

**Cobb**

**AVIAN 48**

# Product Profile



# Breeder

## Cobb Avian 48

### New breed developed by enhanced selection program

The Cobb Avian 48 is the latest product from Cobb-Vantress Inc, developed for customers seeking high chick numbers and outstanding broiler performance, primarily for whole bird markets.



This new breed is the direct result of the enhanced breeding resources of Cobb with the acquisition of the Avian lines in 2000. The Avian lines were developed in the United States through the 1980s and 1990s, and now provide a wider gene pool and new opportunities for Cobb geneticists to add to the company's portfolio of breeds to meet specific market demands.

The breeding program benefits from Cobb's increasing investment in research and development, which has totalled more than \$200 million over the last ten years. This shows the value and commitment which the parent company, Tyson Foods Inc, attaches to continuing breed improvement.

Breeder Performance			
Age at depletion	(weeks)	60	65
	(days)	420	455
Age at 5% production	(weeks)	24	24
	(days)	168	168
Total eggs/hen housed		164.2	180.6
Hatching eggs/hen housed	(50g minimum)	158.8	174.7
Peak hatchability	(%)	91	91
Average hatchability	(%)	86	85
Broiler chicks/hen housed		136.2	148.6
Livability from 24 weeks	(%)	92	91

Global Cobb Avian 48 Performance (to 65 weeks)			
	Average	Top 25%	Target
Total Eggs	177.0	182.0	180.6
Hatching Eggs	170.0	174.0	174.7
Hatch %	84.8	86.7	85.0
Chicks	144.0	151.0	148.6
Mortality %	9.9	8.5	8.7

New investment in Cobb Avian pure line facilities at the mountain-top Monticello base in Kentucky, advanced family evaluation techniques and the enlarged pedigree population result in Cobb Avian products which today considerably outperform the original stock. The male has excellent fertility and broiler traits, while the female lines produce at least five hatching more than in 2000.

The Cobb Avian 48 has been selected for high egg and chick production - six to seven more eggs than the Cobb 500 - while attaining broiler performance close to the world-beating standards of the Cobb 500. Good early egg size enables broiler bodyweight targets to be met at seven days of age, with controlled size later in lay so that average egg weight does not surpass 70 grams at 65 weeks of age.

The Cobb Avian 48 is showing considerable resilience and natural good health, with the ability to perform well in a wide range of environments.



# Broiler Cobb Avian 48

## Well suited to whole chicken markets

The Cobb Avian 48 is aimed at markets where there is an emphasis on broiler traits, live performance and the requirement for low-cost chicks.



Extensive trials and commercial results in North and South America and in Europe, show the ability of the Cobb Avian 48 to achieve broiler growth, feed conversion and livability similar to the Cobb 500. This makes the new breed well suited to smaller, whole chicken markets as well as for fast food and eight to ten piece cut up operations.

As with the Cobb 500, the Cobb Avian 48 scores heavily

on the low overall cost of chicken production but with a slightly lower breast meat yield.

The bird achieves consistent feed conversion on low density diets even when feed quality is variable. The broiler's robust immune system provides resistance to heat and cold stress, reducing susceptibility to respiratory problems.

The selection methods and technology which Cobb has developed over the past 25 years are accelerating Cobb Avian breed improvements. Since 1989, for instance, Cobb geneticists have been using oximeters to measure blood oxygen saturation to assess the physiological health of individual birds and pedigree lines. Ultra-sound and other body imaging technologies have been developed to study bone and muscle development.

Now genetic markers and DNA profiling are being used to verify the presence of individual genes, providing a new level of precision in selection and advancing the pace of progress. Above all, the emphasis is placed on selecting birds from families that exhibit outstanding health traits - excellent livability, strong legs and skeletal frame, resistance to ascites, high overall immune response and good feather cover.

**Cobb Avian 48 Broiler Performance**

Age	Weight (lb)	Weight (kg)	Average Daily Weight Gain	FCR	Livability
34.0	3.14	1.42	41.9	1.65	99.00
39.0	4.35	1.97	50.5	1.80	97.69
40.4	4.88	2.22	54.8	1.80	96.31
41.0	4.71	2.14	52.1	1.92	95.55
41.7	5.04	2.29	54.8	1.81	96.36
41.8	4.97	2.25	53.9	1.85	95.90
42.3	4.82	2.19	51.7	1.88	96.75
43.2	5.20	2.36	54.6	1.94	96.98
45.0	5.16	2.34	52.0	1.88	96.93
46.1	5.46	2.47	53.7	2.07	96.85

These figures show examples of how the Cobb Avian 48 broiler will perform, achieving target liveweights at a lower cost than its competitors and with particularly impressive livability.

Data based on average performance numbers from over 5 million broilers.



## Principles of an economic model

The best method to determine the effects of each discipline on overall profitability of a business is to employ a simple economic model.

This is designed to make cost calculations based on the production variables as they are changed. One advantage of using an economic model is that it highlights the relative effect of different performance traits and cost factors.

# Cobb Avian 48 Line

Number of broilers processed per week	1,000,000	1,000,000
	Cobb Avian 48	Competitor
<b>Breeder</b>		
Chicks per breeder to 65 weeks of age	148.0	145.0
<b>Broiler growing</b>		
Broiler Weight lb (kg)	4.90 (2.223)	4.76 (2.161)
Average feed price per US ton	\$185.00	\$185.00
Feed conversion	1.862	1.924
Cost per chick	\$0.17	\$0.17
Cost per lb liveweight	\$0.21	\$0.22
Cost per kg liveweight	\$0.46	\$0.48
<b>Processing</b>		
Eviscerated carcass yield	71.60	71.30
Breast meat yield (% liveweight)	21.70	21.30
<b>To process 1,000,000 Broilers per week</b>		
Annual Breeder production costs	\$9,136,563	\$9,405,434
Broiler growing costs	\$53,652,950	\$54,032,711
Processing plant costs	\$16,640,000	\$16,640,000
Total income	\$106,526,569	\$102,893,871
Annual profit	<b>\$27,097,056</b>	<b>\$22,815,726</b>

- The table above is based on industry data and is an illustrative example.  
- The currency in the above table is in US Dollars.

By using Cobb's economic model, this example shows the dynamics of breeder and broiler performance as well as the importance of meat yield.

As the model indicates, the Cobb Avian 48's all-round qualities provide an attractive option for companies seeking to maximize returns at both breeder and broiler levels.

## Helping customers take full advantage of the Cobb Avian 48

Cobb's philosophy is not only to provide top quality broiler breeding stock, but to enable customers to maximize their investment by managing their poultry assets.

The Cobb World Technical Support Team was developed in 1998, bringing together leading experts in each aspect of chicken production. The team now covers animal health, nutrition, environment, breeder, broiler and hatchery production, processing and data analysis. Working alongside Cobb's regional technical service teams, they provide support and assistance for Cobb customers worldwide.



The data in this publication are based on actual field performance and trial information.

We're



Cobb-Vantress, Inc

Tel: +1 479 524 3166

Email: [info@cobb-vantress.com](mailto:info@cobb-vantress.com)

Cobb Europe

Tel: +44 1206 835835

Email: [info@cobb-europe.com](mailto:info@cobb-europe.com)

Cobb-Vantress Brasil, Ltda

Tel: +55 17 3216 9700

Email: [cobb.info@cobb-vantress.com.br](mailto:cobb.info@cobb-vantress.com.br)

[www.cobb-vantress.com](http://www.cobb-vantress.com)