

SPS Trade Experiences and Challenges in APAC: A Poultry Perspective

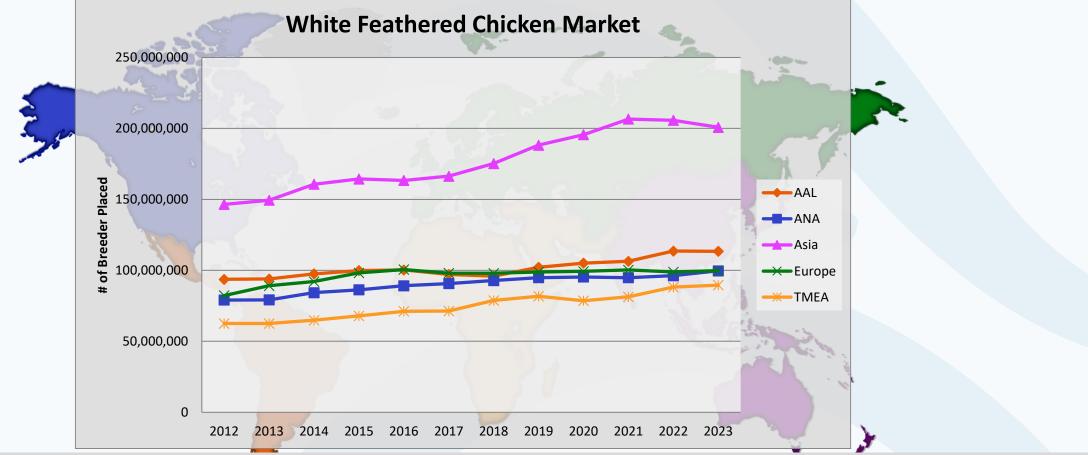
Rafael Monleon, DVM, MSpVM, ACPV, PAS, MBA Business Manager, APAC - Aviagen Asia Pacific December 2023

Aviagen 2023 Global PS Market Volumes – White Feathered Chickens



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Aviagen[®] World PS Market Change Volumes



% Change vs. Previous Year												Total Change	Average
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2008 - 2023	Change
AAL	0.3%	3.9%	2.4%	0.4%	-3.1%	-1.3%	6.6%	2.9%	1.2%	6.7%	-0.1%	21.1%	1.9%
ANA	0.2%	6.4%	2.4%	3.4%	1.7%	2.4%	2.2%	0.5%	-0.5%	1.5%	3.6%	26.1%	2.4%
Asia	2.0%	7.5%	2.3%	-0.6%	1.8%	5.4%	7.4%	3.9%	5.6%	-0.4%	-2.4%	37.0%	3.4%
Europe	8.4%	3.3%	6.6%	2.4%	-2.6%	-0.0%	0.9%	0.5%	1.0%	-1.4%	0.9%	21.3%	1.9%
TMEA	-0.0%	3.8%	4.7%	4.8%	0.2%	10.4%	3.8%	-3.9%	3.5%	8.3%	1.6%	43.2%	3.9%
Total	2.2%	5.3%	3.4%	1.5%	-0.2%	3.3%	4.6%	1.4%	2.7%	2.2%	0.1%	30.0%	2.7%

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COMPANY

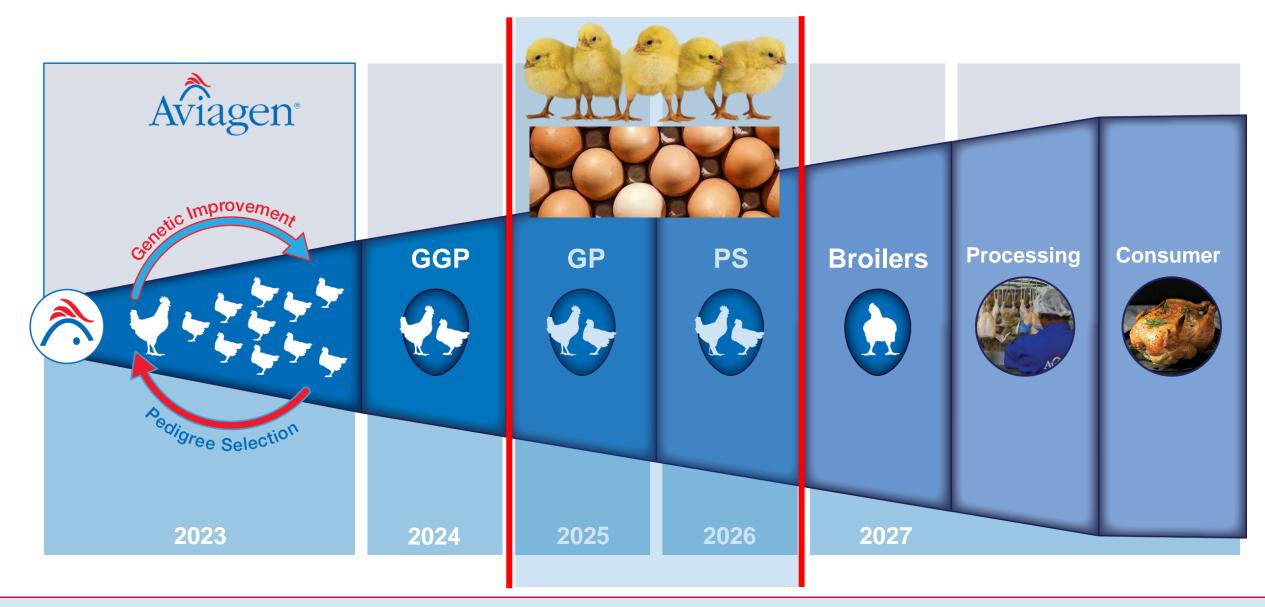


- The world's preferred supplier of quality broiler breeding stock
- Owned by EW Group
- Headquartered in Huntsville, Alabama USA
- More than 8,000 employees globally
- Distribution network serving more than 100 countries
 - Wholly-owned operations on six continents
 - Joint ventures across Asia
- Most diverse range of brands / products
 - GP DOC
 - PS DOC / HE

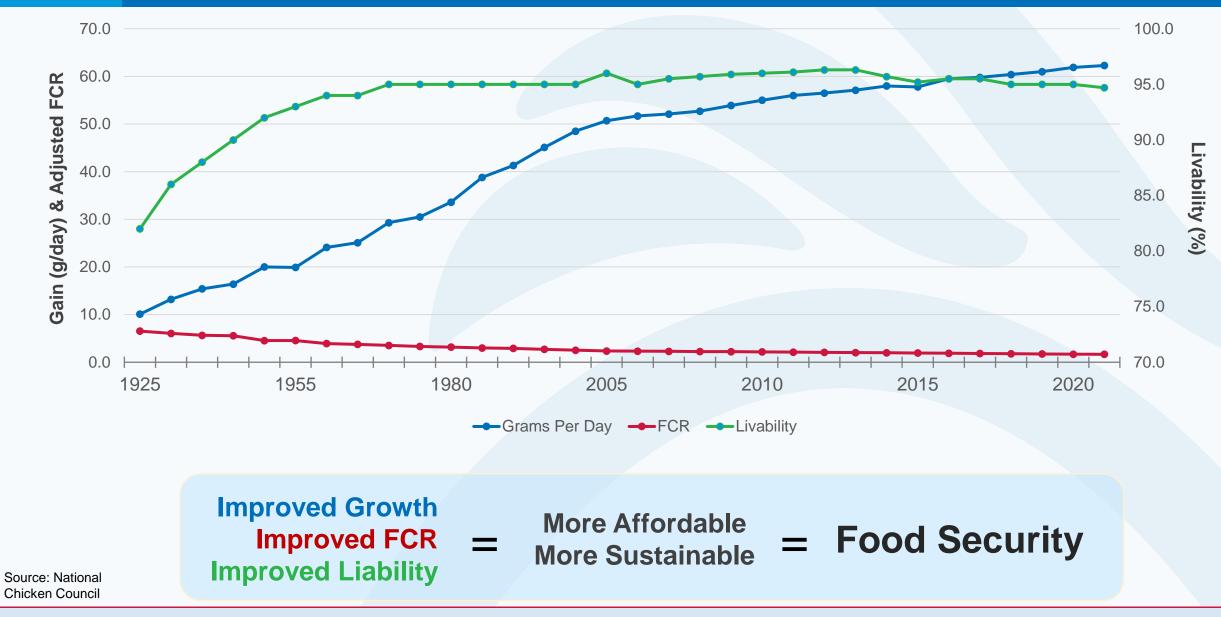




Aviagen Breeding Structure of Chickens



Aviagen Benefits of Selective Breeding



Aviagen – Global Distribution Network



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Aviagen Aviagen – The Brands Customers Trust

- Trusted brands for conventional markets:
 - Arbor Acres over 80 years strong, one of the oldest most respected brands in the industry
 - Indian River has a long history of success and is the difference maker in challenging environments
 - **Ross** the world's most popular broiler breeder brand with reliable and balanced performance
- Specialty breeds for unique markets
 - Rowan Range for the slower-growing, free-range, and organic markets
 - **Specialty Males** portfolio provide greater flexibility for our customers in their breeding stock choices





Aviagen – Leading in Production and Facility Investment

- Over 500 farms
- More than 30 hatcheries
- Production facilities on 6 continents
- Parallel R&D facilities
- Largest product portfolio



Aviagen - North America











Aviagen Aviagen – America Latina















Aviagen Aviagen – Comprehensive Biosecurity Program

- Rigorous protocols to control movement of people, stock, and equipment
- Significant investment in BIOSECURITY
- Parallel breeding programs in the U.S. and U.K.
- State-of-the-art feed processing facilities ensure feed safety for internal flocks
- Diagnostic laboratories and comprehensive health monitoring program reduce contamination risk and promote bird health
- Aggressive approach to prevention









- Compartmentalization is a concept developed by the OIE (World Organization for Animal Health).
- Government approved program based on an approved biosecurity system to maintain the distribution – trade of breeding stock when an area of the country is affected by notifiable disease, namely Avian Influenza (AI) or Newcastle Disease (ND).
- Major step (and investment) to ensure the uninterrupted supply of breeding stock.
- Aviagen in India achieved Compartment status in 2014
- Aviagen in the US was the 1st poultry breeding company to be approved for the US Avian Clean Compartment in 2017









- Countries have different import requirements agreed generally on a bilateral basis
- Aviagen in the UK (example) will ensure that
- 1. Flocks of origin (and hatcheries) will all be participants of the government supervised **Poultry Health Scheme**
- 2. All stock must be **free from all major infectious poultry diseases** including all Salmonella serotypes and *Mycoplasma gallisepticum* and *M. synoviae*.
- 3. None of the supply flocks have been treated with antibiotics for the control of *Salmonella*
- Our other supply bases (USA/AU/NZ/Others) follow the requirements and regulations set forth by the individual trade agreements between countries.

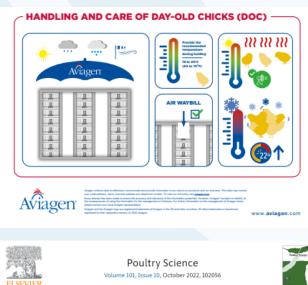


WELFARE



- In addition to Health/Biosecurity, animal welfare is key to Aviagen
- At each step of the chain:
 - Farm and hatchery: egg handing, and welfare of chicks and poults
 - **Planning of transport**: journey, transport means, tracking of journey (temperature etc), additional support at each step e.g. airports
 - Training: internal and to contractors
 - **Technical support** from our staff at entry of farm, and feedback of first week information
- In cooperation with partners at the chain:
 - We actively contribute to dialogue with international organisations, often via our associations, with expert inputs and data, e.g., via International Poultry Council, Animal Transport Association, and specific international Air cargo Committees (airlines, breeders)
- Via research:
 - We follow and contribute to science and peer reviewed articles, to continuously improve welfare, and also to backup practical knowledge with large scale scientific information in peer reviewed scientific journals, e.g. on journey time.





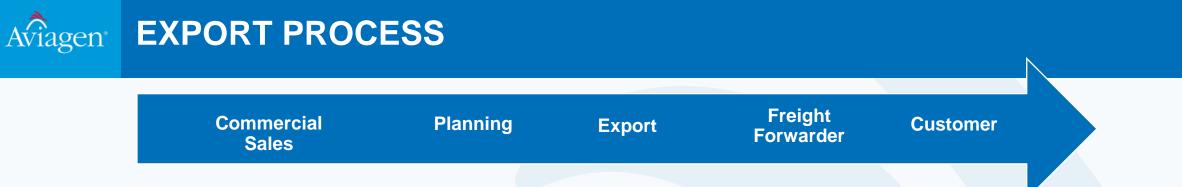
Influence of the preplacement holding time and feeding hydration supplementation before placement on yolk sac utilization, the crop filling rate, feeding behavior and firstweek broiler performance 1

<u>S. Özlü</u> ", <u>T. Erkuş</u> [†], <u>S. Kamanlı</u> [‡], <u>A.D. Nicholson</u> [†], <u>O. Elibol</u> " 🙁 🔀

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PROCESS



- Hatching eggs set in the machines; chicks hatch 21 days after setting.
- Export team books flights, prepares export documentation.
 Day old Chicks are serviced at the hatchery with vaccinations and services specific to the customer request
- Tests, regarding disease free donor flocks as per the specific health certificate (AI, Newcastle, Salmonella etc.), need to be done at registered labs with negative results.
- Every export of day-old chicks or hatching eggs includes a veterinary health certificate signed by the State Veterinarian of the exporting country.
- Hatchery and Production Farms must be located in disease-free area (HPAI or Newcastle disease).
- Document package will accompany the shipment, which includes, Invoice, Packing List, Vaccination program day old chicks.
- GPS sensors track temperature, location, humidity and light and monitored by Aviagen staff.
- Optimal welfare conditions for the journey are prepared and monitored.

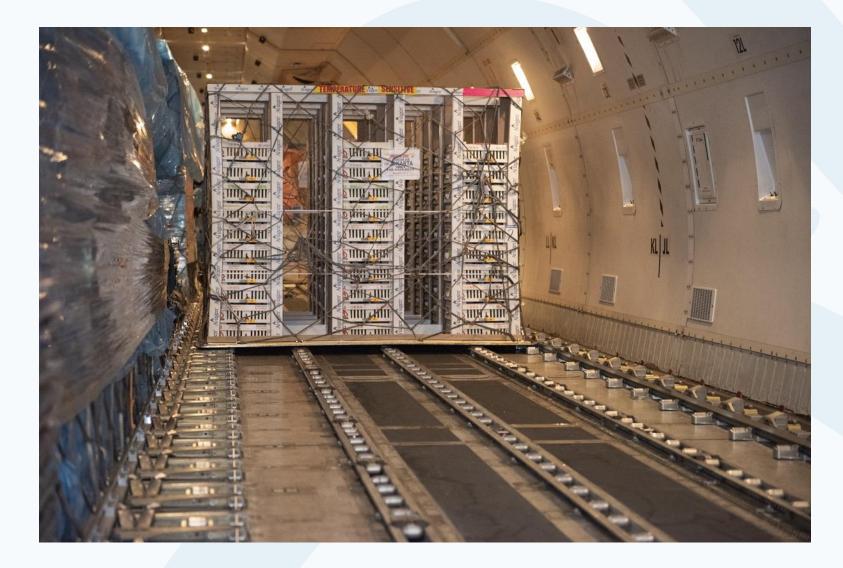


Temperature controlled chick chambers at JAS Global Freight Forwarder at Heathrow



Aviagen export video

Aviagen[•] Custom International pallet design





- Every customer will need an import permit for each order of Day-old Chicks or Hatching eggs.
- After receiving detailed veterinary information from the supplying country regarding animal disease situation, status donor flocks, disease free areas at the hatchery and production farms, the government will approve an import permit for the customer.
- The receiving country will check disease status of the supplying country in WAHIS database (WOAH).
- When chicks arrive at the airport, the veterinary officer will check the shipment and veterinary health certificate and give approval to send the chicks to the local customer.



Aviagen Quarantine process (if required by country)

Same procedure as import process with the addition of the following steps:

- When chicks arrive at the customer's, the local veterinarian will inspect the first 21 / 30 days that no other chicks will be added in the farm.
- Depending on the quarantine requirements, chicks will be tested weekly.
- Local or state veterinarian will visit the farm and take samples for testing on Salmonella disease, Avian Influenza, Newcastle disease.
- Samples are tested in official registered Government lab.
- After 21 / 30 days quarantine period will be official released.





CHALLENGES

Aviagen supplies breeding stock to our customers to feed the world.

Main challenges that we face:

- Global HPAI situation is a challenge to guarantee a continuous supply to our customers due to embargo to countries or regions with outbreaks or inability to transit through a country.
 - Interpretation and application of regionalization (zone/compartment) and definition (poultry/backyard poultry)
- Airline management of schedules/type of aircraft, etc. / transshipments
- Customs documentation / speed of clearance
- Freight forwarders proficiency / monitoring
- HPAI vaccination Some countries have or will start a vaccination program for HPAI
 - Aviagen will not vaccinate. We will need intensive global communication with governments to continue to supply our non-vaccinated birds to our customers.
- Upcoming legislation in 2024/2025 will bring additional animal welfare regulations in topics such as maximum transportation times day old chicks, temperature-controlled vehicles etc. Might require large scale trials to develop sciencebased measures.
- Political relationships between exporting and importing countries.

Thank you.