

Broiler Industry in Malaysia

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Introduction

Broiler meat is a primary protein source for the majority of Malaysian populations. Malaysia is one of the highest poultry consumers in the world with a per-capita consumption of 35.3kg in 2011 (MoA, 2011). In 2010, broiler production in Malaysia contributed 53.2% of the total livestock production which was valued at RM10.85 billion (Tapsir *et.al*, 2011). This industry has experienced high self-sufficient level, which was achieving 128.1% in 2011 (MoA, 2011).

The overall production of broiler has expanded steadily, in line with the growth in local demand and could be exported to some countries. Currently, Malaysia is exporting live birds and processed poultry products to Singapore and some Middle East countries. Singapore is the largest poultry market where over 1.716 millions live birds were exported every day in 2014. Malaysia is taking an advantage of its geographical proximity to penetrate Singapore's market. Even though Malaysia can export its broiler, it still imports broiler meat products for processing industries. Government tightly controls the imports of poultry meat. The importers are only allowed to import certain portion of broiler meat, such as breasts and whole legs. In 2012, China was the main supplier of broiler meat to this country, followed by Thailand, Denmark and the Netherlands.

The development of broiler industry in Malaysia is supported by good production technology. In general, Malaysian farmers use advance technologies such as housing and infrastructure. For example, almost all farmers use closed house system that integrates the cooling system, pest and pollution control and waste management. This paper highlights the broiler production technology and its impacts on the broiler industry in Malaysia.

Broiler production

The development of broiler industry has been emphasized in the National Agriculture Policy (1998-2010) and National Agro-food Policy (2011-2020). A developed broiler industry is very important to sustain food security for the people. The National Agricultural Policy (1998-2010) includes broiler production as one of its strategies to ensure sufficient supply of eggs and poultry. In line with this agenda, an effort to integrate the industry and to stimulate efficiency among the small farm sector were singled-out as strategies. Moreover, the National Agro-food Policy (2011-2020) stated several strategies to ensure that the broiler industry be sustained as a competitive industry. Among the strategies are to strengthen broiler production activities by encouraging modern technology in line with good farming practices, such as closed house system and automation. The industry also promotes the use of effective microorganisms as natural control agents. Broiler production is increasing every year due to higher demand by local consumers and export markets. For example, the production of broiler has increased from 471.56 million birds in 2007 to more than 720.11 million birds in 2013. (Figure 1)

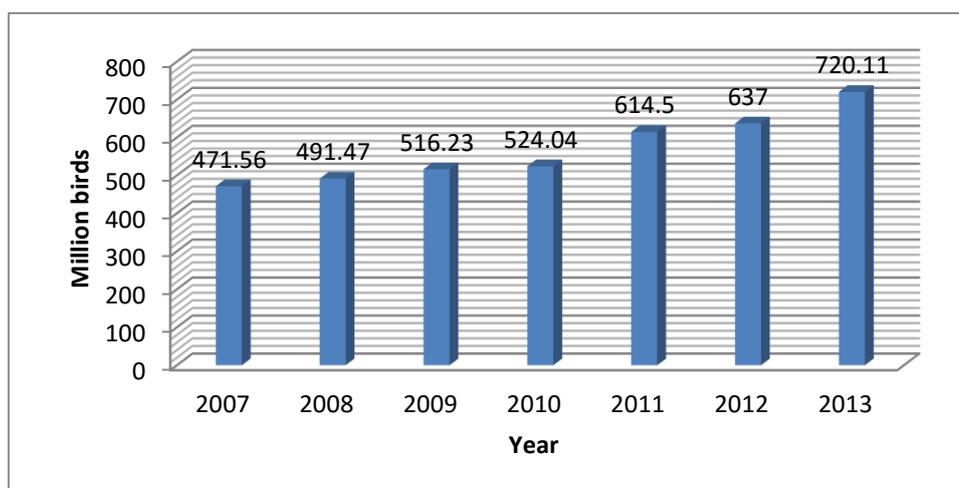


Figure1. Commercial broiler production (2007-2013)
Source: Department of Veterinary Services

Broiler production in Malaysia is dominated by several giant companies, and they can be divided into five categories: grand parent, broiler parent, layer parent, commercial broiler and commercial layer (Table 1).

Table 1. Production of broiler in Peninsular Malaysia (2010-2013)

Types of operation	No. of companies	No. of farms	Population (m)
Grand parent	4	4	0.90
Broiler parent	23	79	11.35
Layer parent	5	14	0.31
Comm. broiler	Individual/ Contract	+/- 2600	118.52
Comm. layer	Individual/ Contract	+/- 300	47.35

The principal breeds in Malaysia are Cobb and Ross, accounting for 96.6% of the total population. For example, in 2012, most of broiler operators used the locally bred Cobb and Ross. Table 2.

Table 2. Market share of individual breeds of broiler parent stock

Breeds	2010	2011	2012	2013
Cobb	3,370,998	3,806,380	4,176,346	4,594,523
Ross	1,306,322	1,312,480	1,290,105	1,385,345
Arbor acres	180,587	220,770	194,441	333,106
Indian rever	0	0	0	34,855
Total	4,857,907	5,339,630	5,660,892	6,347,829

On average, production cycle for broilers in Malaysia is 5.33 times a year. Only a few operators, especially the multinational companies, produce six times a year. The Feed Conversion Ratio (FCR) in Malaysia is 1.67 which is in a competitive range among the world's top broiler production. The FCR ratio indicates the broiler's efficiency in converting animal feed into increases of desired bird weight. The viability of broiler venture is also determined by the rate of mortality. The annual mortality rate is 4.32%, which means that the broiler production industry in Malaysia is very competitive. The harvesting day is when the bird reaches a minimum weight of 2.2kg. On average, the chicken is ready to be sold after 30 - 33 days. Around 65.3% of broiler operators sell their birds to those engaged in contract farming to supermarkets and processing industries, while the balances are sold as live birds on open markets.

Broiler production technology

The poultry industry in Malaysia has generally benefited from the adoption of major structural changes moving towards large-scale, vertically integrated broiler operations that contract grow-out operations to smaller farmers. Almost all the necessary innovative technology (high-quality feed and breeds, pharmaceuticals and biologicals to prevent disease, poultry housing and production systems) for the poultry industry in Malaysia has been imported, with minor adaptation to the local environment. The housing and infrastructure technology, disinfection technology and pest and pollution-control technology are the most adopted technologies by broiler operators. About 60% of broiler operators in Malaysia use close housing system and adopt modern technologies. Animal health management, feed management and bio security elements were the major concerns of farm operators because it reflected on profits and loss achievements. The other technology practices adopted by the broiler operators included feeding system, disinfection method, vaccination practices, and fly and odor pollution control, farm waste management and disposal of the broiler carcasses.

Meanwhile, accreditation, cooling system technology and farm waste management were among the least technologies adopted by broiler operators in Malaysia. The lower score for these parameters does not mean that the broiler operators are neglecting the technology aspects. It only indicated that those technology are practiced at the minimum level. It is financially hard for the broiler operators to practice all the sophisticated technology, especially for medium-scale broiler operators.

Accreditation parameter explained the certification and standard of accreditation obtained for broiler farms. This accreditation covered *Sijil Amalan Ladang Ternakan* (SALT), HALAL certification, Veterinary Health Mark (VHM), Good Animal Husbandry Practices (GAHP). Housing and infrastructure technology described the includes close and open house systems with all necessary the equipment. Cooling system technology helps to control temperature inside the housing system. The cooling system technology is only implemented in the close house system. Finally, disinfection technology, pest and pollution technology and farm waste management technology indicated the importance of bio-security control, especially animal health management to ensure the safety and health of broiler chicken.

Issues and challenges

In spite of its development, the broiler industry is facing many challenges that could slow down its growth. Some challenges that need to be seriously addressed by the government are as follows:

- Free World Trade and Global sourcing (Unknown impact of AFTA)
 - opens up the country to the dangers of importing products of below standards
 - fierce market competition
 - any slack in demand or over supply will lead to producers selling below cost.
- Production cost
 - increase due to feed cost. 70% of the production cost is on poultry feed.
 - competition for feed resources with global energy demands (bio-fuel production)
 - Most of the feed raw ingredients are imported
- Diseases
 - a global challenge to agriculture and public health
 - the impact of diseases and of their control
 - much is not known of many disease and its origins
- Poultry welfare
 - increasing concerns about the health and welfare of chickens kept for meat & egg production.
 - GAHP – improved health & welfare
 - prevent diseases and mitigate any negative environmental impacts

The future direction of Malaysia's broiler industry is guided by the following strategies:

- ensure poultry farming and processing in harmony with the environment
- raise production efficiency of the industry to be at par with world standard
- build consumer confidence towards local products
- make the poultry products sold locally good enough for export.

Conclusion

Broiler meat is important to every household in Malaysia as it is included in their people's diets at least once a week either at home or local restaurants. It is the most competitive industry in the poultry sub-sector. The development of broiler industry in Malaysia is guided by the application of production technologies. The application of technologies in the production system enables the industry to be developed efficiently and achieve the objectives as stated in the National Agro-Food Policy (2011-2020).

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