Swine Production in the Philippines

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The Philippines is located in Southeast Asia. It is an archipelago with a total area of 300,000 Km^2 wherein 32% is devoted to agriculture. Its 2007 census showed that it had a population of 88.57 million but the July 2008 estimate is already 92.68 million. The derived annual per capita pork consumption in 2007 was 15.07 kilograms excluding offals and processed meat.

The PHP 160 billion hog industry is the second leading contributor to Philippine agriculture coming in second to rice despite being almost exclusively without government subsidy.

The country's swine total inventory as of January 1, 2008 was estimated at 13.7 million head, up by 1.80 % compared to last year's level. Backyard farm initial stocks this year went down by 1.00 % while, commercial farms inventory registered a 9.37 % increase against initial stocks of 2007. About 71 % of the swine population are raised in backyard farms while 29 % are in commercial farms.

The swine industry which accounted for 80 percent of total livestock production registered a 2.72 % growth in 2007. The gain in production was noted during the 2nd and 4th quarters of 2007 when more animals were slaughtered.

In 2007, the average annual price received by farmers was P71.26, about 2.83 % higher than the 2006 price. Similarly, the average wholesale price of live hogs in Metro Manila went up by 0.77 %. Annual average retail price in Metro Manila increased by 0.83 % from the record set the previous year.

The Bureau of Agricultural Statistics (BAS) stated that Philippine hog production dipped slightly from 1.89 tons in 2007 to 1.86 tons in 2008. The most notable decrease in stocks was the numerous losses incurred by farms mainly in Luzon due to diseases like hog cholera, PRRS, Pseudorabies, Swine Flu and Circovirus in the last year. The disease scare was such that farmers immediately sold their pigs for fear of getting hit by the continuing drop in market price while feeling the increase in prices of commercial feed as well as the basic ingredients like corn.

In terms of value, however, the pig sector posted an 11.29% increase with PHP 149.59 billion (USD 3.16 billion) from PHP 134.42 billion (USD 2.84 billion) in 2007. The BAS attributed the growth to improved farm prices which averaged PHP 80.61 (USD 1.70) per kg in 2008 compared to PHP 71.27 (USD1.51) per kg in 2007.

While backyard pens are very cheap, it is estimated that commercial farms will spend around PHP 4000 (€60) per m^2. Building Cost Estimate (300 Sow Level).

	Area	**Cost/m^2, €**
Gestation	720	109
Farrrowig	800	179
Nursey	600	157
Finishig	2000	119

Total Cost of Buildings Ave. 60 €/m^2

Production System
Pig rearing practices in the country need a lot of improvement considering that about 70% of pigs are on a backyard level. The infection pressure is high as biosecurity is compromised in a mostly one-site system where re-circulation and spread of pathogens is great. Bigger operations, however, are now tunnel ventilated and multi-site and able to implementing an all-in all-out system. Automation has also been established in many commercial and integrated farms.

Biosecurity is not fully understood by most farmers thus making farms vulnerable to disease outbreaks. Isolation pens for sick pigs or incoming pigs are mostly not available even in some commercial operations. Standard protocols and quarantine period for newly purchased animals are not properly implemented. Most farmers wait for their pigs to get sick before they seek professional advice.

Genetics
International pig breeding companies have put up nucleus farms or established joint ventures with local farms. Some

big farms import pure breeds either as live animals or semen to upgrade their stocks. Farm cooperatives also tie up with local breeders to assure their members of quality breeders. However, the majority of the backyard raisers select their replacements from the production of their terminally crossed breeders.

Feeds and Feeding System

Commercial feed mills are well established all over the country. They cater largely to the backyard farmers although medium sized commercial farms have started to patronize them particularly for piglet and lactating sow diets. Big farms operate their own feed mills. Farmers have also grouped together to form cooperatives opting to put up their own feed mills. The most common feeding strategy for many farmers is the 2-3 times daily feeding of the usual corresponding ration from booster to lactating. Backyard farmers, however, provide the cheaper brood sow ration, a diet given to all breeders whether, dry, pregnant, nursing or boars. Swill or left over feed, even if cooked, is no longer popular even among backyard raisers unless a link to eateries or restaurants has been instituted.

Farm Records

Computerised farm recording is well established in many big commercial farms. Manual recording is common for medium and small scale farms. Backyard raisers are satisfied with a small notebook to record all farm transactions and events. Most farmers could not interpret or analyze the data that they have listed to evaluate farm performance. Obviously, without proper monitoring, a farmer says the farm is profitable if he is able to pay his debts regularly and feels he is losing when he can no longer pay them on time.

Parameter	Low	High	Total/Ave
Litter Size at birth			
Alive	6,87	10,32	9,26
Mummified	0,03	0,55	0,2
Stillborn	0,14	0,84	0,43
Total	7,14	11,6	9,9
Mummified (%)	0,26	4,76	1,96
Stillborn (%)	1,46	8,79	4,35
Average birth weight (kg)	1,3	1,62	1,48
Litter size at weaning	6,53	9,67	8,47
Weaning age (d)	21,27	32,77	27,7
Average weaning weight (kg)	5,58	8,91	7,47
Weaning to conception interval (d)	9,62	19,46	11,69
Gestation period, days	113,69	116,27	114,73
Farrowing interval (d)	150,23	171,44	156,53
Farrowing interval[a] (d)	149,59	203,7	169,59
Farrowing rate (%)	67,84	83,55	76,28
Preweaning mortality (%)	2,34	22,29	8,59
Mortality based on total population (%)	0,96	6,82	3,13
Farrowing/sow index	2,13	2,44	2,34
Farrowing/sow index[a]	1,8	2,45	2,17
Pigs weaned per sow per year (PWSY)	15,22	22,95	19,78
PWSY[a]	11,73	21,12	18,35
Non-productive days	(0.41)[c]	53,7	19,59
Average daily gain (kg)	0,296	0,595	0,523
Adjusted 180-day weight (kg)	53,25	107,1	94,19
Adjusted 90-kg age (d)	151,27	304,23	175,61
Average weight of RSH[b] sold (kg)	68,79	99,68	87,57
Average age of RSHb sold (d)	141,74	232,53	168,76
Adjusted farm efficiency	2,96	5,32	3,44
Adjusted feed cost/kg live animals sold	53,43	101,11	67,45
Pigs produced per sow per year (PPSY)	10,64	20,53	16,08
Price of RSH[b]	76,69	95,72	86,67

Legend: a/ based on Average Effective Sows (productive and non-productive), b/ Regular Slaughter Hogs, c/Drastically decreasing sow level.
Source: Philippine Swine Industry Research and Development Foundation, Inc.

Animal Health
The pig production system mostly seen in the country predisposes the farm to a high disease challenge. The non-referral to regular diagnostic procedures creates confusion in coming up with a sound medication and vaccination program. Vaccination in most farms is established by convenience and hearsay or just by following recommendations of favorite suppliers. Antibiotics, particularly in-feed products, are added routinely without a regular sensitivity test.

Disease Concerns
In the last 3 years, pneumo-enteric outbreaks have beset the pig industry. Apart from the usual colibacillosis and salmonella problems, 2006 was marred by the appearance of Porcine Epidemic Diarrhea (Asian Type) which dealt a very high mortality in suckling pigs. Farmers resorted to feedback even as PED vaccines from South Korea and milk additives with immunoglobulins for PED, TGE, E. coli and Rotavirus became fast sellers. PED continues to have sporadic outbreaks in Luzon up to now.

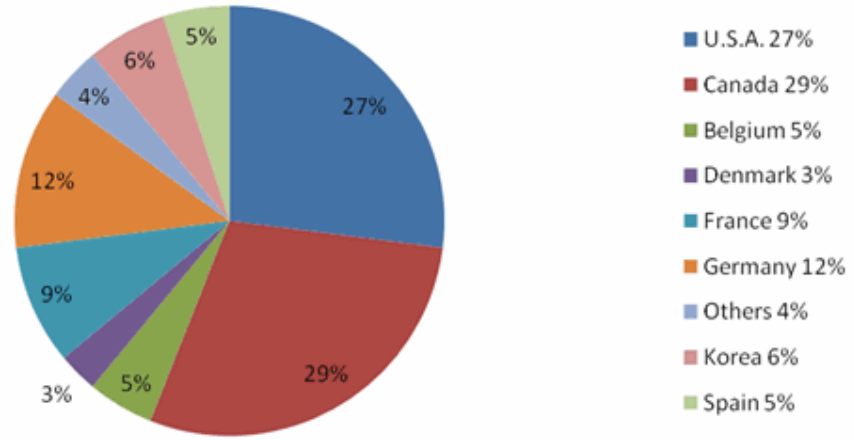
The biggest headache has been the Porcine Respiratory Disease Complex which included PRRS, Swine Flu, Pseudorabies and Hog Cholera. A number of farms closed down as a result of these diseases. In 2008, the Philippines sought the assistance of the international diagnostic laboratory in the USA only to find out that apart from confirming the presence of PRRS strain similar to the Chinese outbreak and PCV2, it was also positive for Ebola Reston virus. This was the first report globally of ebola infection in pigs.

The Department of Agriculture has submitted pertinent documents to the OIE to have Luzon certified as Foot and Mouth Disease free and pave the way for the declaration of the Philippines as an FMD-free country.

Marketing
Of the 30% commercial farm sector, only a few are fully integrated. Pigs are usually sold through a middleman also known as "Viajeros". They bring the pigs to the slaughterhouses and distribute the carcasses to the wet markets. The high cost of feeds and diseases during most of 2008 created a shortage and the price of pork soared to Php 170 per kilo.

Consequently, the Philippines imported more meat and meat products in 2008 to make up for a low performance and fill up the rising demand of meat processors for cheap materials for their processed products affordable to consumers. Pork was the biggest meat item brought into the Philippines last year. Major imports consisted of pork fats, offal and pigskin. Of the 12 countries from which the Philippines gets its pork, North America (Canada and the USA) cornered 56% of all imports. Korea was the only Asian country in the supplier's list.

Pork imports 2008 supplier market shares



Despite the hard times and high food prices, the country's pork demand is forecast to rise faster than supply from the 2nd to the 4th quarter. The forthcoming national elections in 2010 may even trigger expansion of some farms to address the increasing demand for pork.