

# Global and European Turkey Production

Clay Burrows, Aviagen Turkeys Ltd ©

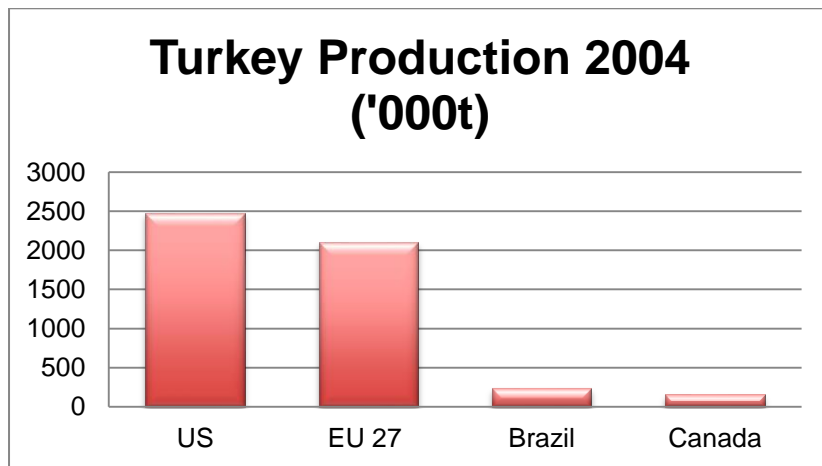


## Summary

Predicting the development of the turkey industry is crucially important for businesses investing in turkey operations. It is particularly important for primary breeders to anticipate market needs of the future given the long product development cycles required to meet customer needs.

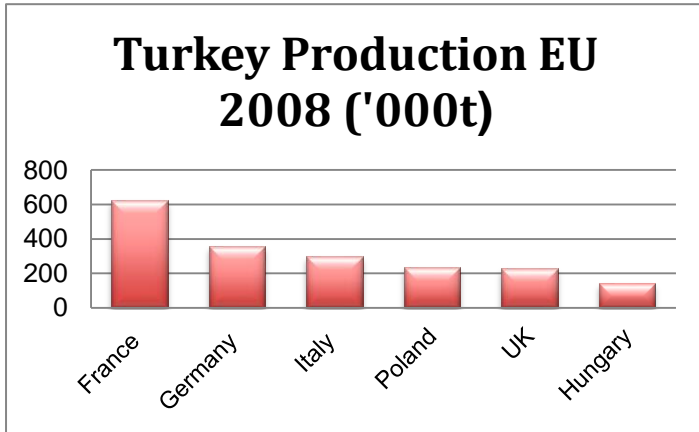
### The Turkey Market in the Early 2000s

In the early 2000's, the US turkey industry were the leading producer of turkey meat, followed by the EU, then Brazil and followed by Canada. North America accounted for approximately 51% of the global production. The EU production accounted for 44% and the remaining production was located in Brazil and China. (Avec,2013)



Graph 1: Turkey production 2004 (AVEC, 2008)

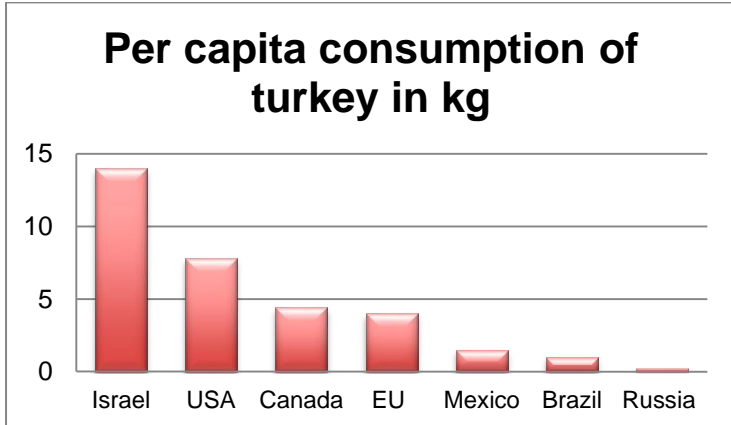
Looking more closely at the production numbers within the EU 89% of its production was produced in only 6 countries. France was the leading producer with 31.4% of the total EU production. Followed by Germany and then Italy. In fourth place was the UK followed by Poland and finally Hungary (AVEC, 2008).



Graph 2: Production EU (AVEC, 2008)

Even though France was the highest producer by volume, its year-on-year trend was showing a decline following a production peak in 2000 at 760,000t/annum. Similarly the Hungarian Market was also in decline. More positively, the German and Polish markets were showing growth year-on year whilst the Italian market was relatively stable due to its maturity. (Hutchinson, 2012) (AVEC, 2008)

The comparative consumption by capita shows that Israel had the highest at 14.kg. The US was 7.9kg and Canada was third at 4.9kg per capita. The EU averaged 4.0kg but within the EU the range showed Germany the highest at 6.2kg with the Netherlands consuming only 1.9kg. It is suspected the reported Russian consumption of 0.7kg per capita is incorrect in 2004 and a more realistic figure of 0.1kg per capita, due to the lack of documented statistics of turkey production in Russia.

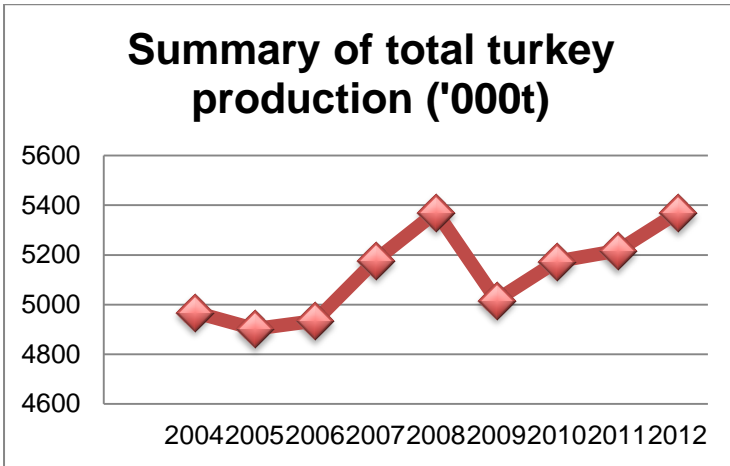


Graph 3: Per capita consumption of Turkeys in (kg) (AVEC, 2008)

### The Turkey Market Today

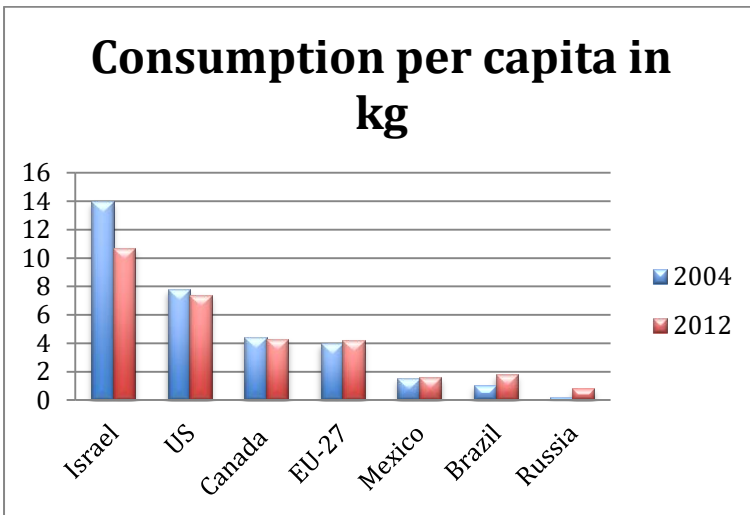
Total tonnes of turkey meat produced in 2012 continue to show the US in poll position with an increase of 8% compared to 2004. The EU 27 is still second and shows a slight decrease, whilst Brazil showed an increase of 112% reaching 510,000 (1000 tons carcass weight) by 2012. The North African market had increased dramatically from 60,000 to 360,000 tonnes in 2013 due to increased financial investment and a shift in affluence.

The Russian market had also increased from 39,000t in 2007 to 119,000t due to increased demand for meat protein. The total market from 2004 to 2012 showed a 5% increase.



Graph 4: Total Production from 2004-2012 (AVEC, 2008) (AVEC, 2013)

When comparing 2004 and 2012 consumption of turkey per capita remains static. The US saw a 400grams decrease per capita. The EU, Canada and Mexico increased slightly. Brazil increased by 80%. Israel, which is still the highest consumer of turkey meat has seen a decrease of 23% to 10.70kg per capita. It peaked in 2008 at 15.68kg. Russian consumption has increased to 800g in 2012.



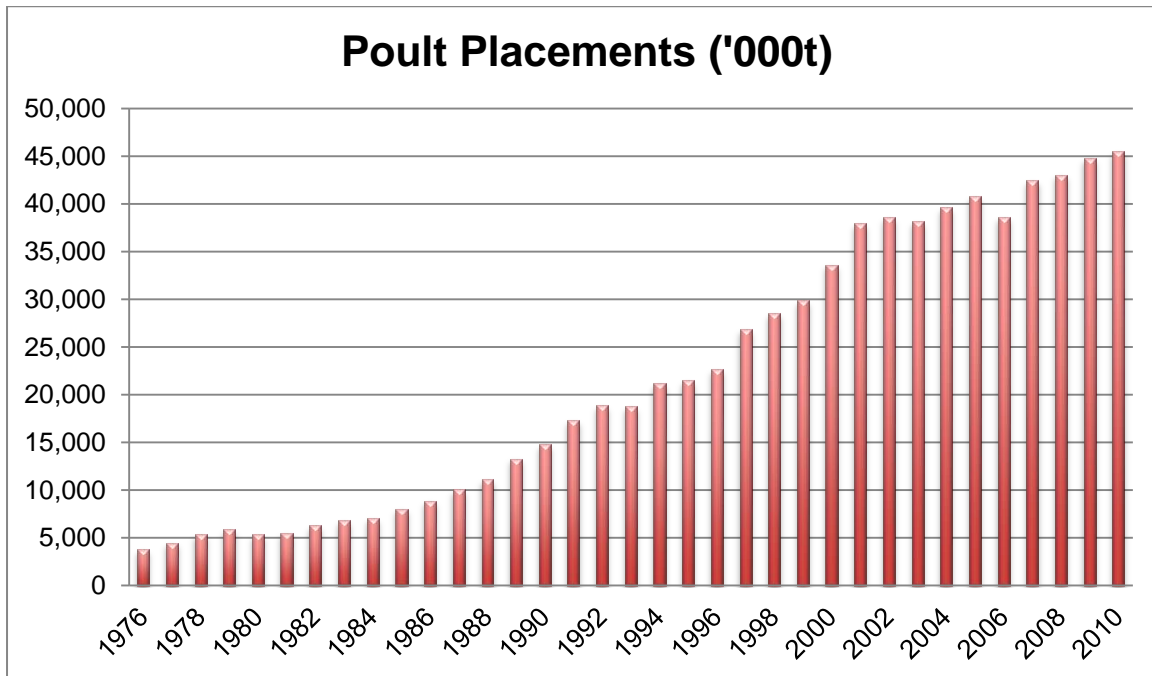
Graph 5: Comparison of consumption per capita in kg by country (AVEC, 2008), personal communication

### Understanding the Markets

Explaining the key markets in some more detail is important to help understand what may happen in the future. As shown above the overall market has increased by 5% since 2004 however some particular markets have grown dramatically over this time and others have decreased.

#### Germany

The German industry began back in the late 70's hatching just 4m poult per year. Each decade since then has seen tremendous growth: 12m by the end of the 80's, 29m by the end of the 90's and over 45m by the end of 2010. Of late the annual increase has plateaued and is currently 46m poult per annum of which an estimated 8million are exported outside of Germany.



Graph 6: German poults placements (MEG, 2014)

### Key Factors for this Success

- High level of investment in state of the art processing facilities, concentrating on deboning and further processing.
- Heavy strains of turkeys are in demand due to their increased processing potential. In Germany less than 5% of turkeys are sold as whole birds.
- In the early days there were many independent entrepreneurs some of which went on to establish integration companies. As a result of this there is a high level of competition within the production chain.
- Very good standard of poultry houses are being used. Due to the high financial investment made over the past years the building materials used means that even 20+ year old poultry buildings are still classed as high calibre poultry buildings.
- The market is well organised. A lot of information is communicated within the industry and objectives are set and agreed. There is a four-pillar principle- Reproducing/Breeding, Fattening, Feeding and Slaughtering/Marketing.
- Resulting in the 5D quality system (born in Germany, bred in Germany, reared in Germany, fed in Germany and slaughtered in Germany) and QS quality system have been established and are well recognised and these products are in demand. The German industry developed these quality systems back in the 1990s and have marketed them very well as a point of difference against other EU turkey production
- Today Aldi and Lidl have 40% of the market. Discounters (excluding Aldi and Lidl) represent 14%. Self service stores account for 17%. Food retailing 17% and others at 12%. Aldi and Lidl have established themselves as large discounters being able to supply the consumer with high quality fresh turkey products but at very competitive discounted prices driving volumes through their stores. (MEG, 2014)

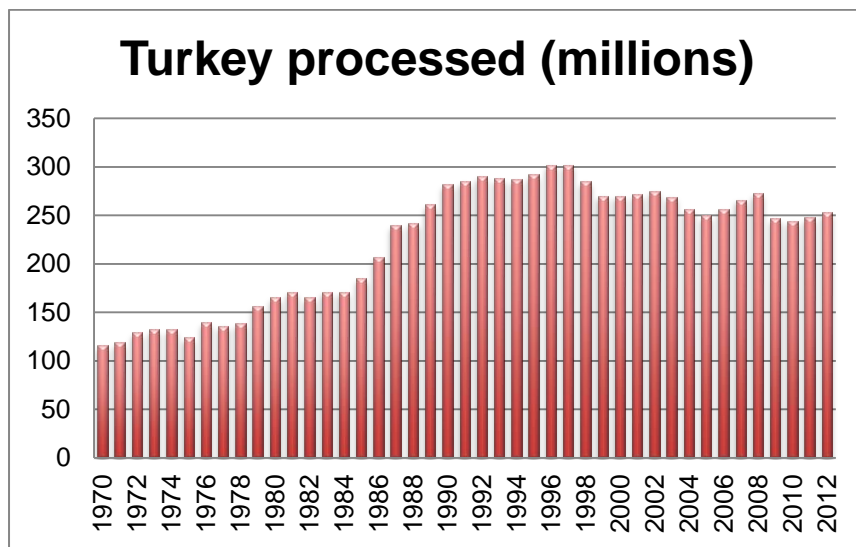
### North Africa

Tunisia, Algeria, Morocco and to some extent Egypt would be the known as the North African Turkey industry. Tunisia's industry started back in the late 1980's by the early 2000's the production was 5 million per year. Today the market has expanded to 8 million. Products sold are cut up portions and further processing. Demand is mainly for the white meat. Morocco established itself in the late 90's producing 1 million. Today the market has grown to 11.5 million, producing mainly Salami, Sausages and further processed products. There are currently two integrated companies established which also sell the end product via their own branded shops. Algeria started in the late 90's currently producing 13 million. Most birds are sold in live bird markets. The North African market is set to continue to grow. In the last two years Morocco and Tunisia have marketed turkey further processed products to the more affluent, middle classed persons which has been a success to date. High price of Beef and lamb is attracting turkey as an alternative protein also. There seems to be

a strong focus on the health status of Turkey with lower cholesterol and lower fat compared to chicken. Due to the absence of pork because of the North Africans religious beliefs this is also having a positive impact for the demand for turkey meat. (Favenec, 2014)

### North America

North America has been producing turkeys since the 1940s and entrepreneurs like George Nicholas started breeding turkeys and developed the white feathered turkey. The US industry has steadily increased year on year. Production peaked in 2008. Very large scale processing facilities and corporate poultry businesses have developed over the years and the use of Agri Stats to compare and benchmark all the major turkey businesses is used widely within the industry. Lowest cost of production is core within the US. Large turkeys are processed aiming at 22+Kg males all for deboning. Deli type products are the number one seller. The largest turkey retailer is Subway. Hens are produced as a frozen whole bird and are consumed for Thanksgiving and Christmas. (National Turkey Federation , 2013) (Douglas, 2014)



Graph 7: Numbers processed 1970- 2012 (National Turkey Federation , 2013)

### The Future – Next 15 to 20 Years

Production will increase over the next 15 years. This increase will be slow over the next 5 years or so. However, in the following 10 years the annual increase will accelerate faster due to increased demand. World population growth is estimated to increase by 20% to 8 billion by 2030. The main increases will be in Asia, Africa and South America. 61% of the population will be in Asia. The EU will only account for 6.5% of the world population. All these extra mouths will need feeding. Demand for food and meat protein will increase.

The world is becoming more affluent. It is estimated that 4.8 billion of the world population will be middle class by 2028; this is compared to the current 1.8 billion middle class people. Richer more affluent people eat more! Meat consumption increases with higher disposable income. (UN, 2013)

During this time though, with our population growing, our farming land will diminish. Currently we are losing 2 acres of farming land per minute. This is caused by changing weather patterns causing water to become scarcer. The current need for crops to be used for bio-fuels further adds to this pressure. Every human lives off the farming equivalent of about 1/3 of a football pitch in their lifetime. Due to the above this will shrink by half. Therefore forcing an increase in productivity from agriculture.

Productivity, sustainability and improving our carbon footprint will be core for the future. The environmental credentials of the turkey industry will further improve with the investment by the breeding companies in genetics and gains predicted in FCR. This will further widen the gap between our industry and red meat production.

Turkey meat is well documented as being healthy. It has a health advantage over chicken and all red meat proteins. However the number of consumers who buy turkeys for its health reasons is still very small. The population is getting fatter, it is estimated that 30% of the world population is overweight and 300 million are obese. (WHO, 2014)

Type 2 diabetes has increased dramatically and an estimated 350 million people are affected. This financial cost in the US is estimated at \$240 billion per annum, this cost will rise to over double to \$550 billion by 2030. More than 50% of the world population will be overweight by 2030. In time, it is highly likely that governments will put severe pressure on food and drink manufacturers due to the financial burden on the tax payer. It has already been mooted that a fat tax will be introduced on some food and drinks. With the health benefits of turkey meat over other proteins, this can only be beneficial to the industry.

## Emerging Markets

North Africa will continue to grow along with other Middle Eastern countries in particular Iran and neighbouring countries. South Africa also has good potential to develop turkey consumption further. South Americas own domestic consumption will increase. It is likely that China will eventually establish a higher demand for turkey protein, however it is likely that its requirements initially will be satisfied primarily from imports from the US. Russia and Asia will also continue to increase over time. Consumption in India is a possibility but unlikely within the next 15 years. Within the EU the emerging markets are likely to be further East. Ukraine, Poland etc will continue to grow. Turkey the country has the potential to expand further its own domestic consumption is low and has the potential to grow. It is also geographically well placed to export more product to the Middle East and the “Stan countries” ie Afghanistan, Kazakhstan and Turkmenistan etc. (Favennec, 2014)

## Conclusion

In summary turkey production will show an increase over the next 15 years. However, as other proteins will also be in demand, this growth cannot be taken for granted. There is a huge opportunity for our industry but it will be a lot of hard work in order to achieve further growth. We all have a responsibility and a part to play from the genetics company to the production facilities, to the processors and the marketers that finally sell our products.

Cooperation within the industry is needed to achieve the latter. We will have to co-operate within the chain if we are to take this opportunity and make the years to come a success.

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