

The on-farm programs
Nutritional programs in gut health and broiler breeder diets can be applied on-farm to promote farm efficiency.

Biacid™ and Grolux™ are specialty products that have been developed to help achieve broiler flock potential through improved gut health under different conditions.



Gut health products for broilers		
Product	Unique features	Benefits
Biacid™	Specially selected and stabilised essential oils and organic acids	Promotes gut health Consistent improvements in feed conversion rates and body weight Payback of four times the cost when included in rations Benefits in optimal conditions
Grolux™	Family of botanically derived products Directly available energy source from high quality medium-chain fatty acids	Positive influence on microbial gut populations Improved feed conversion and body weight gain Beneficial in sub optimal conditions, such as in wet litter and where footpad dermatitis is a problem



Broiler breeder nutritional programs		
Product	Unique features	Benefits
Provimi Broiler Breeder feeding strategy	Feeding program that can promote higher body weights in the rearing phase to increase egg size at start of production; Reduce crude protein in the laying phase to avoid eggs becoming too large at the end of the cycle and increase persistency	Diet manipulation to achieve an optimum hatching egg size and persistency, thereby promoting lifetime productivity
Proviox™ 50	Feed additive that can improve the antioxidant status of the bird	Benefits passed from breeder to offspring seen in increases in body weight of offspring

The Broiler Breeder Feeding strategy and Proviox 50™ are designed to improve the performance of the broiler breeder and its offspring.

Provimi™
is a brand of Cargill®

Provimi™ is brand of Cargill®, a family-owned company with more than 150 years' experience in developing food and feed ingredients. Cargill® develops result-oriented nutritional solutions and feeding programs, which help producers and their suppliers grow their business. Premixes and concentrate feeds for ruminants, swine and poultry are produced under the Provimi™ brand as well as specialty feeds, such as piglet feeds, calf milk replacers and additives. We work closely with our customers to implement bespoke feeding programs on farm.



**Farm Efficiency
Today & Tomorrow
for Poultry**

Improving poultry farm efficiency

Nutritional strategies for poultry producers who are continuously striving to improve the health and performance of their birds to promote farm efficiency.

Promoting farm efficiency calls for consistent and robust bird performance achieved under high welfare conditions and with less reliance on antibiotics. Cargill®’s nutritionists, working with producers, aim to implement tools that will meet these goals and improve farm efficiency.



A healthy gut leads to healthy birds and enhances welfare. This is recognised as part of responsible farming practice.

Meeting the challenges
Environmental conditions and stress factors – such as disease, poor feed quality, dietary changes and high microbial counts – can hinder the unit’s ability to reach its potential. Producers will know that these challenges can widen the gap between actual performance and the bird’s genetic potential.

A robust feeding strategy and innovative products will help to elevate the effects of these challenges. Cargill has focussed on two key areas to help producers to maximise flock potential: gut health in broilers and productivity in broiler breeders.



Nutritional expertise is key

Nutritional programs and specialty products, to improve productivity and support responsible farming, have been the focus of Cargill’s poultry research. This delivers innovative insights for the company to work with and it offers producers:

- diagnostics to assess unit performance
- bespoke nutritional strategies to help overcome unit challenges and improve performance
- technical support on farm to implement programs and monitor success

Farm efficiency is supported with improved gut health integrity and performance in broiler breeders and their offspring.

Better gut health

Gut health improvements can protect birds from the adverse effects caused by stress factors and sub-optimal conditions. A healthy gut leads to healthy birds and enhances welfare. This is recognised as part of responsible farming practice.

Biacid™

Biacid™, from the Promote range of feed additives, can improve feed conversion ratio and growth. Average results, based on 34 in vivo trials, show that Biacid™ improved feed conversion (FCR) by 2% and body weight (BWG) by 2.5%

Grolux™

The family of Grolux™ Poultry Integrated Solutions provides a reliable energy source to broilers, particularly in suboptimal conditions. Grolux™ can give an improvement in feed conversion between 2% and 6%, an average body weight gain of between 2% and 4%, and a reduction in pododermatitis and leg culls.

Broiler Breeder Feeding Strategy

The Broiler Breeder Feeding Strategy is another development that supports farm efficiency. It is based on the effects of dietary changes on broiler breeder and offspring performance.

Proviox™ 50

Proviox™ 50 is particularly beneficial when added to broiler breeder diets where it can improve the antioxidant status of high performing animals cost-efficiently. It can also influence the performance of their offspring by increasing final body weights by 70g.

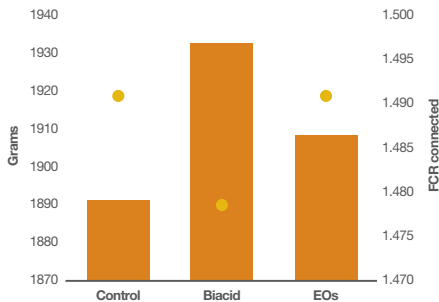
Strategic diet manipulation

Broiler breeder units will have different performance levels and targets. The Broiler Breeder Feeding Strategy supports efficient and economic production in two ways:

1. Rearing heavier breeders:
 - promotes the earlier onset of egg production and increases egg weight by 2g.
 - increases the laying percentage by 2.8%, leading to five extra eggs per cycle.
2. Reduced dietary crude protein in the laying phase:
 - reduces feed costs
 - avoids eggs becoming too large and increase laying percentage

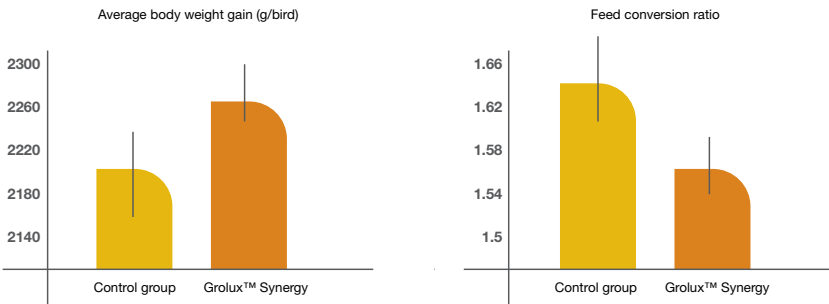


Effect of Biacid™ on feed conversion and growth compared with essential oils only and the control (0-33 days)



Biacid™ improved feed conversion and body weight gain, confirming the benefit of combining essential oils and organic acids.
Source: Cargill France 2014

Effect of Grolux™ on body weight gain and feed conversion ratio.



Results of using Grolux™ in three cycles at a commercial poultry integration at an inclusion level of 2%. The black line shows the standard deviation of the results from the three cycles.
Source: commercial poultry integration.