50 years now

Since its foundation by former chairman Hideo Tokoro in 1963, Ghen Corporation of Gifu, Japan has grown to be the undisputed leader in the Japanese layer chick industry. At present, this full subsidiary of EW Group supplies nearly 90 % of all layer breeders in Japan.

About 22 independent hatcheries purchase breeders from Ghen’s GPS operation and distribute the layer chick in all over Japan. Despite the Japanese consumers prefer white-shelled eggs which is about 65 %, brown (28 %) and tinted (7 %) eggs are also sold as so-called branded eggs.

A recently founded company called Nihon Layer which also belongs to the EW Group is a key producer of commercial layer chicks with an annual capacity of almost 2.5 million chicks. Since the early nineties, the market share of LSL commercial (called Julia in Japan) has grown to more than 85 % of the domestic white egg layers. LOHMANN TIERZUCHT supplies both LSL-Classic and LSL-Lite grandparents to Japan to safeguard continuous production of breeding stocks. Both breeds form a perfect match for producers who need M and L class eggs. In 2012, a variety of LSL called “LSL-Ultra-Lite” with predominantly M-S sized eggs completed the package.

LOHMANN TIERZUCHT senior staff attends celebrations

During 2013, several events were organized to commemorate the anniversary of the company. Earlier this year Mr. Erich Wesjohann, chairman of EW Group, attended the so-called “Presidents Celebration” which was also attended by owners of all hatcheries. In August, a party was arranged for Ghen’s staff where LOHMANN TIERZUCHT was represented by its Managing Director Prof. Dr. Rudolf Preisinger and Sales Director Michael B. Seidel. On this occasion, they expressed their gratitude for the great achievements Ghen’s team has realized over the years.

Ron Eek
Area Sales & Service Manager
Ommat achieves another milestone

First layer hatchery in the Gulf region starts production in November 2012.

In mid-November 2012, Ommat Co., also known as Arab Poultry Breeders Company with its main office in Jeddah, Saudi Arabia, hatched their first batch of LOHMANN LSL chicks in their brand new hatchery in the United Arab Emirates (UAE).

The table egg market in the UAE has enjoyed a dramatic growth in recent years with about 12 modern layer farms at present. Individual companies have very strong supply of locally produced layer chicks. can only partly be transferred to consumers as authorities put price caps on essential foodstuffs like eggs and no governmental subsidies are granted.

The project is located in the emirate of Abu Dhabi, about 230 kilometers west of the capital in a remote desert area, free of any other poultry projects. The building has a dimension of 70 x 36 meters and is equipped with Genesis 4 incubators from ChickMaster and PasReform air handling equipment. At present, 12 setters and 6 hatchers have been installed giving a total annual capacity of 75 M. layer chicks.

The hatchery was built with an eye for the future; the total capacity can be easily extended to 10 M. layer chicks within the coming years.

With the design and materials used for construction, high emphasis has been put on hygiene and one-way principle of hatching eggs, without any cross-overs. A team of about 15 experienced hatchery staff has been hired, completed with drivers for the brand new chick trucks which will transport chicks directly from the hatchery to the customer’s brooding facilities. Logistics and service will be organized from the office near Abu Dhabi.

The preparation and design of the project started back in 2008 when layer chicks supply to the UAE and other Gulf countries faced some problems due to import restrictions. Ommat took their responsibility and dedication towards their customers seriously and decided to build an operation in the area. Besides supplying chicks to Oman and have exports to third countries through the well-connected airports in UAE.

Ron Eek, area manager for sales and technical support, visited Ommat’s hatchery in December 2012 and was impressed by the high standards of the facility. This hatchery exceeds standards used in modern hatcheries in Europe and USA where environmental constraints, energy-saving issues and limitation of labour force are more important than common sense production of top-quality chicks.

Traditionally, individual farms in the Gulf region used to import layer chicks from Europe. Nowadays, only very few farms continue to import from overseas.

Domestic production prevails due to:
- increased freight charges by airlines and limited capacity to transport live chicks
- reduced number of sizeable flocks of white layer-type breeders in Europe due to a shift to brown layers

The advantages are:
- quality compromises for chicks by air-freight compared to direct delivery by special chick trucks
- convenience of direct delivery by truck as compared to own airport transfer
- presence of service staff is a clear advantage especially when the layer farm requires fast support
- common countries are banned for export due to veterinary restrictions; domestic supply gives security

Ommat group is part of a high profile multinational group of companies founded by Mr. Hussein Bahri in 1989. Over the years, the group has expanded their position in the Middle East poultry industry continuously with subsidiaries in Egypt and Sudan (broiler-breeders) and processing) and Abu Dhabi (UAE) and Jeddah (Saudi Arabia) for the layer chick business.

For more than 20 years now, Ommat is the exclusive distributor of LOHMANN layer chicks in Saudi Arabia, the Gulf region and Yemen with well above 75 % market share in the region. LOHMANN TIERZUcht takes great pride in cooperating with a professional partner such as Ommat. The combination of outstanding genetics and excellent distribution and service by Ommat is the basis for success for the table egg producers in the region.

Ron Eek
Area Sales & Service Manager

Table 1: Table egg production / consumption in the Arabic Peninsula

<table>
<thead>
<tr>
<th>Country</th>
<th>Production (M.) 2012</th>
<th>Production (M.) 2015 (expected)</th>
<th>Consumption eggs / person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>50</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Kuwait</td>
<td>445</td>
<td>461</td>
<td>182</td>
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<tr>
<td>Oman</td>
<td>163</td>
<td>192</td>
<td>73</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>3418</td>
<td>3804</td>
<td>115</td>
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<tr>
<td>Uld. Arab Em.</td>
<td>465</td>
<td>478</td>
<td>128</td>
</tr>
<tr>
<td>Yemen</td>
<td>1230</td>
<td>1538</td>
<td>47</td>
</tr>
<tr>
<td>Arab. World</td>
<td>30.556</td>
<td>33.549</td>
<td>83</td>
</tr>
<tr>
<td>World</td>
<td>1.044.050</td>
<td></td>
<td>157</td>
</tr>
</tbody>
</table>
LOHMANN TIERZUCHT successful at the IPPE (Atlanta) and the VIV Asia (Bangkok)

LOHMANN TIERZUCHT can glance back at two successful shows. Interesting discussions with an interactive exchange of great knowledge, not to mention the acquisition of new customers have made these two shows a great success for us. The gathering of international poultry experts is always an ideal opportunity to network with other experts from the poultry industry.

*We look forward to the upcoming SPACE exhibition in Rennes, France from September 10th to 13th September 2013!*

Stella Schnor
Marketing

EuroTier 2012 – a big success

From November 13th – 16th 2012, Hanover opened its doors once again to welcome the EuroTier. After 2008, LOHMANN TIERZUCHT presented itself with a new booth at the fair. With 2428 exhibitors, an area of 251,000 square meters and 159,896 visitors, the EuroTier in 2012 was once again very successful.

The booth was visited by a great number of visitors and as expected, interesting discussions and lively exchanges took place between customers and new visitors. The booth party which was also a highlight for LTZ at the show was a great success and was attended by over 200 guests. Finger foods, drinks and good music rounded up the last day of the exhibition.

Stella Schnor
Marketing
LOHMANN LSL wins the first prize at the egg quality contest held at the Festa do Ovo in Bastos (Brazil)

The Festa do Ovo is one of the few shows exclusively dedicated to the layer business worldwide. It is held every year in Bastos, a small city located in San Pablo state. This region has a high concentration of egg producers with 20 million layers housed in very different types of management systems. The highlight of this show is the egg quality contest and its results are anxiously expected not only by the local poultry people, but also by all Brazilian egg producers.

The selection and scoring of the eggs sent by the participants is performed by 13 judges by means of a very sophisticated procedure that guarantees absolute fairness and anonymity. Each egg producer is allowed to participate with two samples (30 eggs each) of each layer type (white and brown). The minimum egg weight is 60 gr. Each sample received a coded identification. The panel of 13 judges consists of vets, poultry technicians and researchers as well as one representative from each genetic provider.

The procedure is as follows:

First step: Visual Selection
Each judge selects the best 12 samples of each colour in terms of the external quality (shell smoothness, uniformity in colour, egg shape etc.).

Second step: Closer subjective selection
The judges are divided into groups and each group gives scores to the pre-selected best samples in terms of external and this time, also internal quality of 6 eggs per sample that are broken for this purpose.

Third step: Mechanical scoring
Parallel to the scoring of internal quality, the so-called “Digital Egg Tester Electronic Machine” will give an index for each sample which includes egg shell thickness and resistance, egg weight, egg yolk colour and Haugh Units. This step bears the same importance in the scoring as with a group of judges (maximum 300 points)

After six hours of intensive selection work, the six best samples of each colour would be announced.

This year, the winner on the white sector was the LSL sample presented by the farm Granja Ovo Forte by Mr. Francisco Nunes da Silva also known as “Tica”. Mr. da Silva is a Poultry Technician with 35 years of experience and has reared layer pullets for the Brazilian market for 20 years now. Only three years ago, he started his own business and presently has 80,000 layers in production. The high quality of the eggs produced by his LSL flock at 30 weeks of age is expressed by the score of 1118 points. His company was awarded with the first prize whereas his contenders received the second prize for a score of 1062.50 and the third prize for 1057 points. We congratulate him and the members of the Technical Service of LOHMANN DO BRASIL who supported him with nutrition and management advice to achieve this highly regarded prize.

Dr. Luciano Cousinet
Area Sales & Service Manager