

Interview with Santiago Avendano Aviagen Genetics Director



Robert Roszkopf, senior operations manager, Aviagen® South Africa and Santiago Avendano, Director Genetics got a chance to discuss progress.

Robert: Hello Santiago and welcome to South Africa. In a few words could you highlight the management strategy for the Ross® Breeding program?

Santiago: Ross is focused on selecting the pedigree lines in a balanced breeding program which includes groups of traits related to biological efficiency, skeletal and metabolic fitness, robustness, reproductive fitness, health and welfare. From as early as the 1970's we have selected for skeletal and metabolic fitness and since early 2000's we operate a multi-environment selection strategy to better represent the field challenges and identify robustness as a key target in our breeding program. The Ross breeding program also has a long history of investing in new and sophisticated technologies like

transponder technology to measure feed intake and the efficiency of individual animals in group situations, imaging technology to measure meat yields and skeletal integrity and pulse oximetry to assess cardiovascular function. In 2012 we have added the use of genomics information to further increase accuracy and the rate of genetic progress. These technologies are an investment to maintain leadership in the global market.

Robert: Santiago, you mentioned the genetic progress and product improvement, please outline the expected annual performance improvement for the Ross 308?

Santiago: We measure multiple traits and progress all the time and have the current predicted annual rates of genetic improvement for the Ross 308 over 2015-2019 as follows:

ANNUAL GENETIC IMPROVEMENT

For the broiler:

- Growth: +45 to 60 grams per year
- FCR: -20 to 30 grams of feed per Kg of live weight produced
- Livability: +0.05% to 0.10% per year
- Whole Yield Bird: +0.20% to 0.25% per year

For the breeder:

- Hen House Production: +0.15 to 0.20 egg per year
- Cumulative Hatchability: +0.25% to 0.30% per year

These predictions of genetic improvement and expression are

dependent on the right management, nutrition and bird health procedures being followed in the field.

Robert: What are the most significant contributors to the broiler performance today?

Santiago: In the broiler, clearly feed conversion rate (FCR) is a main driver in the breeding goals, but at the same time the Ross product has to have the robustness to perform in the field. We focus on multi-environment selection to gain efficiency and health through adequate gut health, immune response, metabolic function and skeletal development. In the breeder, reproductive fitness, persistent production, good fertility and hatch is key to having the most competitive package.

Robert: What did you see from the birds in the field during your visit here to South Africa?

Santiago: In South Africa I had the opportunity to see how genetic potential is expressed in the field through management that has adapted to the local conditions both at sea level and over 1500 meters. It was great to see breeder flocks in open-sided houses achieving the performance standards of over 85% peak production, more than 84% cumulative hatch, laying over 180 cumulative eggs and producing in excess of 140 chicks. This visit has offered a clear example of how genetic potential can be realized in the field by the joint efforts by support personnel from Ross and its customers.