



Praveen K Sharma

Hatchery Manager

Use of Organic Trace Minerals and its effect on Hatchability and Chick Quality

- Parameters;
 - Hen Housed Hatchable Eggs
 - Hatchability
 - Hatchability with egg storage
 - Change in Ph/TDS with egg age
 - Chick growth



Tom Barron from the start

- Tom Barron 1872-1955
 - » 1893 Founded Tom Barron Hatcheries
 - » 1919 President of Lancashire Utility Poultry Society
 - » President of the National Poultry Council
 - » 1930 World Record 262 eggs/bird with his Wyandottes
 - » 1962 Fowl Pest wiped out Pedigree Stock
 - » 1963 Franchise with Babcock B300
 - » 1964 Warren-Studler for North England
 - » 2004 joint venture with ISA to form TB ISA Ltd
 - » 2011 deal with Novogen to supply Novogen Brown and Novogen white for UK and Ireland



Companies and Activities

- Tom Barron Farms
- Clifton Dairies
- Fayre Game
- Tom Barron Ltd
- Tom Barren Independent Hatcheries Ltd



**Tom Barron Winner
1915-16
White Leghorn x6
Most uniform pen
Northern Utility Poultry Society
Laying Competition**

Oldest Poultry Breeding Co.



Tom Barron Trophies 1913 -1914

Individually Bred Cockerels and Pullets.

THESE can be booked or ordered from hens which are bred from individually at the prices denoted by—(a) £8 8s. (b)—£7 7s. ... (c)—£6 6s. ... (d)—£5 5s. ... (e)—£4 4s. All are subject to the successful hatching and rearing results of each hen. Appreciable discounts are allowed on Cockerels and Pullets up to 5 months old. For particulars of discounts and prices of pen bred birds please refer to Price List enclosed herewith.

The Registered Numbers (Reg. No.) of birds denoted in this Catalogue refer to birds which have gained Copper Rings in the National Poultry Council's Recognised Laying Tests. In order to gain these Rings the birds have to lay at least 200 first-grade eggs during the 48 weeks of the Trials.

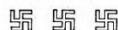
WHITE LEGHORNS.

NOTE.—Figures in parentheses denote Number of Pen which the birds occupy on Farm. Eggs will bear this Number.



OF this breed I have some of the world's best—fine shaped, good coloured fowls. They are rather larger than the American Leghorn, but not so large as the English Exhibition bird. Like all my birds, they are bred specially to lay and to breed layers. As layers of many and large eggs they take a lot of beating, particularly as winter and summer producers combined.

Being non-sitters, they are a special summer favourite, but they have made a name for themselves in the great laying competitions in England and abroad as winter layers.



EXTRA SPECIAL PEN (28).—Contains ten Registered Copper Ring hens, all tested breeders of high record and large egg progeny. They are all layers of good sized eggs.

Hen No.	Reg. No.	Record.	Hen No.	Reg. No.	Record.
(c)5	F2 /29	275	1571	D180 /29	264(e)
(e)24	D285 /30	257	1572	D1 /29	216(e)
(e)SP21	D74 /29	240	1572	D224 /30	290(a)
(d)SP23	D166 /28	245	1578	D3 /29	259(d)
(e)1561	D648 /27	217	1578	D475 /28	225(d)

Mated to one of my very best 1931 cockerels. Dam's record 257 all first-grade in 48 weeks. Sire's dam 249, all first-grade in 48 weeks × 262 in 48 weeks.

Eggs - £3 3s. per 15.

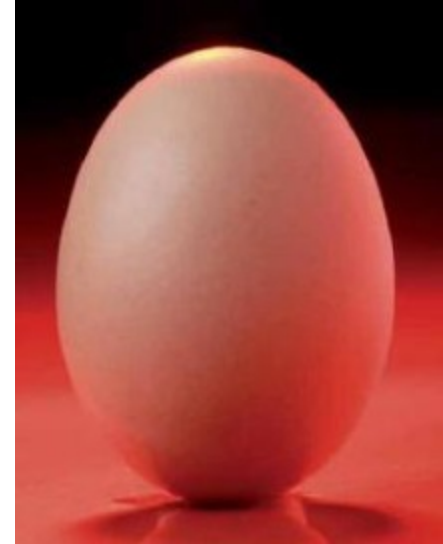
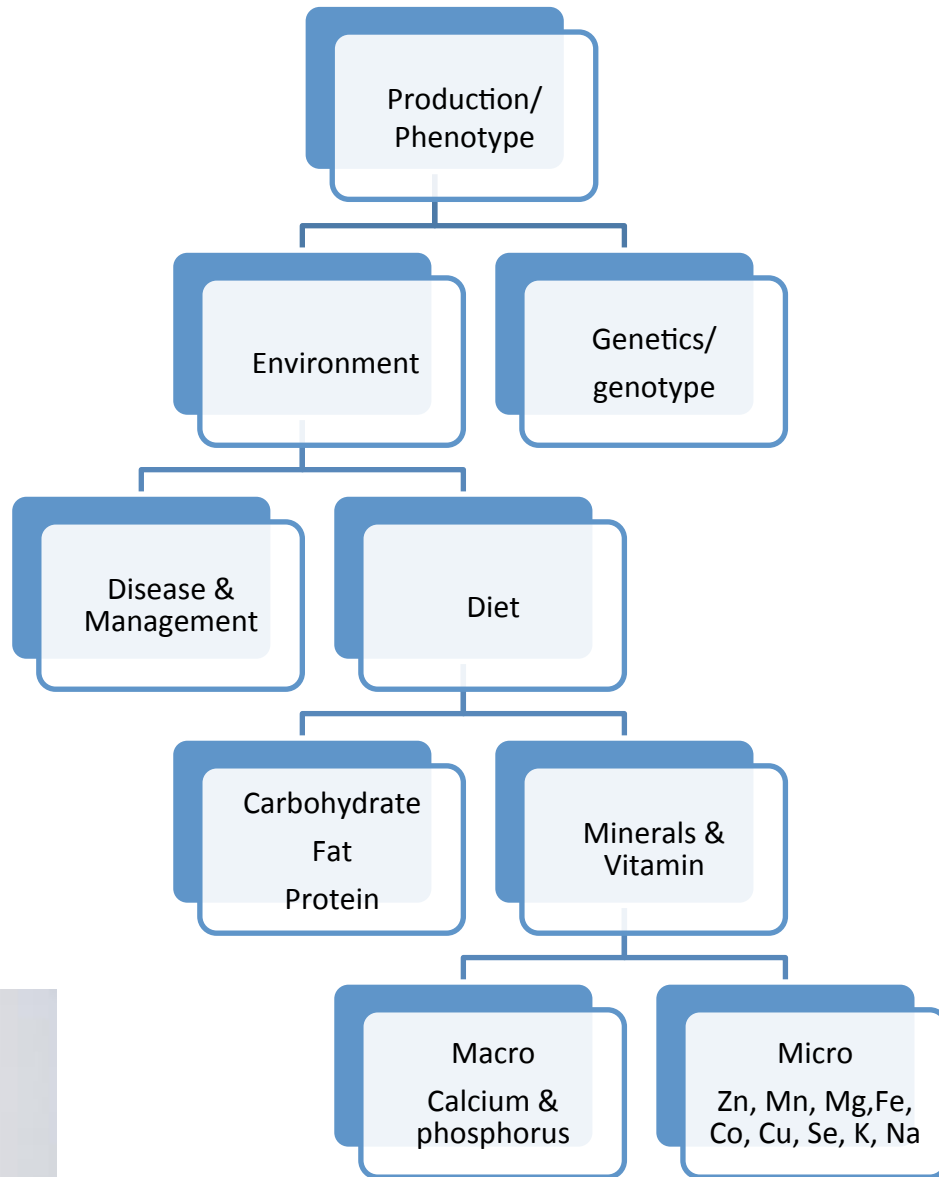
Chicks - £5 5s. per dozen.

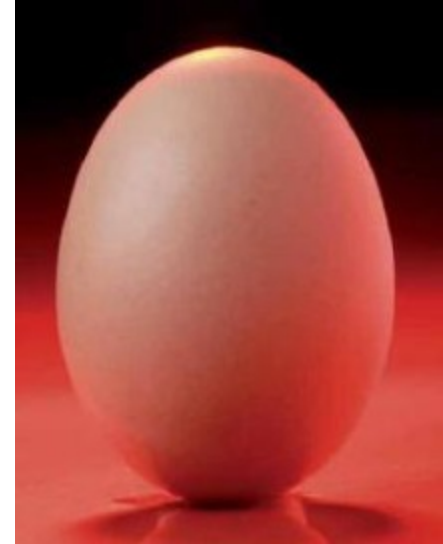
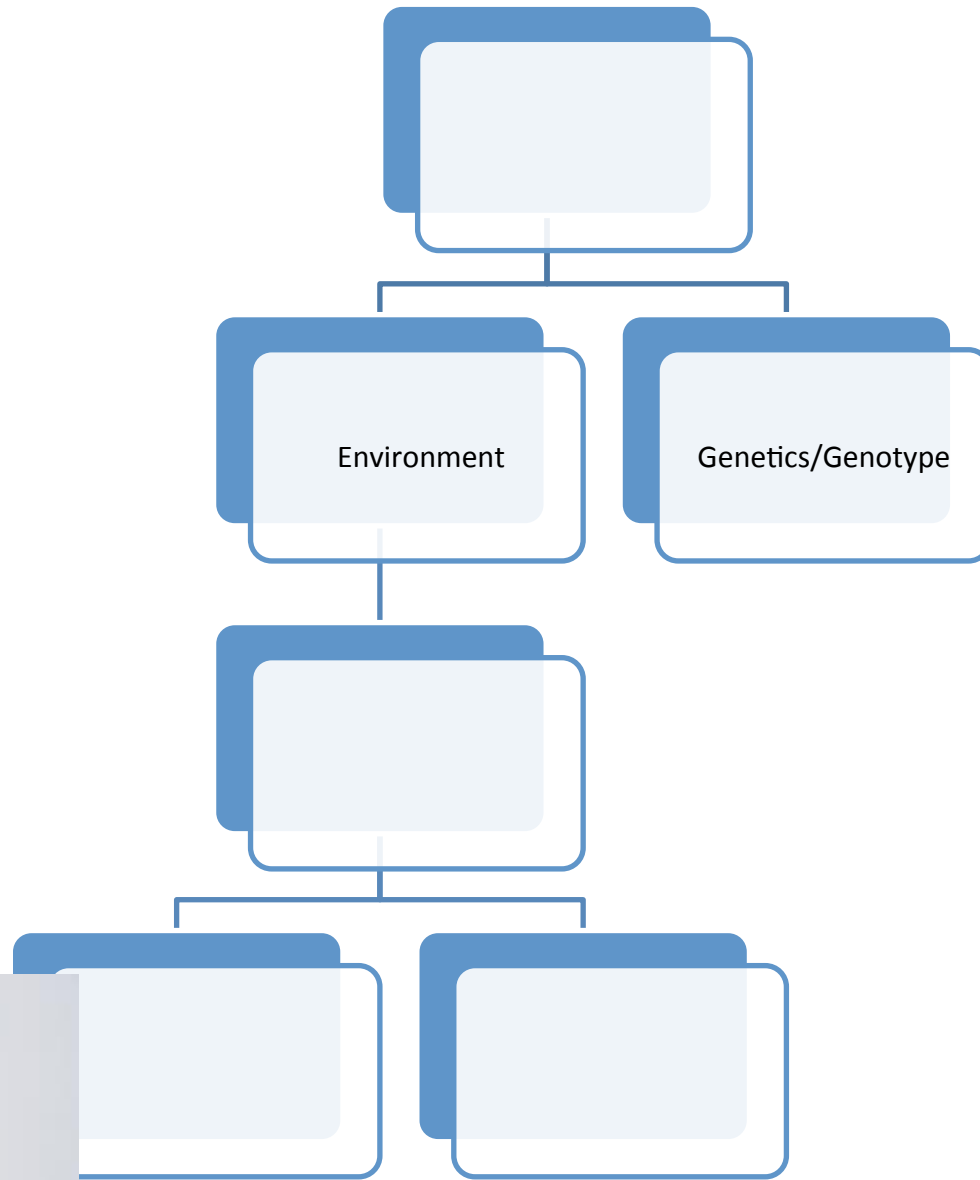
THE BEST BY TEST.

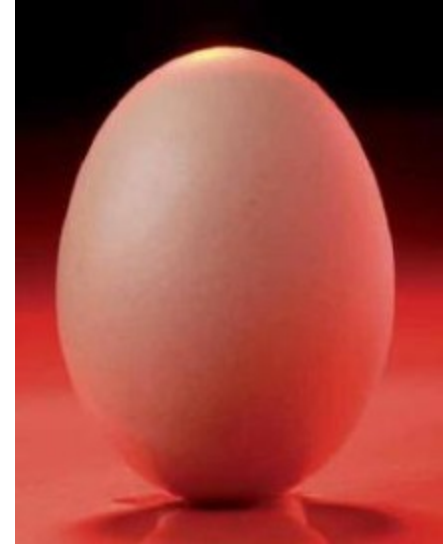
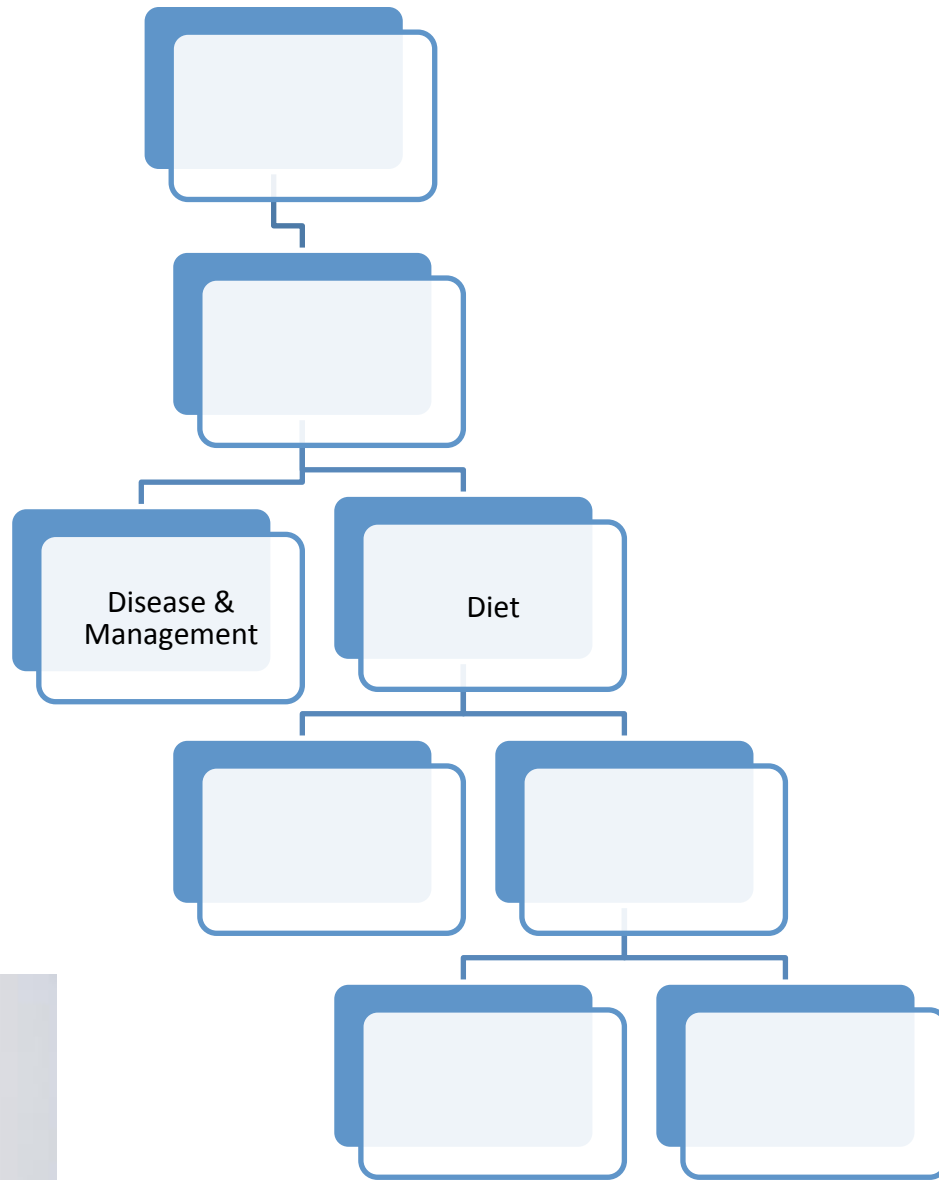
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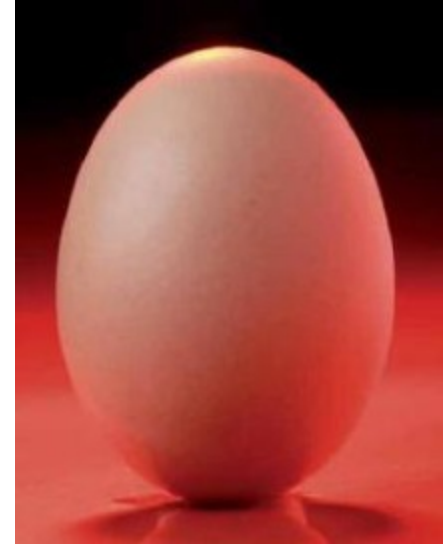
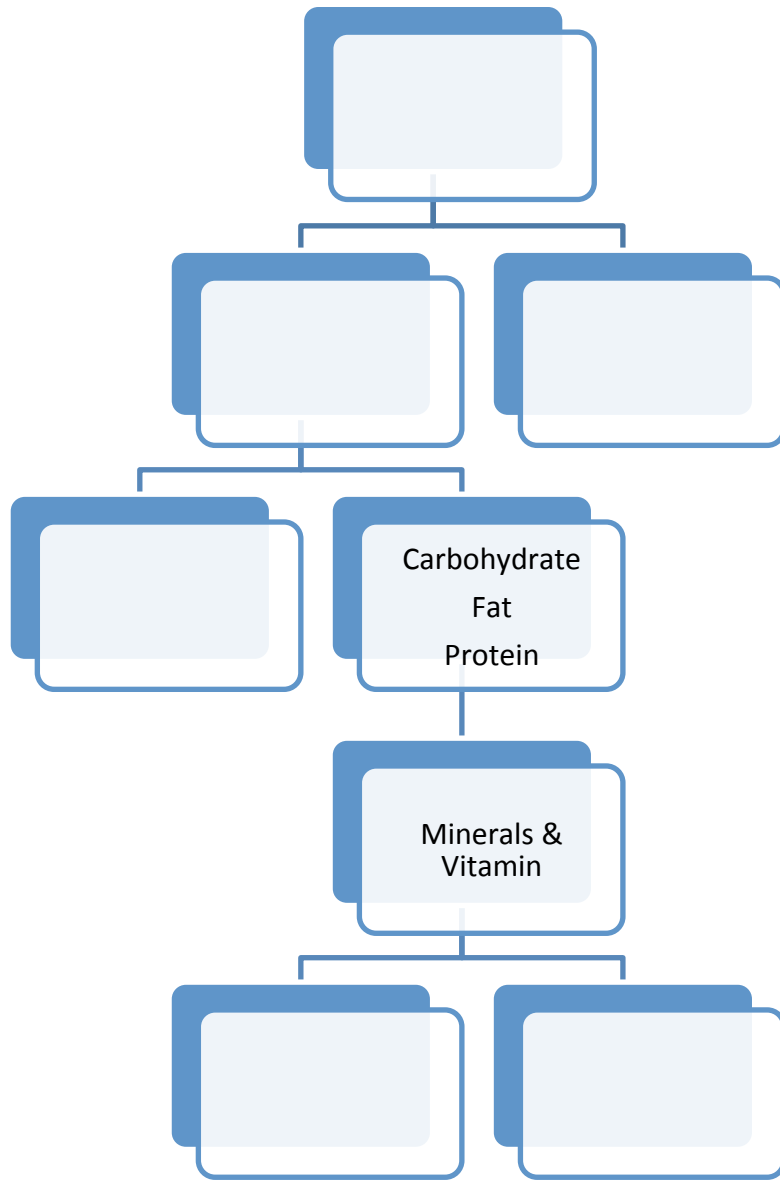
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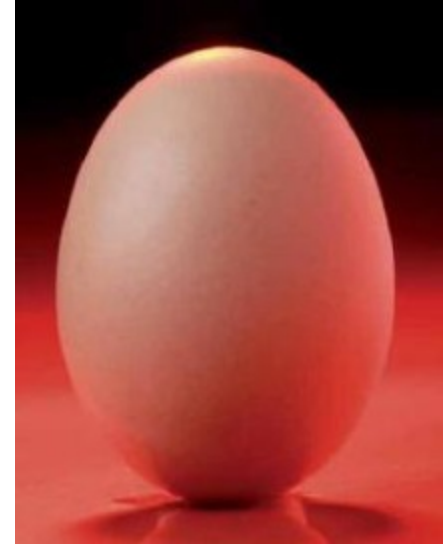
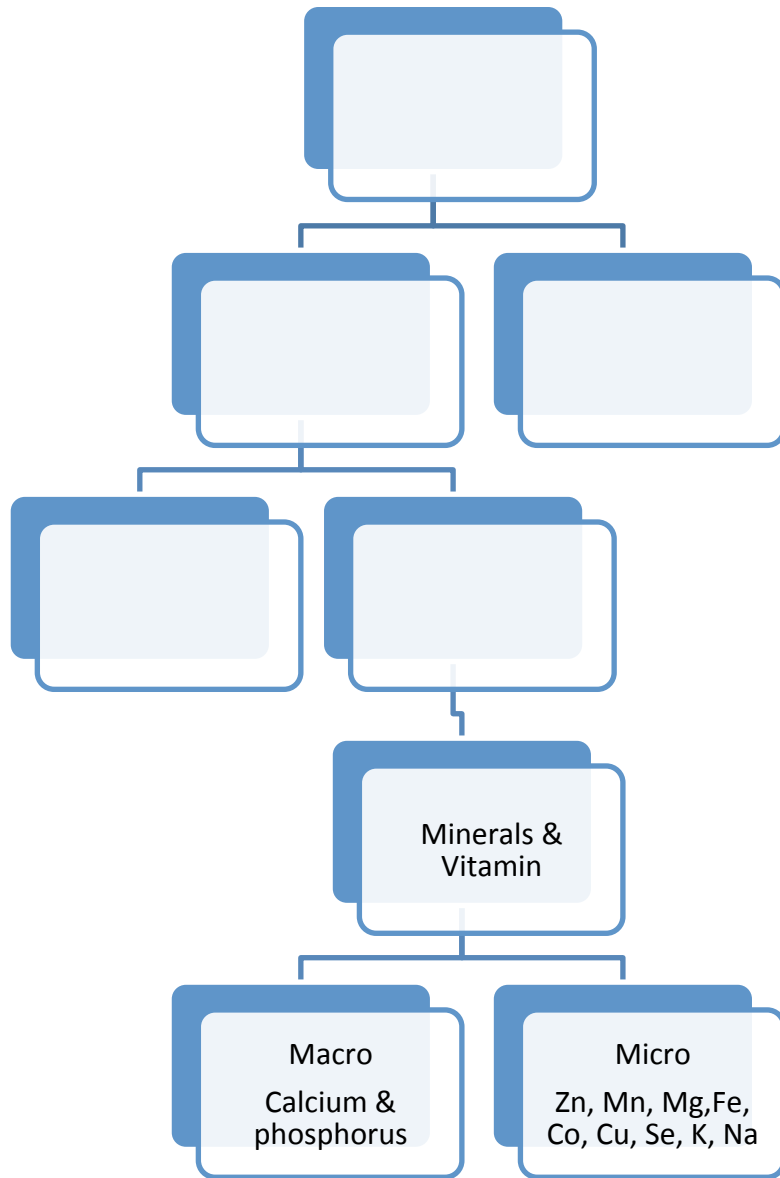












Organic Mineral

- The term organic mineral refer to a compound having a carbon atom such as metal-aminoacid complex,metal amino chelates,metal proteinates,metal-polysaccharides,metal-yeast or metal-organic acid complex.
- Organic minerals are of 2 types,natural & synthetic.Natural mineral complexes are formed in our body during digestion,absorption & metabolism.While synthetic are compounds made to enhance absorption.
- Better absorption results in lesser levels in litter and is encouraged in many parts of the world



- The mineral requiring special attention are Zn,Cu,Mn, →
Co,Se,Mg and Fe and share important function like egg shell quality,enhance immune responce,maintain bone,skin and gut integrity and antioxidant effect.
- Zinc (Zn) is a cofactor of enzyme Carbonic anhydrase which governs formation of egg shell and keratinase helps in formation of egg shell membrane. Zinc improves cellular & humoral immunity.
- Manganese (Mn) plays an important role in egg shell formation, cholesterol, fatty acid, collagen formation, bone growth, eg perosis.
- Copper (Cu) is a component of several enzyme that help egg formation. Fertility and hatchability. Including ferroxidase which helps in absorption of Iron anemia.



Trial Protocols

Trial Flock Size: 15000 Females with 10% Males

Control Flock: Previous Flocks Results as well as the flocks of the similar ages from other sites

Proposed Mintrex Levels(Zn:Cu:Mn): 50:10:65

Duration of Trial: 54 Weeks



Trial Protocols

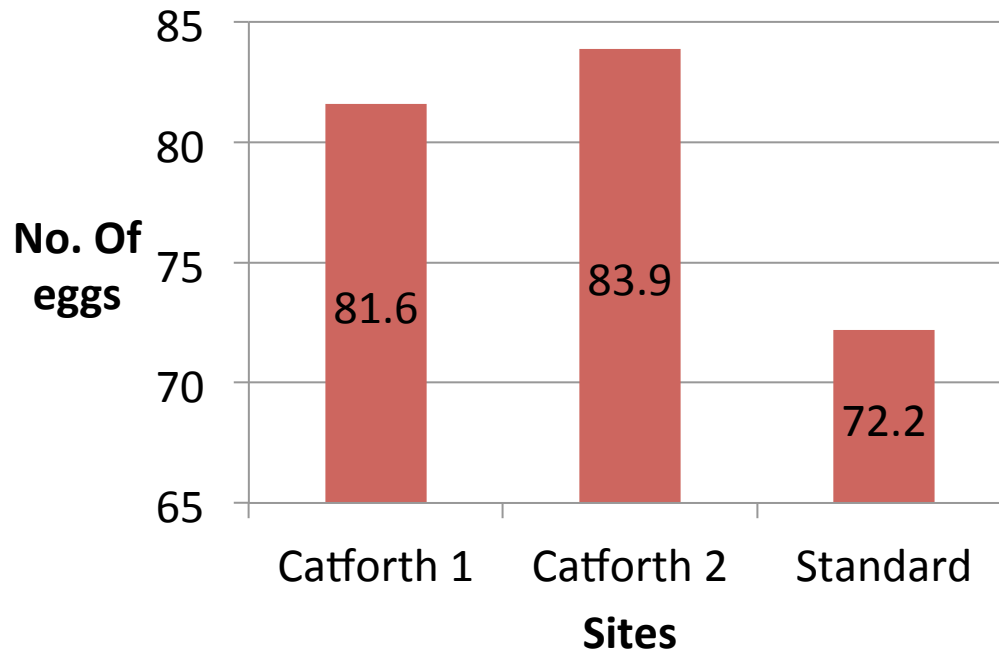
Trial Hatching Eggs Monitored: 40000

Random Break Out strategy.

TDS & ph Evaluation.



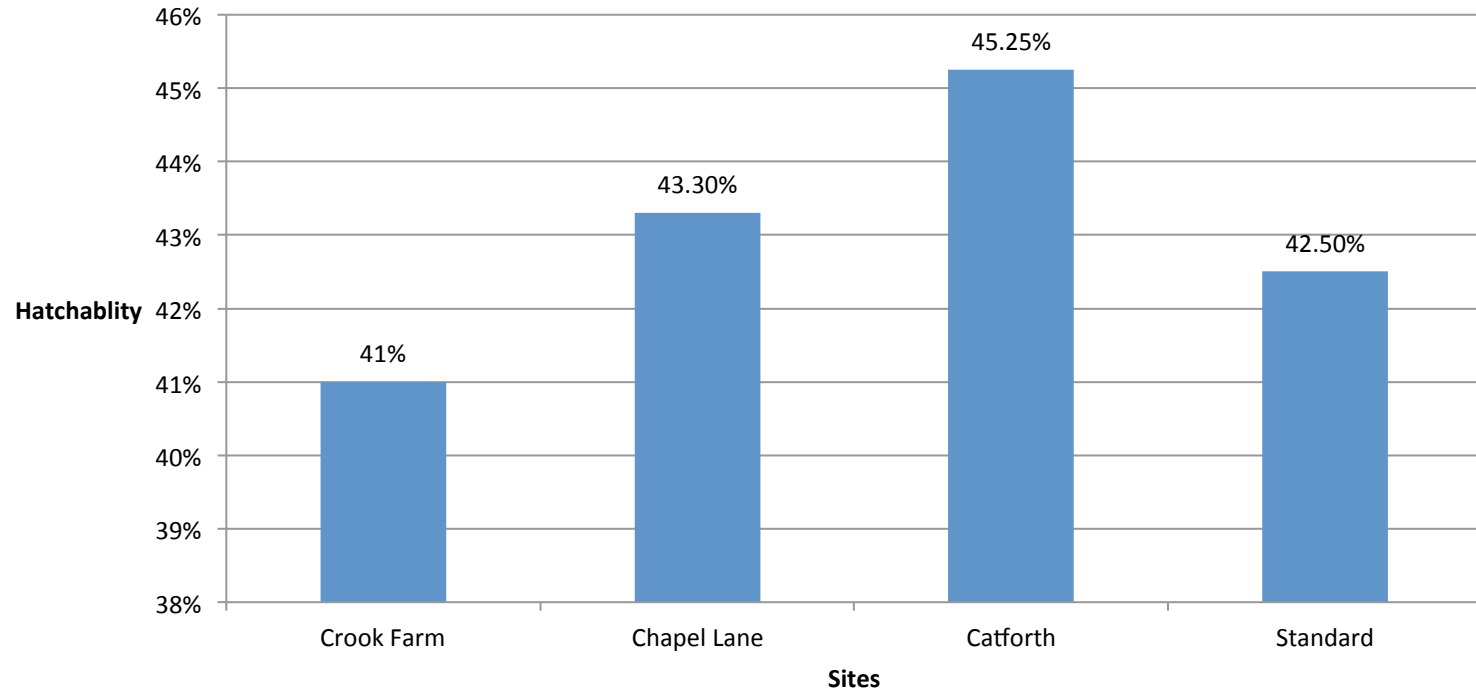
Hatchable Egg (up to 36 weeks)



Catforth 1 produced 108 chick/ Breeder upto 72 weeks



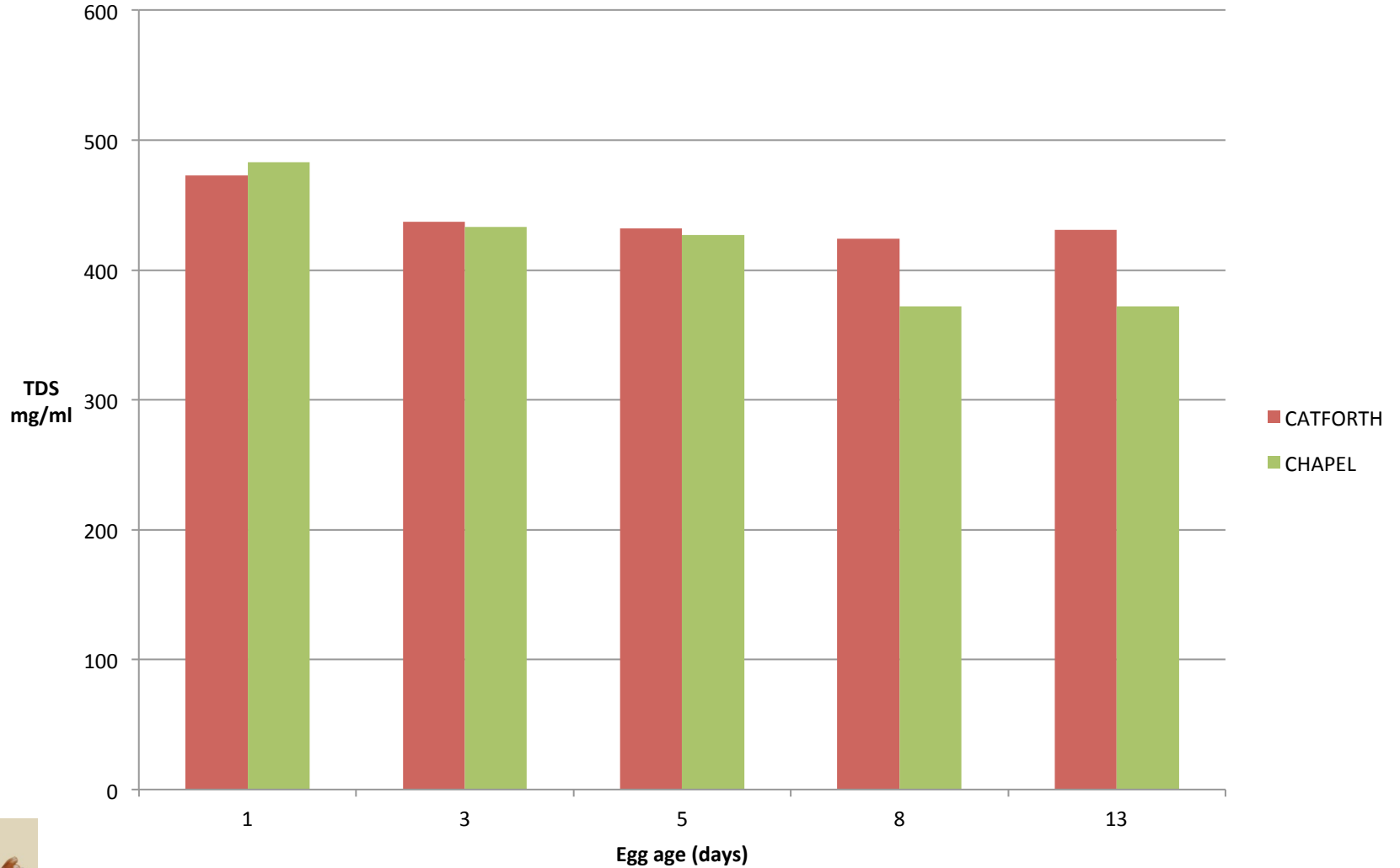
Hatch Percentage - Female (Fresh eggs)



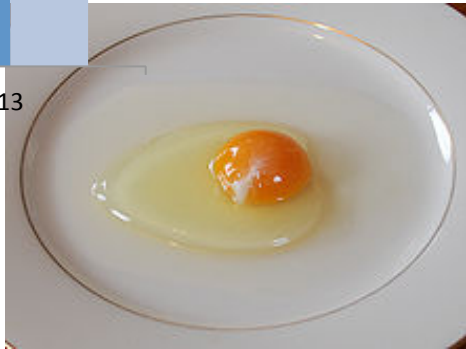
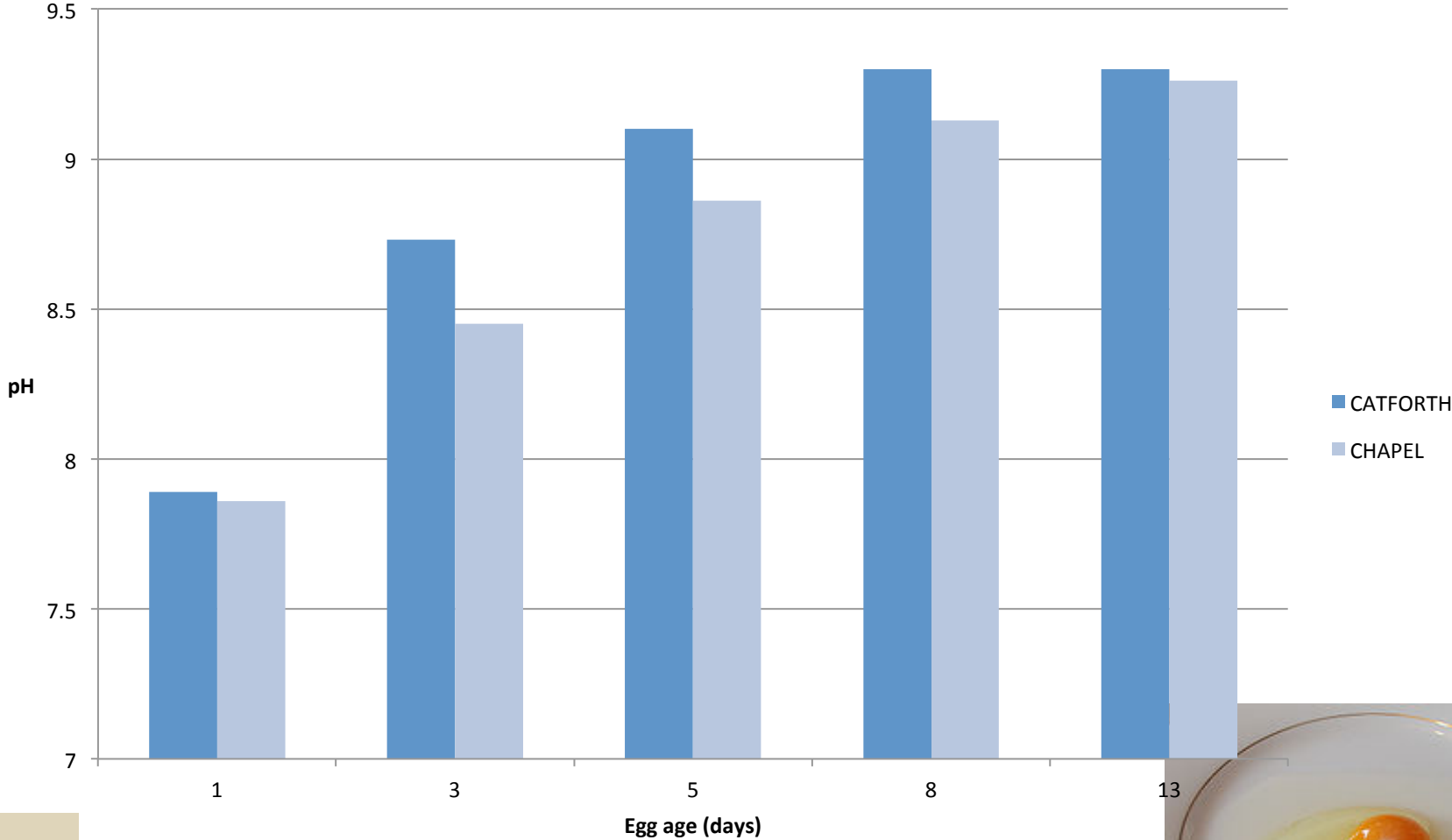
The thick albumen density results from the level of electrostatic links between ovomucin and lysozyme. The di valent cation of albumen are binding factors.



TDS Levels with egg age



Albumin pH with egg age





Hatchability for Catforth Hall

	Fresh Eggs	14 days egg age	Decreased by	Decreased per day
Total Hatch	87%	82.25%	4.75%	0.34%
Female	45.25%	41.70%	3.55%	0.25%
Male	41.70%	40.55%	1.15%	0.09%

Hatchability for Crook Farm (Control)

	Fresh Eggs	14 days egg age	Decreased by	Decreased per day
Total Hatch	82%	75%	7%	0.50%
Female	40%	36%	4%	0.29%
Male	42%	39%	3%	0.21%

Body Weight (BW)

- Generally 10% below STD/ First few wks

Days	Recorded (g)	Target (g)
13	112	109
20	179	183



THANK YOU NOTE

- BOCM for co-ordination, good feed throughout the trial.
- Staff of the hatchery-Mic,Sutty,Lindsay,Linda and Phillip.
- Pamela Rimmer- Breeder Manager
- Anita Sharma – Technical Manager
- Dr Joe & Kevin (Novus)

Neil Leeming – Managing Director



Final results to 70 weeks

Total No of eggs – 275(284.1)

Total no.of H.Eggs—251(247.5)

Avg Hatch----- 38.97%

Act.Chicks/PARENT---97.81(94)

Corrected Hat%--41.97%-14days eggage

Corrected chicks/parent----- 105.34(94)

