

**Nuffield Farming Scholarship Trust**

Developing and Marketing the Free Range  
Egg Sector within the UK and Europe



The Bob Matson Award (Young Nuffield)

Christine Jackson

2008

## **Contents Page**

### 1.0 Executive Summary

### 2.0 Background

#### 2.1 Why I chose to do a Nuffield Scholarship

#### 2.2 Chosen Topic

### 3.0 Chosen Countries

#### 3.1 Hungary

#### 3.2 Germany

#### 3.3 United States of America

#### 3.4 Australia

### 4.0 Production

#### 4.1 Current and past market segmentation

#### 4.2 Production Systems

#### 4.3 Range requirements

### 5.0 Marketing

#### 5.1 Current egg market make-up

#### 5.2 Target Markets

#### 5.3 Nutrition

#### 5.4 Shelf Placement

#### 5.5 Branding

### 6.0 Egg Processing

#### 6.1 Where does the free range egg fit in?

### 7.0 Recommendations & Conclusion

#### 7.1 Production

#### 7.2 Marketing

#### 7.3 Egg Processing

#### 7.4 Conclusion.

### 8.0 Acknowledgments

## 1.0 **Executive Summary**

My report outlines the future of free range egg production within the UK and Europe and I have considered three main areas for the progression of the industry which are production methods, marketing opportunities and the egg processing sector.

My recommendation for production methods is the use of multi tier systems and the continued research into better bird environments.

I recommend the UK should look more closely at the marketing strategies which have been so successful in Australia and the United States of America. There are many opportunities in the UK that have yet to be exploited as a result we are seeing no increase in overall egg consumption.

Finally the egg processing sector is market in the UK that has almost been forgotten but offers great opportunities to increase egg consumption and raise the profile of eggs to our consumers.

## 2.0 Background

In the year of 2006 it was suggested that I should apply for a Nuffield scholarship by John Campbell, I wasn't 100 percent sure what this entailed and initially my thoughts were: where have I got the time to do such a thing?; I am so young, maybe in a few years I could consider it. As the months passed and the application deadline approached I decided to apply. It was one of the best things I could have done.

I was 23 years old on receiving my Nuffield Scholarship and not long out of college where I gained a degree in Rural Business Studies with Food at the Scottish Agricultural College. I was unsure exactly what direction I should take, jobs were scarce in the industry for graduates; should I stay in an industry which was struggling? Also at this point as a family we decided to diversify our farm. Sunny Hill Free Range Eggs was set up in 2005 and this challenge I have embarked on with my family. Poultry was completely new to us and at the same time a massive challenge to me personally in an industry I knew very little about. This is one of the reasons why gaining my Nuffield has turned into a great asset to me, it has enabled me to learn a huge amount about an industry of which I had little knowledge.

Sunny Hill Free Range Eggs was set up in response to changing agricultural fortunes and the desire to get closer to the UK consumer. Sunny Hill Eggs now consist of 57,000 free range hens, a retail round which includes smaller private retailers, hotels, restaurants, catering and the larger multiple retailers, creating a good regional branded egg. Since starting my Nuffield Farming Scholarship we have also taken over a similar company and now run two successful brands covering 2 regions in the UK. This ethos was a key message I learnt whilst on my travels, the success of many egg companies has been the amalgamation, and subsequent growth, of existing companies.

- 2.1 My Nuffield has been a great asset to me. I was a young person not long out of college with a lot of responsibilities, a bit inexperienced one may say. I knew little about the overall industry but was always interested to know more. What I have learned in 18 months could take someone a life time to learn and the experiences to enjoy; and for this I am truly grateful to everyone who has helped me complete this journey of mine. Not only have I learnt a great deal of information it has been a great character building experience and I now feel I have more confidence in myself to continue the work which I am doing.
- 2.2 I chose this particular topic to gain an understanding of the worldwide market. I wanted to know and understand the past egg industry and also to gain an understanding of where we as an industry might be heading towards. I thought this topic covered all the current issues within the market place at present.

### 3.0 Chosen Countries

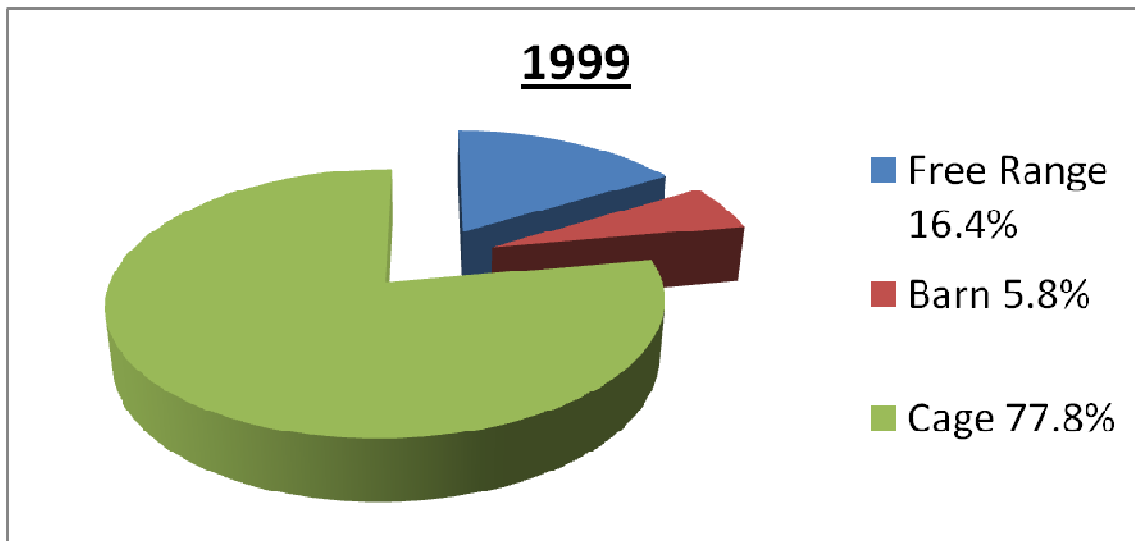
Over the past 18 months I have completed 3 months of travel to various countries around the world. Firstly we embarked as a group to Canada and Brussels to the EU parliament, both were beneficial to me as this prepared me for my own trips away and gave me an understanding of European and world agricultural issues on many different subjects. I then joined the Australian Nuffield group for their two week trip through China and Hong Kong; this was not related to my study but never the less I gained a great amount from it in many different ways including confidence and personal development. I also gained an understanding of an extremely powerful country and the consequences it could have on western agriculture and our economy in the future; it was a trip well worth embarking on.

- 3.1 My own study began in Budapest, Hungary where I went to the International Egg Conference. I worked alongside Julian Madley for the week. The reason for going to the conference was to gain an appreciation of the world egg industry and also to meet the world leaders; from there I made many of my contacts who helped me with the rest of my trip.
- 3.2 I organised a trip to Germany with help from Big Dutchman as I needed to study the European free range egg market which in my opinion is one of the EU countries which is more environmentally focused, rather than animal welfare focused, as we are in the UK. Germany was an obvious choice due to the free range market being strong and their proactive and forward thinking production systems.
- 3.3 In January 2008 I set off for a 2 month trip through the USA and Australia. I wanted to visit the USA to look at the marketing and egg processing side of the industry. The USA was a great experience as I received great help from some of their industry leaders and gained a firsthand insight into their market issues, animal welfare, egg processing, marketing and branding techniques. After spending 4 weeks in the USA I felt I learned a lot of information in such a small time span, which is proving useful to me on a daily basis.
- 3.4 I choose to go to Australia because I wanted to gain an appreciation of how the UK market had been in the past and even though their production systems were a few years behind the UK and Europe, they had been doing a big campaign to increase egg consumption and this seemed to be working as egg consumption had increased. This is unusual in a developed, wealthy country such as Australia as the trend is usually the opposite. The Australian free range egg market is also growing at a healthy pace.

I feel my country choices were beneficial for my study and I gained a great amount out of every country, whether it being personal development or a better understanding of the industry or forward thinking techniques. If I had more time I would have spent a little bit longer in Europe visiting other countries but Germany was a great compromise.

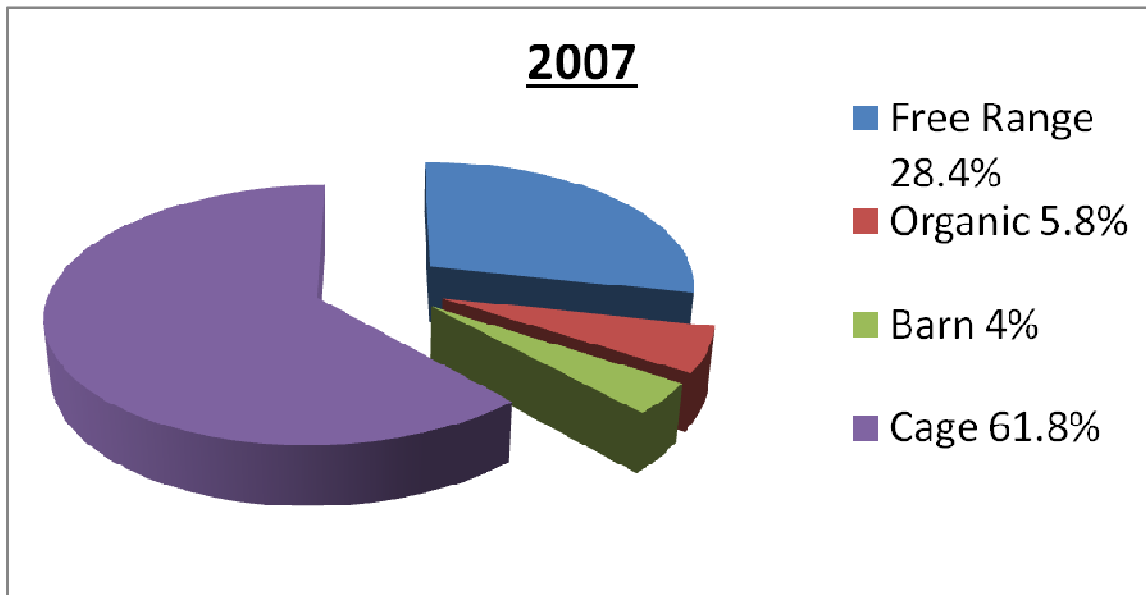
#### 4.0 Production

With the 2012 cage ban quickly looming on us, the UK and European egg industry is trying to adapt its production systems very quickly; there is a massive amount of work to be done. The expansion of free range is growing at about 2% year on year and with conventional cages being outlawed, the free range market is going to have to make it's self more efficient to be able to give the consumer an affordable egg.



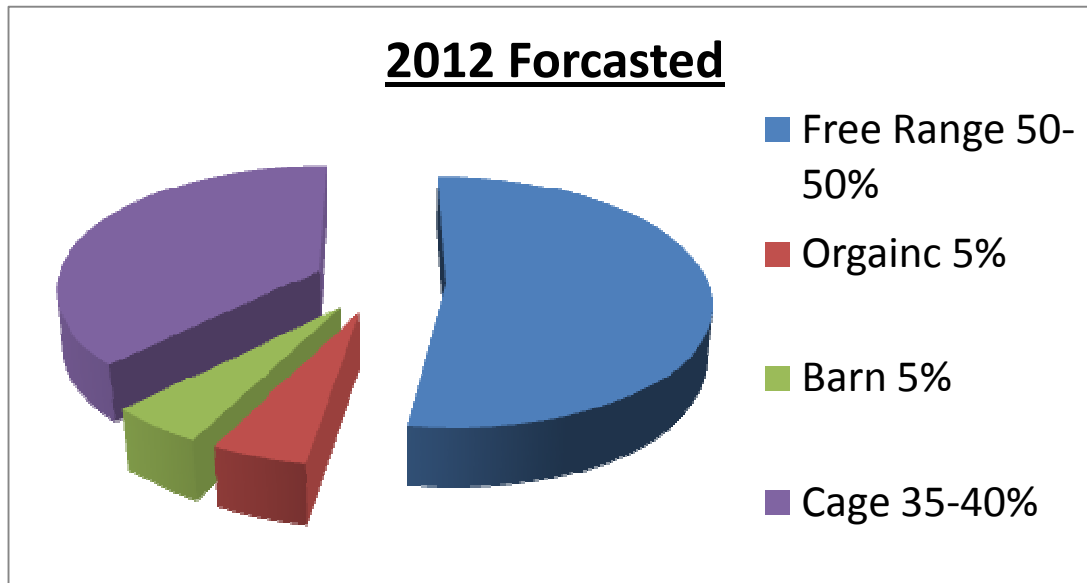
Source: - DEFRA UK Packing Station Throughput

4.1 In 1999 as we can see the biggest method of production was intensive cage production and free range along way behind it. Organic free range production was not even stated in these past figures.



Source: - DEFRA UK Packing Station Throughput

The market by 2007 has been changing over the past 7 years greatly, free range and organic production has both increased whilst cage has been on a decline, as we can see the consumer buying habits are changing increasingly quickly. Barn production has also decreased; I feel that this has been because the consumer cannot understand what a barn egg is.

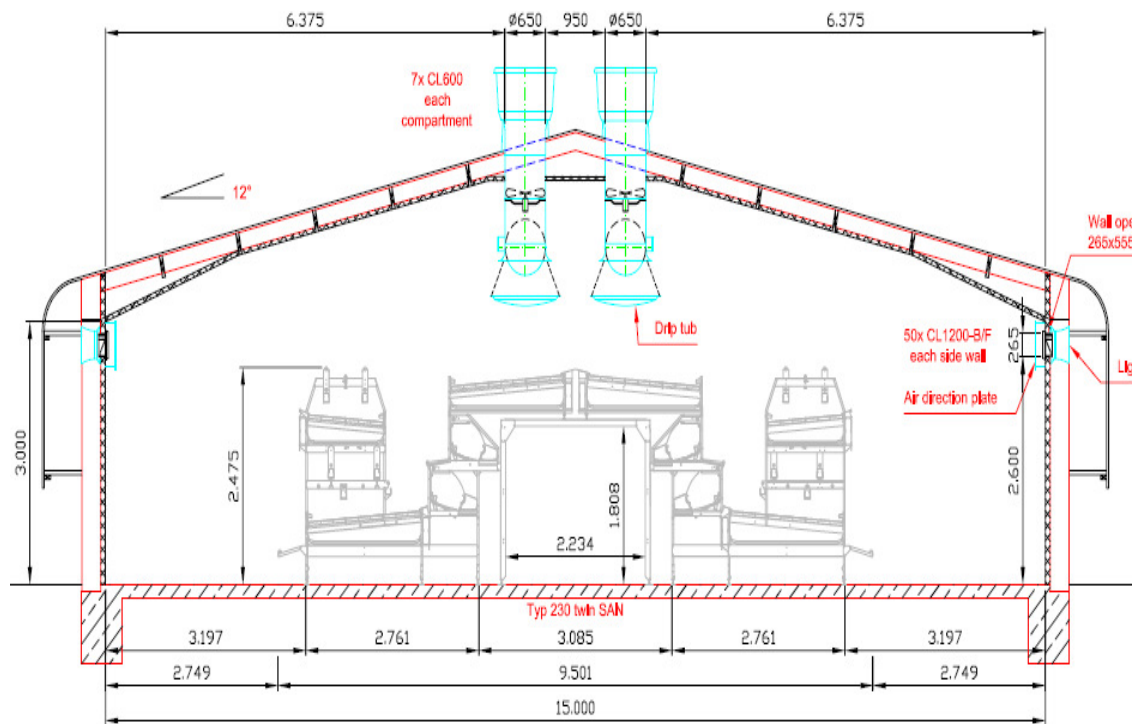


Source: - DEFRA UK Packing Station Throughput

As we can see on the 2012 predicted market for the future the market once again is still changing extremely quickly, is this due to consumer buying trends? or the 2012 cage ban which is approaching the industry extremely quickly. Since free range production will be the dominant leader do we as an industry not have to become more efficient at producing this product?

- 4.2 My recommendation for a better efficient free range production system is to use a multi-tiered system. The space for the system uses the airspace as well as the floor space, so stocking densities increase from 9 birds per sq/metre on a conventional system to 18 birds per square/metre in a multi-tiered system. An example of a multi tiered system below shows us how all of the airspace is used and none of the space is wasted, unlike in a traditional free range system.

#### Natura Nova Multi Tier Free Range Production System



Source: - Big Dutchman, Germany

The environment created for the birds allows them to express their natural behaviour and also encourages them to fly; hence the bird is more content. Mortality is lower due better bird behaviour so cannibalism is minimised within a flock. Feed consumption is also reduced as the bird has more to do and they are not eating out of boredom, only eating what they require. The systems are designed in a way which means there are a lower number of lost eggs e.g. eggs lost through the system into a muck pit, and so egg numbers are increased. If all these factors are done correctly it can add up to an approximate cost saving of 3 pence to produce a dozen eggs. This may not seem a lot but for example on a 16,000 bird house throughout one flock's life time it is on average a saving of £12,480.

Another benefit of this system is the manure disposal, the design has been taken from the cages and all manure is on muck belts, the manure has to be removed twice a week and there are many benefits to doing this. One such advantage is a reduced fly problem as the fly lave does not have enough time to develop and hatch in the muck, this effectively reduces stress on the birds and also reduces the cost of having to control such a problem. When the manure is removed regularly research has shown that carbon emissions are reduced by 1/3 and with this becoming a bigger problem to the agricultural industry it can only be a positive



development. The overall shed atmosphere is improved compared to other methods of free range egg production, creating a better environment for the birds and the producers.

Although I feel the positives outweigh the negatives there are a few issues with this type of production. The management of this system is by no means easy but if done correctly the owner will reap the benefits. The constant removal of muck is a tie to someone who maybe does not have the facilities to remove it easily, machinery and a market is required constantly. This leads me onto the benefits poultry manure has to offer the arable industry, at Sunny Hill Eggs we also farm 800 acres of arable crops and our research has shown that the poultry manure contributes in the region of £30 per tonne in fertiliser and this in turn equates to a saving of £180/ acre, instead of buying in artificial nitrogen, phosphate and potash. Research has also shown us that applying the organic matter back on to the land has great benefits in improving the soil structure.

Should the poultry industry as a whole take advantage of this by product considering these 3 nutrients have increased in price by over 300%?

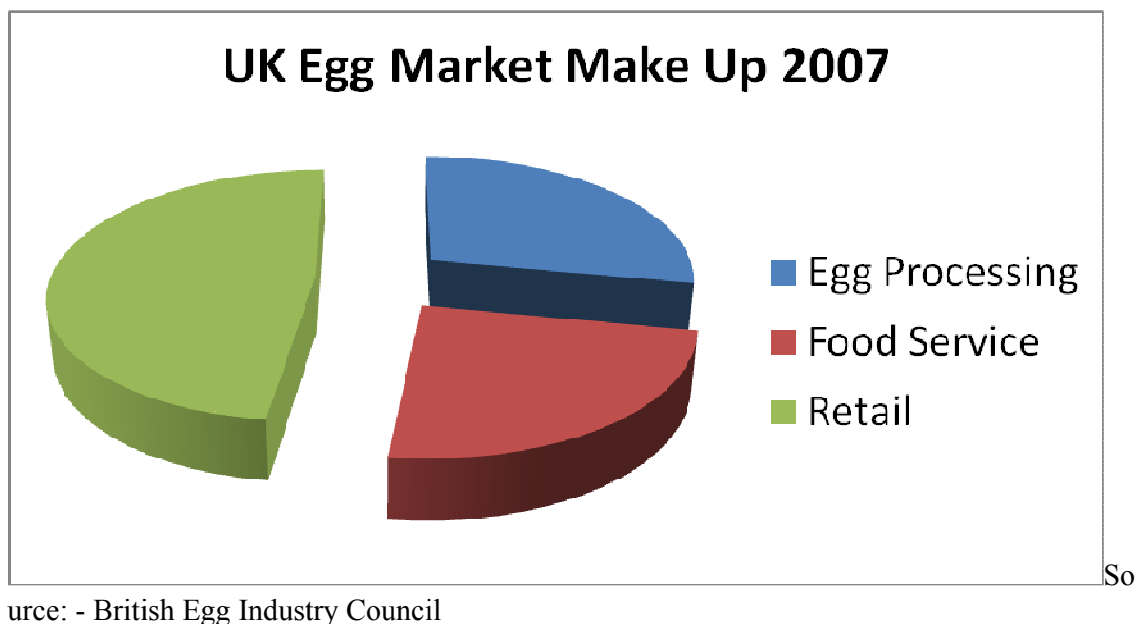
- 4.3 At this present time there is a debate on the range requirements required for free range egg production under the Freedom Foods legislation. Currently we require 1 hectare per 1000 birds. This is higher than the EU requirements at 2500 birds per hectare and higher again than all the non EU countries which I visited. In both the USA and Australia there is none or very little legislation on range requirements and if there is it is not enforced by any governing bodies. Are the Freedom Foods standards too high?

I believe they are, the birds struggle to range that far no matter how well a producer encourages them and also it is a major barrier for growth of the free range egg production due to the cost of land at present. Land values stand at £10,800 - £16800 per hectare on average depending on the land quality and type and there is no sign of it decreasing. So I see this as a big barrier to entry and also a barrier to compete against imported free range eggs. The free range egg industry needs to be Freedom Foods registered unless the multiples will not buy from us. Many of the RSPCA rules and regulations are beneficial to the industry and they are a unique selling point to those producers who do comply with them but I feel the range requirements should be decreased by at least half and hopefully this will help us become more competitive within the European market.

## 5.0 Marketing

In my opinion free range eggs without a doubt have become a commodity product, a product that used to be a niche product with high prices has now fallen into the trap of being a price taker and not a price maker. How does the free range egg industry differentiate itself from the rest? How do we increase egg consumption across the board and reverse the trend of decreasing consumption? Has the industry become too production focused? and let the multiples take control of our marketing for us; these are the questions I will be referring to throughout this section of my report.

- 5.1 The UK rapidly needs to develop an excellent, failsafe marketing programme. Do we know who our target markets are? can we target other markets. In the USA and Australia they have been targeting families as this is where they see the largest growth, this seems to be working for both countries, but why can the UK not target other market as well as the obvious ones?

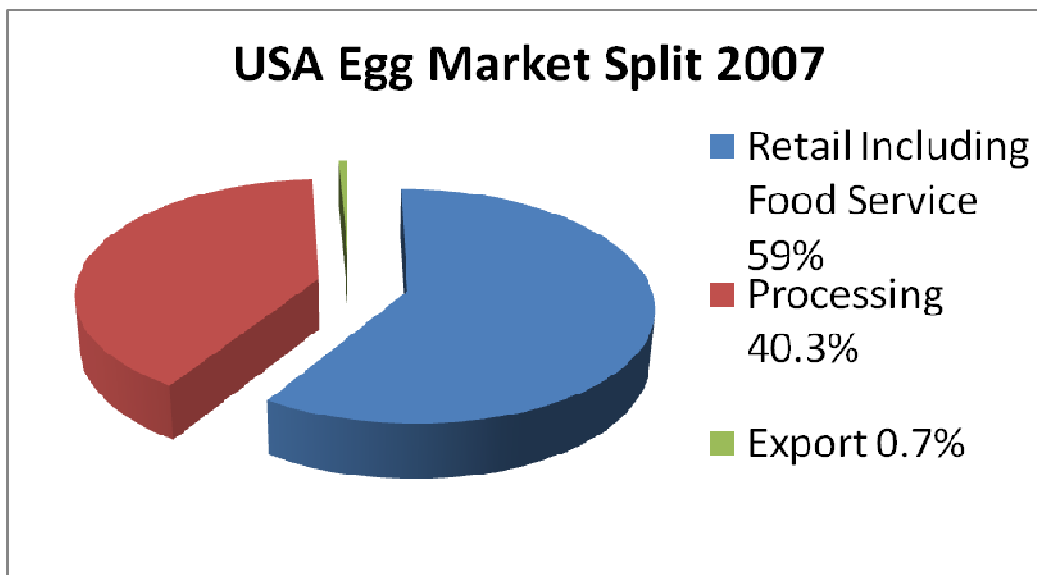


As we can see above the retail sector is the largest sector in the UK, with egg processing and food service being relatively equal, we need to grow our whole market rather than affect each sector- we need to grow the whole cake, i.e. increase egg consumption overall.

- 5.2 The younger population area an example of a new target market- they are health conscious and time poor, but do they know what to do with or how to cook an egg, should the UK bring eggs back to basics for the younger target market? Whilst continuing to focusing on the family market and pushing the benefits of eggs to them. I believe that the key to our marketing programme is the use of good, fun graphics reaching the consumer and not our customers. We have lost touch with the needs of our all important consumers by spending too much time keeping our customers happy. We need to reach out to and educate our consumers directly through different mediums and shout hard about the goodness that eggs offer to a balanced diet.

How do we reach our consumers? The obvious suggestion would be television, but in modern times it proves to be very expensive and not as effective as it use to be. In the USA the Egg Marketing Board have been experimenting with new ideas, such as the internet by creating good websites for the consumer to use, advertising on the internet along side other websites such as food websites, or using the internet in away that costs very little such as good blog videos. For example Howard Helmer, “the omelette man” is featured many times on blogs for the fantastic and amusing work he does for the industry, we should be utilising this excellent medium better than we are currently. The USA Egg Marketing Board are also heavily targeting the catering industry, providing them with research on eggs, recipe ideas and working alongside large fast food chains developing new dishes. Why not use the ultimate fast food more often in fast food restaurants than currently being used? The USA egg consumption is at present 256 eggs per person per capita compared to the UK egg consumption which is at present 173 eggs per person per capita.

The USA egg market is primarily split into two sections as shown below with the overall production being 211.1 million cases produced in 2007.



Source: - American Egg Board

In Australia they have also been experimenting with different ways to connect with the consumer such as the internet, and working closely with the health authority and making leaflets on eggs available in surgeries. The Australian Egg Commission has also been advertising in woman’s weekly’s magazines and has seen great results in this area. These are but a few lower cost ideas which seem to be working around the world effectively.

Does the industry need to invest more funds to be able to do this? In my opinion yes we do; rather than take small steps and small investment we should invest now to see a big impact, we have the production structure to do it so lets shout about our product and the benefits which the consumer can gain from eating eggs, as Rene Boender said at the International Egg Conference in 2007 “from good to great to cool, use nutrition more!”

5.3 This leads me onto nutrition. There has been some fantastic research done on egg nutrition at the Egg Nutrition Centre in the USA, there has been some very positive research done for the industry that can only do it a lot of good as long as we shout about it from the roof tops. Research has shown that the myth about high cholesterol in eggs is untrue, granted there is cholesterol in eggs but not the cholesterol which is bad for heart disease. The cholesterol in eggs is actually good for you.

Eggs also contain a nutrient called satiety, this helps you feel fuller for longer and this is the egg industries key to help fight the western world's problem with obesity- one in five of the UK's population is now classed as obese. Research has shown that someone on a calorie restricted diet eating two eggs per day can not only loose weight but also reduce cholesterol levels. The egg industry should work with the health authorities to promote the benefits of eggs to those people who suffer from obesity, we should also be working closely with dieting companies such as Weight Watchers so they can also go on and spread the word about the positive effects of eating eggs whilst on a diet.

The Egg Nutrition Centre have been focusing their research on satiety and protein, the protein which we get from an egg is very beneficial especially for the elderly as it helps retain muscle tissue which slows down the process of immobility, so consequently you get a healthier person all round. This type of protein can only be acquired from animals, either from meat or eggs, but the problem with meat is it is expensive and the elderly struggle to chew meat so consequently eggs are a better, cheaper alternative.

Eggs also have a high colleen level this is an essential nutrient especially in pregnant woman as it helps develop the memory of an unborn child, it is also good for the memory of grown humans. Colleen is something that is not recognised by many people in the UK but in the USA there is a recommended daily level which you should be consuming, so it is an important nutrient.

Whilst spending time with Don McNamara at the Egg Nutrition Centre he had strong opinions on what the egg industry could do to develop its market, they were creating eggs for certain categories of people. This is best done in a liquid format such as:-

1. Eggs for pregnant women, this would consist of extra colleen added to the egg mixture and extra vitamins to help the development of the unborn child.
2. Eggs for athletes, which would have extra vitamins added to it.
3. Eggs for the elderly, where you would increase the colleen and vitamins.

This could be a market which is currently untapped in the UK and further afield. In that it not only has health benefits but if marketed well could be a great success.

- 5.4 Shelf placement of eggs is also another factor which should be looked at. We generally put milk, bread and eggs into one category- your staple products. Milk and bread are generally closely situated together in a supermarket, if we placed eggs along side these products would it not increase sales. At present eggs are placed along side dry cooking goods such as flour but this is an aisle very rarely visited in the UK as the majority of the UK are time poor and there is a reduction in home baking and since an egg is the ultimate fresh, fast food product should it not be positioned in a more appropriate place. In the USA the eggs are placed alongside the milk, granted their eggs are chilled throughout their life time but the two just fit very well together. If the egg industry pushed the multiples to place eggs in more convenient shopping space I expect that egg consumption would increase. The UK egg industry has developed fantastic packaging -why should this not be exploited to the consumers?

The UK free range egg market has become too commoditised as James Kellaway from the Australian Egg Commission said “The egg category needs to differentiate or die!” How does the egg category do this? I suggest we try to brand our products; we should have the relationship with the consumers not our customers and if *our* consumers like *our* branded product we gain back some of the control from our customers.

- 5.5 How do we brand our eggs? In the UK we have seen a massive shift in consumer buying trends, buying local has become a hit, now the multiples have also started stocking locally produced produce and this goes in the format of a local branded egg. If the consumer only cares about the price should we not give them something else to care about? We can do this by giving them a good quality egg which they can identify time and time again, a story to whet their appetite giving them a feeling that they have actually just bought into a lifestyle and bought their eggs from down the road and not from a supermarket. In Australia Pace eggs are trying a new technique; they are producing their own branded eggs and yet also produce supermarket brands. The Australian Egg Commission did research with their consumers on what they consider to be a good egg? The majority result was yolk colour, this is something which we can control, so they have been reducing the yolk colour in the supermarket brands and increasing the yolk colour in their own brand so the consumer can identify the better eggs with the private brand. I think this idea is a great one and should work effectively.

Many of the UK population are cash rich and can afford to choose the food which they prefer, free range eggs make the consumer feel that they are making an ethical personal decision about animal welfare and helping a situation. Consumer research has shown that if a free range egg customer cannot purchase British free range eggs they will purchase foreign or barn eggs before they will down grade to a cage value egg. But how long will this last in the current credit crunch?

Branding does not only have to be local; in the USA they have a very successful branded egg called Egglands Best and they have seen a constant increase in sales since the brand was launched. I had time to learn a lot about the Egglands Best brand while staying with Fred Adams at Cal-Main foods. Egglands Best is an egg with higher animal welfare requirements to the USA government state requirements; the hen is also fed a better feed ration to produce the better egg. Eggland Best produced cage, barn and free range eggs. They sell their eggs at a premium to conventional eggs and they have seen sales increasing by doubling in sales each year. Egglands Best is a franchise and several companies across the USA bought the franchise to sell eggs in certain regions, the producer pays a percentage of the revenue brought in by the sales of Egglands Best eggs back to the franchiser. This money comes to \$20 million dollars for budgeting brand and product development, marketing of the brand and

promotional vouchers. The success of this concept shows in their sales figures, so branding can be done on a larger scale we just have to give the consumer something else to care about.



Whilst spending time in the USA many egg producers mentioned why can't we sell eggs to the pet industry? There are 135 million cats and dogs in the USA and when it comes to your beloved pet you do not begrudge spending money to keep your pet fit and healthy. Is this another avenue which the egg industry could research? The question to ask would this be best to retail as a shell egg or a processed egg.

## 6.0 Egg Processing

This is a large industry on average 1/3 of the eggs in the USA are broken and processed for egg products. These products range from liquid, frozen and dried egg for the catering industry. Ready made liquid egg for house holds which can be used for a variety of meals, this product comes in many different flavours and with added ingredients for example high in omega 3 or egg for diets. The USA market also produce ready cooked egg products such as omelettes. Whilst in the USA I spent time with Cargill Kitchen Solutions where I learnt a great deal about egg products and the variety of egg products available on the market. Cargill Kitchen Solutions produce over 100 different egg products for the USA market. The USA started the trend in ready made meals, fast food outlets and the egg industry has worked hard to create egg products for this market and they seem to be doing a very successful job.

In the UK we mainly produce pasteurised processed egg in three formats, liquid, dried and frozen. Is this a market that the egg industry is missing out on? Recently the UK's largest egg company has bought a factory where they can produce cooked egg products. I feared if the egg industry does not pick this market segment up the large multi national processing giants would.

- 6.1 Egg products are used from cage eggs to keep costs as low as possible. Where does a free range egg fit in? I think free range eggs could create a fresh, high end market for it's self such as fresh high quality custards, quiches, fresh hard boiled eggs, ready made scrambled egg and also fit into ready prepared meal solutions, products that are not a commodity and would be more appealing to the higher end more conscientious consumer.

Here is an example of egg products on the shelf in a USA supermarket.





## 7.0 Recommendations & Conclusion

### 7.1 Production

I feel that the UK is going to have to make the free range egg more affordable for our consumers. With the 2012 cage ban fast approaching the industry there is going to be a lack of value eggs available to the consumer for purchase I unsure the industry will be able to adapt its self quickly enough to supply demand and with the consumers changing habits reverting to higher animal welfare products such as free range eggs, there is pressure on the industry to make our eggs more affordable.

This could be done by using better efficient systems for example a multi tier production system. There are many advantages to this type of system compared to the traditional free range system. In a multi tier system egg numbers are increased, food consumption is decreased and bird mortality is also decreased these factors if done correctly add up to a saving of 3 pence per dozen.

The range requirements are also under discussion at present time, I feel that these requirements by the RSPCA should be decreased as the UK is has higher standards to the rest of Europe. How can the UK compete at a even level in the EU market place if our legislation is so far apart.

### 7.2 Marketing

I feel that the UK needs to develop a excellent marketing programme, we need to identify are target market and also target new markets. This should be done by using up to date mediums with exciting graphics. We need to shout about the positive health research on eggs that has been recently done in the USA, use these tools to help fight the world's health problems, for example the fight against obesity.

Shelf placement, this is not a new issue the UK market has been dealing with but I feel the industry needs to keep pushing this issue. I am convinced that if eggs where placed within the multiple retailers alongside everyday staples in a accessible area egg sales would increase.

Branding, whilst on my travels I saw some very successful national brands, I feel that this is something the UK needs explore. I feel that if we did this we would have better control over are product. The egg industry should connect with its consumer rather than our customer i.e. the multiple retailers.

### 7.3 Egg Processing

Egg products our huge market in the USA with on average of there overall egg production one third of there eggs are being processed. Should this not be a market the UK should be exploring and expanding the egg category, by expanding the ready made meals market whilst incorporating eggs, I believe that the free range egg fits in at the higher end of the market creating meal solutions for the consumer. I fear that if the UK egg industry does not pick this opportunity up the larger multi national food processing companies will, whilst driving prices down.



7.4 I feel that the free range egg industry has a positive outlook and I myself am very excited at what the industries future holds and also for our own company. I do believe that certain things need to be looked at and considered for the industry to be successful. We at Sunny Hill Eggs are working hard to supply our consumers and customers what they require, we are working extremely hard at getting consumer brand loyalty as we feel that if we do this we have more control over our own company's destiny. Even though I have not been involved in the egg industry very long I truly believe after 4 months of travel that we have a fantastic industry and one which the UK should be very proud off.

## 8.0 **Acknowledgments**