

## **Fruit and Vegetables production in Thailand**

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Total land area of Thailand is 51.3 million ha which agricultural production area shares 20.97 million ha or 40.87%. There are about 5.7 million small scale farms with an average farm size is about 3.68 ha. Rice area is 10.64 million ha (50.74%) with total production of 29.19 million tons. Field crop area is 4.52 million ha (21.55%) with total production of 116.37 million tons. Fruit crop area is 1.25 million ha (5.96%) with total production of 9.02 million tons whereas vegetable area is 0.45 million ha (2.15%) with total production of 5.35 million tons.

Thailand's gross domestic product (GDP) is about US\$ 150 Bn. Agricultural sector contributes 13% of the total GDP (crops 68%, livestock 11%, fisheries 8%, simple processing 9%, agricultural services 3%, forestry 1%). The agricultural sector employs about 56% of the country's population or 35 million people.

The gross export value of Thailand in the year 2004 was 3.92 billion baht with the value from agricultural products shared 882,955 million baht. The export volume of fruit was 1.39 million tons and valued of 38,988.28 million baht. The volume of fruit used for domestic consumption was approximately 7.63- 8.73 million tons, 84.59-87.74%.

The export volume of vegetable of Thailand in the year 2003 was 0.49 million tons, 10.29% and valued of 16,744.60 million baht. The export volume of vegetable slightly increased in the year 2004 of 0.56 million tons, 10.73 % and valued of 18,987.48 million baht and the domestic consumption of vegetable in this year was approximately 4.27-4.66 million tons, 89.27-89.71%. In the year 2003, Thailand also had an FTA with China with contributing to an increasing of an import volume of vegetable from China of 0.25 million tons in the year 2004.

Overall fruit and vegetable produced in Thailand are mainly for domestic consumption for the population of 62.4 million. There is only 10.29-15.41 % of total product for export. The average consumption of fruit and vegetable of the Thai people is relatively high of 0.12-0.13 and 0.065-0.071 tons/person/year for fruit and vegetable respectively.

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In general, fruit and vegetable production in tropical regions faces a lot of problems, insect pests and diseases. Therefore the overused or inappropriate application of pesticides and fungicide are found in some areas with resulting in the level of chemical residues exceed the MRL. Thai government concerns this problem and addresses the strategies of promoting IPC (Integrated Pest Control), reduction the volume of chemical used and introduction of microbial organism, natural enemy insects and plant extraction instead of chemical application.

Thailand also started the pilot projects for hygienic production of pesticide 'safe' fresh fruits and vegetables in 1991, the 'Amazing Thailand Year' and organic farming for crop production is being promoted especially for jasmine rice in the northeastern region. Bio-fertilizers and some effective microorganisms are also being promoted.

### **Export inspection of agricultural products**

Thai governmental policy emphasizes on quality control, the exported products have to reach the minimum requirement of the buyers, therefore the products should be examined and analyzed for quality certification. The certifications are as follow.

- Sanitary Certificate
- Mycotoxin Certificate
- Analysis Certificate
- Microbiology Certificate
- Mercury Certificate
- Health Certificate
- Cooking Certificate
- Filth Certificate
- Endorsement Certificate

### **Future trend of green and organic vegetables consumption**

The export volume of Thai agricultural products increases approximately 10 % each year and importers also require for a safe products, follow the regulations that can be traced back. Thailand has defined itself as the world's Kitchen and addressed the food safety production policy in the year 2003. Twelve kinds of fruits and vegetables are recommended to fallow a safe production procedures from this year. In 2004, the world Food Safety Year, Thailand has emphasizes on good agricultural practices (GAP) and good management practices (GMP) and 29 kinds of fruits and vegetables are produced under these practices.

## Status of the GAP implementation in Thailand in the year 2006

As of July 2006, 501,663 farms had registered for Q GAP certification, 407,034 had been inspected and 204,559 farms with the area of 2,110,341.9 rai (200,860 ha) had obtained Q GAP for 29 fruit or vegetable crops.

The majority of the certifications for fruits are longan (85,648) durian (13,853), mangosteen (13,554) and vegetables are chili (3,400) baby corn (2,995) and asparagus (2,893)

According to official records about 20 packers or exporters have obtained Q Food Safety. The DOA's target is that 334,000 farms will be registered for application by end of 2006. ปัจจุบันนี้พบว่า ความต้องการสินค้าจากผู้ส่งออกและ supermarket ในประเทศต้องการผลิตจากแปลง GAP จึงทำให้ผู้ผลิตส่วนใหญ่ต้องการเข้าสู่ระบบการผลิตตาม GAP

| No. | Crop          | Farm registered |               |            | Farm certified |               |            | On-going Inspection (farm) | On list Inspector (farm) |
|-----|---------------|-----------------|---------------|------------|----------------|---------------|------------|----------------------------|--------------------------|
|     |               | No. of farm     | No. of griwer | Area (rai) | No.of farm     | No. of grower | Area (rai) |                            |                          |
| 1   | Longan        | 127,725         | 102,795       | 783,102    | 85,648         | 68,817        | 531,559.6  | 36,601                     | 5,476                    |
| 2   | Durian        | 25,254          | 21,326        | 308,656    | 13,853         | 11,379        | 167,342.0  | 4,723                      | 6,678                    |
| 3   | Mangosteen    | 24,751          | 22,711        | 223,366    | 13,554         | 11,981        | 109,893.5  | 5,615                      | 5,582                    |
| 4   | Asparagus     | 10,143          | 8,907         | 22,934     | 2,893          | 2,724         | 6,416.5    | 794                        | 6,456                    |
| 5   | Okra          | 3,100           | 2,739         | 7,202      | 697            | 630           | 1,771.6    | 90                         | 2,313                    |
| 6   | Baby corn     | 7,112           | 3,503         | 23,167     | 2,995          | 1,369         | 7,078.0    | 355                        | 3,762                    |
| 7   | Pomelo        | 6,591           | 5,567         | 42,071     | 3,984          | 3,341         | 27,104.5   | 915                        | 1,692                    |
| 8   | Lychee        | 10,978          | 8,722         | 73,530     | 4,631          | 3,690         | 32,357.0   | 4,803                      | 1,544                    |
| 9   | Tamarind      | 6,975           | 6,792         | 61,242     | 3,001          | 2,843         | 33,164.0   | 1,079                      | 2,895                    |
| 10  | Mango         | 16,719          | 14,719        | 176,326    | 6,064          | 5,026         | 88,610.0   | 2,857                      | 7,798                    |
| 11  | Ginger        | 623             | 598           | 1,691      | 323            | 316           | 615.0      | 45                         | 255                      |
| 12  | Chili         | 20,301          | 19,219        | 52,537     | 3,400          | 3,160         | 7,465.2    | 5,604                      | 11,297                   |
| 13  | Rice          | 122,125         | 93,329        | 1,533,860  | 24,692         | 19,944        | 280,566.0  | 24,702                     | 72,731                   |
| 14  | Young coconut | 1,236           | 1,074         | 14,898     | 166            | 109           | 1,431.0    | 162                        | 908                      |
| 15  | Long Kong     | 16,980          | 12,123        | 118,470    | 10,929         | 6,828         | 72,401.3   | 2,136                      | 3,915                    |
| 16  | Pineapples    | 18,691          | 14,169        | 167,282    | 3,283          | 2,499         | 31,736.0   | 5,200                      | 10,208                   |
| 17  | Rambutan      | 5,820           | 5,251         | 59,015     | 2,033          | 1,862         | 9,430.0    | 1,991                      | 1,796                    |
| 18  | Coffee        | 13,167          | 14,358        | 201,270    | 3,932          | 3,555         | 593,885.5  | 4,374                      | 4,861                    |
| 19  | Groundnut     | 9,766           | 9,335         | 21,727     | 1,728          | 1,662         | 4,362.0    | 2,533                      | 5,505                    |

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|--------------|----------------------|-----------------|----------------|------------------|----------------|----------------|--------------------|----------------------------|--------------------------|
|              |                      | No. of farm     | No. of griwer  | Area (rai)       | No.of farm     | No. of grower  | Area (rai)         |                            |                          |
| 20           | Fresh soybean        | 3,138           | 1,890          | 6,239            | 954            | 9              | 3,735.5            | 455                        | 1,729                    |
| 21           | Tangerine            | 8,584           | 8,059          | 124,570          | 3,984          | 3,722          | 53,989.8           | 2,633                      | 1,967                    |
| 22           | Crucifers            | 2,635           | 2,013          | 7,753            | 520            | 431            | 1,645.0            | 799                        | 1,316                    |
| 23           | Legumes              | 939             | 885            | 2,624            | 212            | 169            | 450.0              | 266                        | 461                      |
| 24           | Chilies and Tomatoes | 4,542           | 4,357          | 12,642           | 742            | 635            | 3,065.7            | 731                        | 3,069                    |
| 25           | Cucumbers            | 2,046           | 1,721          | 11,348           | 519            | 442            | 1,898.0            | 350                        | 1,177                    |
| 26           | Herbs                | 4,958           | 4,042          | 16,565           | 1,746          | 1,385          | 4,494.9            | 1,061                      | 2,151                    |
| 27           | Sweet corn           | 7,375           | 3,743          | 24,788           | 1,287          | 202            | 5,493.5            | 386                        | 5,702                    |
| 28           | Banana               | 4,107           | 3,444          | 24,273           | 1,975          | 1,626          | 11,285.0           | 185                        | 1,947                    |
| 29           | Misc.                | 15,282          | 9,643          | 99,737           | 4,814          | 2,498          | 17,095.8           | 5,229                      | 5,239                    |
| <b>Total</b> |                      | <b>501,663</b>  | <b>407,034</b> | <b>4,222,885</b> | <b>204,559</b> | <b>162,854</b> | <b>2,110,341.9</b> | <b>116,674</b>             | <b>180,430</b>           |

Source:Information compiled from Office Agricultural Research and Development, Region 1-8, by TOSSC.