

Global trend in the pork market:  
Increasing need for disease prevention strategies

## ASEAN+Taiwan Pig Industry Vision

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1

## World population projection

- By 2050, expected Global Population will be 9.2 Billion.
- Increase of 2.2 Billion
- + 73 % protein demand
- Pork is heading the world production (110 Mio t in 2012; 129 Mio t in 2022)
- > 70 % of additional supply due to efficiency improving technologies in production and animal health
- Global trend: food safety, sustainability, animal welfare and prudent use of antibiotics

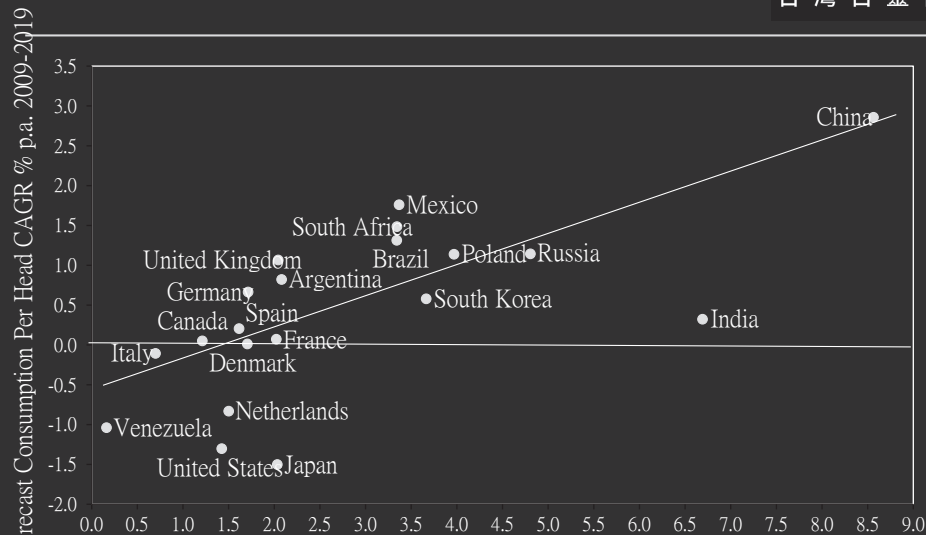


預防為王  
PREVENTION WORKS  
作伙打拼養豬的未來

GENESIS FRAMEWORK 2014

2

## Pig Meat Demand 2009-2019

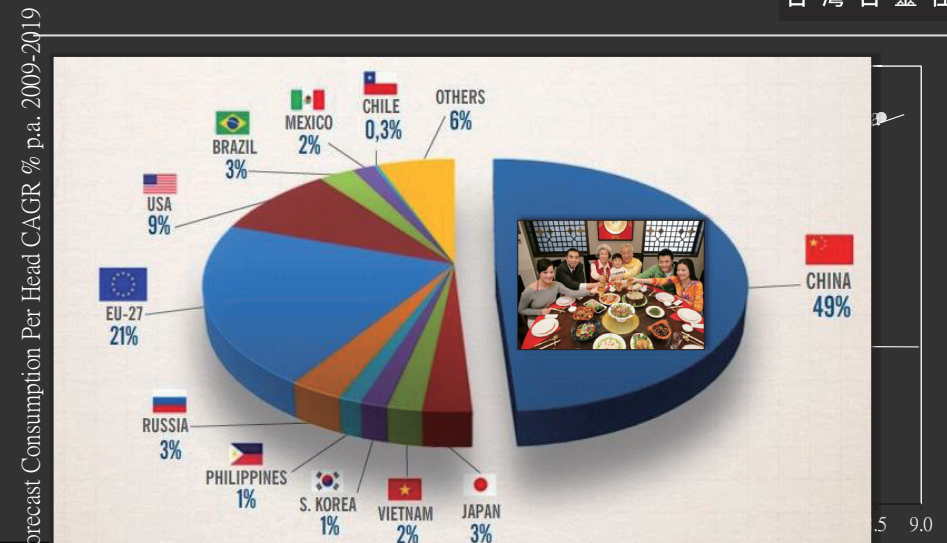


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Source: Vetnosis / Pig Outlook 2010 & STORM

3

## Pig Meat Demand 2009-2019



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4

FIGURE 1: WORLD PORK PRODUCTION: PAST TREND AND FORECAST

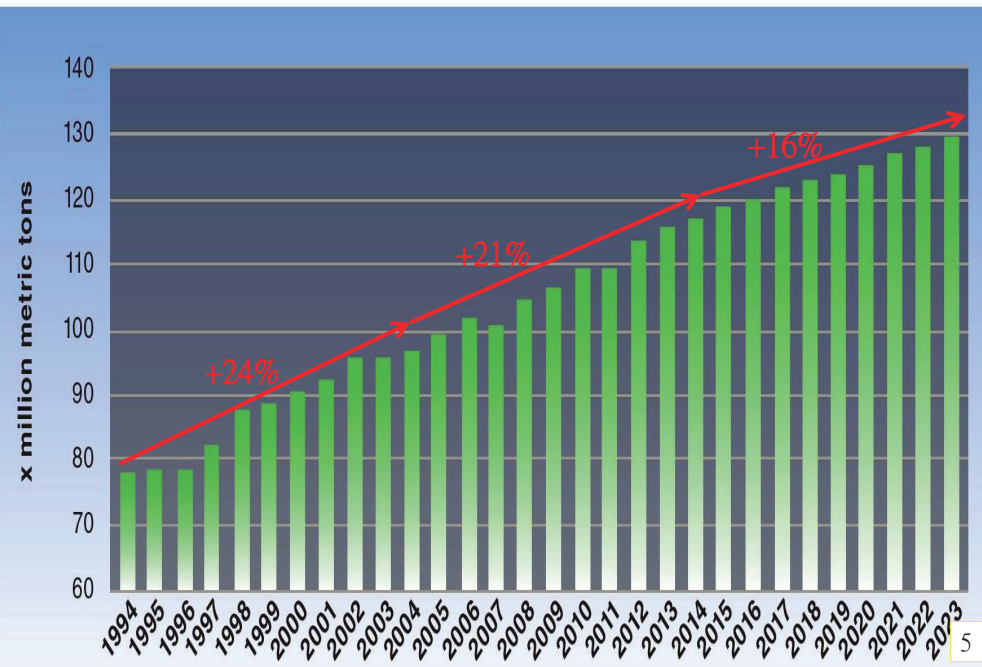


TABLE 1: TRENDS IN ANNUAL PORK PRODUCTION (X 1,000 TONS) FOR THE 20 COUNTRIES RANKED LARGEST FOR ANNUAL VOLUME IN 2013

|                       | Rank      | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  |
|-----------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                       | 2012      |       |       |       |       |       |       |       |       |       |       |
| <b>10 Poland</b>      | <b>10</b> | 1,923 | 1,926 | 2,071 | 2,091 | 1,888 | 1,608 | 1,741 | 1,811 | 1,695 | 1,684 |
| <b>11 Italy</b>       | <b>11</b> | 1,590 | 1,515 | 1,556 | 1,603 | 1,606 | 1,588 | 1,633 | 1,570 | 1,621 | 1,625 |
| <b>12 Denmark</b>     | <b>12</b> | 1,810 | 1,793 | 1,749 | 1,802 | 1,707 | 1,583 | 1,666 | 1,718 | 1,604 | 1,589 |
| <b>14 Netherlands</b> | <b>14</b> | 1,287 | 1,297 | 1,265 | 1,290 | 1,318 | 1,275 | 1,288 | 1,347 | 1,332 | 1,307 |
| <b>15 Japan</b>       | <b>15</b> | 1,272 | 1,245 | 1,247 | 1,251 | 1,249 | 1,310 | 1,292 | 1,267 | 1,297 | 1,304 |
| <b>16 Mexico</b>      | <b>16</b> | 1,150 | 1,195 | 1,108 | 1,152 | 1,161 | 1,162 | 1,175 | 1,202 | 1,239 | 1,281 |
| <b>17 Korea Rep.</b>  | <b>19</b> | 1,105 | 1,050 | 1,091 | 1,133 | 1,056 | 1,062 | 1,110 | 837   | 1,086 | 1,252 |
| <b>18 Belgium</b>     | <b>17</b> | 1,032 | 1,013 | 1,006 | 1,063 | 1,056 | 1,082 | 1,124 | 1,108 | 1,110 | 1,131 |
| <b>19 Taiwan</b>      | <b>18</b> | 898   | 911   | 930   | 913   | 862   | 857   | 845   | 865   | 878   | 842   |
| <b>20 UK</b>          | <b>20</b> | 720   | 706   | 697   | 739   | 740   | 720   | 772   | 806   | 825   | 833   |

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|----------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                      | 2012      |        |        |        |        |        |        |        |        |        |        |
| <b>1 China</b>       | <b>1</b>  | 47,016 | 50,106 | 48,700 | 42,878 | 46,205 | 48,905 | 51,070 | 49,500 | 53,427 | 55,620 |
| <b>2 USA</b>         | <b>2</b>  | 9,312  | 9,392  | 9,559  | 9,962  | 10,599 | 10,442 | 10,186 | 10,331 | 10,555 | 10,530 |
| <b>3 Germany</b>     | <b>3</b>  | 4,308  | 4,500  | 4,662  | 4,985  | 5,114  | 5,241  | 5,443  | 5,598  | 5,459  | 5,474  |
| <b>4 Spain</b>       | <b>4</b>  | 3,076  | 3,168  | 3,235  | 3,439  | 3,484  | 3,291  | 3,369  | 3,469  | 3,466  | 3,431  |
| <b>5 Brazil</b>      | <b>5</b>  | 2,621  | 2,710  | 2,830  | 2,990  | 3,015  | 3,130  | 3,195  | 3,227  | 3,330  | 3,280  |
| <b>6 Russia</b>      | <b>6</b>  | 1,433  | 1,334  | 1,444  | 1,640  | 1,736  | 1,844  | 1,920  | 2,000  | 2,075  | 2,400  |
| <b>7 Vietnam</b>     | <b>7</b>  | 1,408  | 1,602  | 1,713  | 1,832  | 1,850  | 1,910  | 1,930  | 1,960  | 2,000  | 2,260  |
| <b>8 Philippines</b> | <b>13</b> | 1,709  | 1,771  | 1,836  | 1,886  | 1,856  | 1,877  | 1,898  | 1,940  | 1,974  | 2,012  |
| <b>9 France</b>      | <b>8</b>  | 2,311  | 2,274  | 2,263  | 2,281  | 2,277  | 2,004  | 2,010  | 1,998  | 1,957  | 1,939  |
| <b>10 Canada</b>     | <b>9</b>  | 1,936  | 1,920  | 1,898  | 1,894  | 1,786  | 1,789  | 1,779  | 1,812  | 1,840  | 1,820  |

TABLE 2: BREEDING INVENTORY TRENDS (X 1,000 SOWS) IN 30 COUNTRIES RANKED FOR SOW NUMBERS IN 2013

|                       | Rank      | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   |
|-----------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                       | 2012      |        |        |        |        |        |        |        |        |        |        |
| <b>1 China</b>        | <b>1</b>  | 44,940 | 46,930 | 44,206 | 47,416 | 48,788 | 49,100 | 47,500 | 49,280 | 49,250 | 51,100 |
| <b>2 USA</b>          | <b>2</b>  | 5,969  | 6,011  | 6,116  | 6,233  | 6,062  | 5,850  | 5,778  | 5,803  | 5,770  | 5,757  |
| <b>3 Vietnam</b>      | <b>3</b>  | 3,882  | 3,930  | 4,002  | 4,109  | 4,150  | 4,220  | 4,390  | 4,020  | 3,990  | 3,910  |
| <b>4 Brazil</b>       | <b>4</b>  | 3,020  | 3,030  | 3,040  | 2,970  | 2,960  | 2,890  | 2,925  | 2,920  | 2,915  | 2,910  |
| <b>5 Russia</b>       | <b>6</b>  | 1,900  | 2,000  | 2,104  | 2,124  | 2,060  | 2,130  | 2,150  | 2,100  | 2,200  | 2,530  |
| <b>6 Spain</b>        | <b>5</b>  | 2,606  | 2,593  | 2,689  | 2,663  | 2,542  | 2,440  | 2,408  | 2,404  | 2,250  | 2,323  |
| <b>7 Germany</b>      | <b>7</b>  | 2,467  | 2,504  | 2,467  | 2,418  | 2,296  | 2,236  | 2,233  | 2,194  | 2,118  | 2,054  |
| <b>8 Philippines</b>  | <b>8</b>  | 1,520  | 1,481  | 1,539  | 1,635  | 1,666  | 1,647  | 1,520  | 1,515  | 1,537  | 1,553  |
| <b>9 Denmark</b>      | <b>10</b> | 1,397  | 1,340  | 1,414  | 1,353  | 1,289  | 1,346  | 1,286  | 1,239  | 1,229  | 1,258  |
| <b>10 Canada</b>      | <b>9</b>  | 1,597  | 1,571  | 1,546  | 1,483  | 1,371  | 1,310  | 1,294  | 1,195  | 1,165  | 1,192  |
| <b>11 Thailand</b>    | <b>11</b> | 1,080  | 1,082  | 1,100  | 1,050  | 840    | 960    | 1,001  | 1,141  | 1,262  | 1,180  |
| <b>12 Netherlands</b> | <b>13</b> | 1,125  | 1,100  | 1,050  | 1,060  | 1,025  | 1,100  | 1,098  | 1,106  | 1,081  | 1,095  |
| <b>13 Mexico</b>      | <b>15</b> | 1,088  | 1,100  | 1,071  | 1,065  | 1,067  | 1,068  | 1,065  | 1,070  | 1,065  | 1,080  |
| <b>14 France</b>      | <b>14</b> | 1,296  | 1,274  | 1,264  | 1,234  | 1,200  | 1,185  | 1,116  | 1,103  | 1,076  | 1,043  |
| <b>15 Poland</b>      | <b>12</b> | 1,649  | 1,808  | 1,786  | 1,587  | 1,279  | 1,361  | 1,328  | 1,125  | 1,012  | 955    |

TABLE 2: BREEDING INVENTORY TRENDS (X 1,000 SOWS) IN 30 COUNTRIES RANKED FOR SOW NUMBERS IN 2013

|                | Rank 2012 | 2004 | 2005 | 2006  | 2007  | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|----------------|-----------|------|------|-------|-------|------|------|------|------|------|------|
| 16 Japan       | 16        | 910  | 907  | 915   | 910   | 937  | 930  | 902  | 900  | 895  | 895  |
| 17 Korea Rep.  | 17        | 935  | 966  | 1,012 | 1,004 | 913  | 966  | 976  | 903  | 962  | 893  |
| 18 Taiwan      | 18        | 828  | 838  | 806   | 720   | 688  | 671  | 695  | 700  | 644  | 605  |
| 19 Italy       | 19        | 725  | 722  | 772   | 754   | 756  | 746  | 717  | 709  | 621  | 590  |
| 20 Ukraine     | 20        | 509  | 560  | 614   | 433   | 440  | 518  | 519  | 472  | 483  | 520  |
| 21 UK          | 21        | 541  | 505  | 524   | 498   | 487  | 481  | 491  | 484  | 494  | 482  |
| 22: Belgium    | 22        | 608  | 584  | 578   | 567   | 543  | 531  | 507  | 482  | 491  | 472  |
| 23: Romania    | 23        | 426  | 494  | 521   | 443   | 376  | 359  | 356  | 381  | 399  | 384  |
| 24: Chile      | 24        | 310  | 320  | 332   | 355   | 357  | 362  | 355  | 360  | 362  | 364  |
| 25: Hungary    | 25        | 391  | 383  | 396   | 352   | 314  | 309  | 301  | 288  | 279  | 270  |
| 26: Austria    | 26        | 309  | 308  | 313   | 311   | 291  | 288  | 279  | 270  | 258  | 250  |
| 27: Australia  | 27        | 318  | 329  | 352   | 340   | 263  | 242  | 245  | 245  | 239  | 245  |
| 28: Portugal   | 28        | 314  | 315  | 310   | 308   | 303  | 244  | 241  | 231  | 227  | 223  |
| 29: Czech Rep. | 30        | 335  | 338  | 317   | 273   | 212  | 194  | 176  | 142  | 142  | 151  |
| 30: Sweden     | 29        | 195  | 192  | 177   | 175   | 168  | 159  | 155  | 152  | 141  | 122  |

## Swine Industry Change

The global swine industry has undergone incredible change and development over the past decade.

- The world is Changing /Who makes the decisions?/The Governments ?/The Newspapers ?/In the future, The Customers (<http://www.youtube.com/watch?v=8VYngmaON1o>)
- Changes in herd size
- Management practices — How to maximize quality and output through prevention and management ?
- Emerging diseases have all re-shaped the industry
- Animal health companies also need to change
  - and adapt to insure they provide tools
  - that meet the current industry needs
  - as well as those of the future

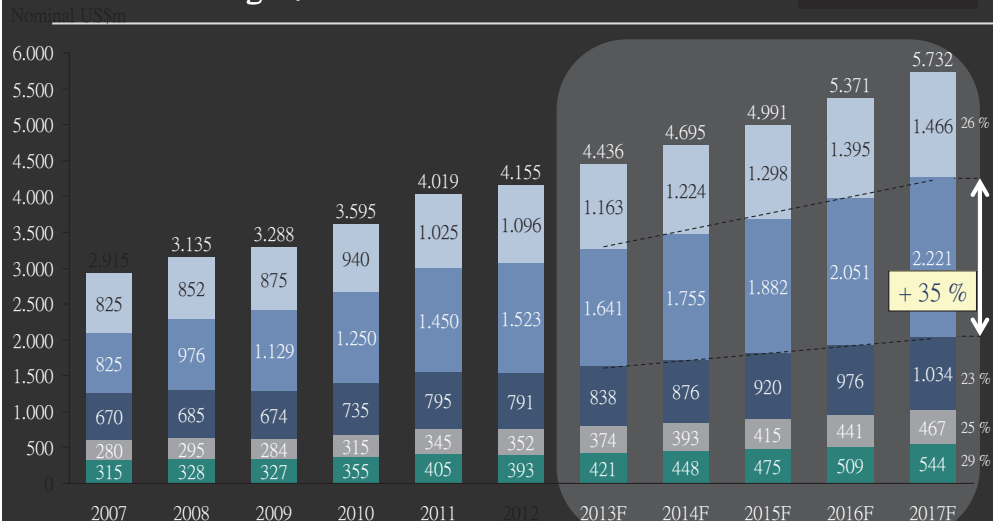
預防為王  
PREVENTION WORKS  
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10

## Swine market per product category

development +5years Outlook

Is our focus right?



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作伙打拚養豬的未來

Business Analysis; Vetnosis, STORMFORECASTS 2013; 2013-2022

11

Swine Biologicals are the largest and fastest growing segment in the swine animal health market

Vision: Every vaccinated pig in the world receives BI-vaccines against at least two pathogens

12

## Higher Priorities for industry



- Information systems and technology transfer
- Policy development
- Environmental management
- Health and food safety
- Feeding and breeding

## Information systems and technology transfer

- Access to information and training by extension staff and producers, particularly smallholders, was seen as seriously lacking in all countries in the region.
- Outcome is that all sections of the pig industry in the region have equitable access to carefully targeted information and training on all aspects of the pig production and marketing chain.

## Policy development

- lack an industry-wide perspective
- are short term in nature, failing to take account of the longer-term economic, social and environmental consequences, esp. smallholder producers
- Not strongly influenced by the powerful commercial sections of the industry
- For the Southeast Asian region is
- that individual countries and/or regional groupings of countries have development plans to satisfy consumer demand for pork in a socially equitable and environmentally friendly manner.
- In short, a Policy for Equitable Production of Safe Economic Pork = PEPSEP

## Environmental management

- Safe, sustainable disposal of liquid and solid wastes from pig production and management of the associated odours, flies, rat etc. is massive and growing problem.
- Uneven resources to use the best available technologies to address the problem.
- all sectors of the pig production and processing industry are managed in such a way as to minimise impacts on the environment, and to maximise value adding for the industry, esp. smallholders.

- Good pig health and food safety issues are profitable and sustainable pig production.
- Diseases control & management in smallholder pigs are generally poor in the region.
- Disease control is more difficult in countries with long land borders .
- Both health and food safety, the differential between smallholders and commercial-industrial pig producers could increase, and contribute to the economic, social, political consequences.
- Medication cost / Cull & Mortality rate / Prevention Works

- The genetic potential of pigs and the quality of their feed are absolutely crucial to efficient profitable pig production.
- Should focus on enabling smallholders to meet market requirements through the combination of genetic improvement and nutrition.
- All pig producers have access to productive breeds and crossbreeds that are adapted to their environments and production systems, together with appropriate access to knowledge and training on nutrition and feeding.
- Keeping systemic records- ADG, FCR, PSY, Turnover rate.

## 產業/事業



- 我們不能改變風向，但我們能調整風帆，讓我們到達目的地。



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