

CLEAN FARMING – A GOOD CHOICE TO ENHANCE THE EFFICIENCY OF CASHEW PRODUCTS

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ABSTRACT

Since 2006, Vietnam has surpassed India and Brazil to become the largest cashew nut exporter in the world with the annual yield ranging from 150,000 to 177,000 tonnes. In addition to remarkable achievements, there are still many difficulties, i.e. low productivity, poor processing technology and the source of raw materials, lack of brand names, and so on. By this study, we deal with the implementation of Good Agriculture Practice (GAP) in cashew production in Bình Phước Province, where some producers were awarded the certification by Fair-Trade Labeling Organization International (FLO) - an organization established by 24 developed countries and headquartered in Netherland, and propose some

advices on the implementation of GAP to increase income and profit of producers.

1. Introduction

The cashew tree (*Anacardium Occidentale* Lina) has been widely grown in Vietnam for a long time. Up to 2009, there has been approximately 400,000 hectares of cashew trees, which are widely grown in Eastern South Vietnam, Central Highlands, and coastal Central Vietnam, and the largest plantations of cashew are found in provinces of Bình Phước, Đồng Nai, Đắk Lak, Đắk Nông, Bình Thuận, Gia Lai and Bình Định.

The production of Vietnam cashew has been on the up and up since 2006 and overcome India to become the largest exporter of cashew in the world.

Table 1: The development of cashew sector in Vietnam in 1990-2009

| Year | Area (ha) | Domestic cashew output (tonnes) | Imported raw cashew (tonnes) | Processed cashew (tonnes) | Exported cashew (tonnes) | Export value (US\$1,000) |
|------|-----------|---------------------------------|------------------------------|---------------------------|--------------------------|--------------------------|
| 1990 | - | 28 | - | 27 | 0.286 | 14 |
| 1994 | - | 90 | - | 40 | 9.53 | 75 |
| 1996 | 200 | 110 | - | 110 | 23.8 | 110 |
| 1999 | 210 | 100 | 20 | 120 | 28 | 164 |
| 2002 | 250 | 220 | 50 | 270 | 63 | 214 |
| 2005 | 340 | 320 | 120 | 440 | 117 | 478 |
| 2006 | 345 | 340 | 190 | 530 | 127 | 504 |
| 2007 | 350 | 350 | 230 | 580 | 152 | 650 |
| 2008 | 421 | 349 | 250 | 599 | 167 | 920 |
| 2009 | 421 | 350 | 250 | 600 | 170 | 850 |

Source: Vinacas

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In 2010, Vietnam's cashew sector would do the best to export from 170,000 to 180,000 tonnes. Besides, in order to polish the public image of Vietnam and the brand name of its cashew, the Government did permit the Bình Phước Province to hold the first Festival of Vietnam's Cashew in Đồng Xoài Town from March 20 to March 23, 2010.

However, the Vietnam's cashew sector also faces a deluge of difficulties such as land zoning, seeds and seedlings, biological researches concerning cashew trees; policies supporting the alteration of plants, cashew growing techniques and technologies, agricultural extension programs, the training in clean farming to boost the productivity of cashew, and so on. Among them, to promote the clean cashew farming is the most difficult thing because farmers' perception is still restricted.

2. Implementation of clean farming in Vietnam and other countries

a. In several countries in the world:

Technical barriers in international trade are mainly set forth in the Agreement on Technical Barriers to Trade (TBT Agreement), and the Agreement on Application of Sanitary Phytosanitary Measures (SPS Agreement) by WTO, which forces exporters of farm products to make their exports appropriate to standards set by importing countries. Besides, by applying GAP into farming, the health of laborers, i.e. farmers, and the environment is secured. Each country can establish its own GAP on the ground of international standards. Up to now, there have been some common standards for farm management practice like USGAP of the USA and EUREPGAP created by several European supermarket chains and their major suppliers. Also, China has been employing ChinaGAP since April 2006. Japan has developed JGAP since April 2006. Some other countries in the Asia also have its own standards such the SALM system of Malaysia (Skim Amalan Ladang Baik Malaysia), the INDON GAP of Indonesia, VF GAP of Singapore, GAP-FV of the Philippines, QGAP of Thailand, and so on. In November 2005, ASEAN and Australia did build up a scheme of ASEANGAP, which is supposed to apply for ten countries in ASEAN. If a country would like to be a member of EUREPGAP, it must submit standards that satisfy EUREPGAP certification

scheme and be approved by the EUREPGAP secretariat.

b. In Vietnam:

To enhance the competitiveness of Vietnam's produces, the EU has held training programs with a view to 'assisting Vietnamese exporters to comply with commitments regarding TBT and SPS of WTO and the EU'. The EU-Vietnam MUTRAP III Project was officially held in Hà Nội, Huế and HCMC from June 18 to July 8, 2009 with five workshops concerning 'assisting Vietnamese exporters to comply with agreements on TBT and SPS of the EU'. The clean farming model has been executed in some localities and generated positive results as follows:

- Global GAP Certificate for Lò Rèn milk fruits from Tiền Giang Province:

Lò Rèn milk fruit has covered around 2,500ha of 13 communes in Châu Thành District of Tiền Giang Province, with the annual yield of over 30,000 tonnes. Since 2008, farmers have applied Global GAP to their production boosting the price of exported milk fruits. To meet this standard, farmers must comply with 230 technical regulations. Up till now, approximately 50ha of Lò Rèn milk fruit has been awarded Global GAP certificates and was acknowledged by the German Technical Collaboration in April 2007. A delegate of US experts, in March 2009, conducted a field trip to check the implementation of Global GAP in Vietnam and certified that this kind of fruit could be imported into the US on the condition that the packaging must be improved. The Global GAP certificate is just valid within a year as of the issuing date.

- Labeling dragon fruits from Bình Thuận Province with VIETGAP:

In the early 2009, many of large markets like China and Taiwan stopped importing dragon fruits of Vietnam because of poor quality control. On the brink of the shrinking market for this kind of fruit, Vietnam's Fruits and Vegetable Association (Vinafruit) along with the Bình Thuận Province examined and labeled dragon fruits with VIETGAP. In late 2009, more than 3,000ha of dragon fruits of 133 cooperatives were awarded the VIETGAP certificates; and in 2010, it is expected to expand the VIETGAP-certified area of dragon fruits in Bình Thuận Province. Accord-

ingly, the export of dragon fruits would be facilitated because the product origin may be clarified by means of zip code and bar code when necessary.

- Labeling rambutans from Chợ Lách District of Bến Tre Province with VIETGAP:

On Sept.16, 2009, the Department of Agriculture and Rural Development of Bến Tre Province in association with the People's Committee of Chợ Lách District awarded the Global GAP Certificate on the rambutan, which was conferred by the Swiss Ecological Research Institution to Võ Văn Hớn, a farmer of Phụng Đức B Hamlet, Phú Phụng Commune, Chợ Lách District. This certificate will be valid from April 2009 through April 2010. In the recent harvest, he exported around two tonnes of rambutan to Germany at the price of VND120,000 per kilo. Apparently, the Global GAP is such a passport for local produces to be sold globally at higher prices.

Via what we have stated so far, clean farming is such a breakthrough for fruits and vegetables from Vietnam to move into more demanding markets. Thanks to clean farming, farmers may polish their trademark and enhance the competitiveness of Vietnamese produces in the world market.

Besides, the husbandry of some fruits like mango, grapefruit, orange, cherry, and durian, etc. also follows the clean farming model, making Vietnamese produces a strong position in the world market and improving the profit of producers.

3. Research methodology

During this study, we mainly employ the empirical method, the synthetic method and the analytical method.

4. Results and discussion

In 2009, there is around 170,000ha of cashew tree in Bình Phước Province, accounting for 40% of the nationwide area of cashew and labeled the realm of Vietnam's cashew tree.

Table 2: Area of Vietnam's cashew in 2009

| Province/City | Area (ha) | Rank |
|------------------|-----------|------|
| An Giang | 941 | 18 |
| Bà Rịa –Vũng Tàu | 14 | 8 |
| Bình Dương | 6.646 | 11 |
| Bình Định | 16.704 | 7 |
| Bình Phước | 169.526 | 1 |
| Bình Thuận | 28.5 | 4 |
| Đắk Lắk | 37.628 | 3 |
| Đắk Nông | 22.876 | 5 |
| Đồng Nai | 56.092 | 2 |
| Gia Lai | 21.412 | 6 |
| HCMC | 512 | 19 |
| Khánh Hoà | 6.9 | 10 |
| Kiên Giang | 1.305 | 17 |
| Kon Tum | 308 | 20 |
| Lâm Đồng | 11.705 | 9 |
| Long An | 21 | 23 |
| Ninh Thuận | 4.92 | 12 |
| Phú Yên | 4.05 | 13 |
| Quảng Nam | 1.377 | 16 |
| Quảng Ngãi | 2.84 | 15 |
| Quảng Trị | 80 | 22 |
| Tây Ninh | 3.774 | 14 |
| Trà Vinh | 200 | 21 |
| Total | 412.317 | |

Source: Ministry of Agriculture and Rural Development

By employing technical advances in production of cashew, the annual average productivity increased by 1,5 tonnes per ha in 2008 compared with 0.4 tonnes per ha in 2000. This figure can even reach 2.5 tonnes per ha or 3 tonnes per ha. If we would like to enhance the value, we need to research on the new strains of cashew with higher productivity, execute the intensive and mixed cashew husbandry and employ the clean farming model, which is a foremost requirement for sustainable development of cashew sector.

We did have a research on the clean farming model of an association of farmers in Tiến Hưng Commune of Đồng Xoài Town, Bình Phước Province, namely the Group for Sustainable Development of Cashew Sector, which was awarded the FLO certificate and is represented by (Mr.) Vũ

Đức Bộ. His phone number is 0906305666.

This Group includes 48 households holding the total area of cashew plantations of around 300ha. After two years of learning and employing the

- With the high profit from the cashew tree, farmers can keep investing in this kind of plant instead of others, supporting the sustainable development of manufacturing sector.

Table 3: Expected revenue from exporting cashew in 2010

| Expected export volume (kg) | Vinacas (USD) | Expected revenue from clean cashew (US\$) | Difference | Notes |
|-----------------------------|---------------|--|-------------|----------------------------------|
| 170,000,000 | 1,000,000,000 | $170 \times 10^6 \times 7.5 = 1,275,000,000$ | 275,000,000 | US\$7.5 per kilo of clean cashew |

Source: Vietnam Cashew Association

model of provinces of Bình Thuận and Tiền Giang, they were awarded the FLO certificates for clean farming of cashew on Sept.10, 2009. This certificate is valid within five years as of the issuing date. This group, before that, had to spend €250 on the FLO application and some more €2,000 on the 3-year-long inspection. However, thanks to the FLO certificate, the yield of exported cashew reached some 25 tonnes with the price of US\$7.5 per kilo in late 2009 compared with the price of US\$4.9 per kilo of non-FLO-certified cashew in March 2010. Mr. Bộ states they had to spend around VND100m. on learning and executing the clean farming model. In early 2010, another group of farmers also applied this model to their farming. The FLO stipulated that the clean farming model must be executed in form of groups or cooperatives but not a private enterprise, he added. However, the point is that if you are not an enterprise with the legal status, you hardly borrow money from banks to pay for members in the harvest time. Thus, if we would like to develop this model, we need to deal with this matter at the best.

Benefits from clean cashew farming:

- The selling price rises to US\$7.5 per kilo compared US\$4.9 per kilo of non-FLO-certified cashew.
- It is possible to re-invest in the cashew sector and upgrade the technology since the revenue increases higher.
- The Vietnam cashew has a strong position in the world market and its trademark is polished up.
- Farmers can consolidate their market shares and expand to potential markets.

Table 4: Productivity evaluation

| No. | FLO-certified farming | Non-FLO-certified farming |
|-----|--|---|
| 1 | High selling price | Low selling price |
| 2 | The market share is maintained and expanded | The market share may be on the brink of shrinking and threatened by clean-farmed produces |
| 3 | The production is maintained by the high profit | The production may be shaky when the revenue cannot cover the overheads |
| 4 | It supports the sustainable development | The produces will be gradually replaced by clean-farmed ones |
| 5 | It is the safe and sound mode of investment in the world | It is restricted by the TBT of importers |

5. Conclusion and proposal

a. Conclusion:

In addition to increasing the export volume, if we would like to boost the export value of Vietnam cashew, it is a must to enhance its quality with a view to bringing in a healthy profit, fortifying the existing market share, expanding to potential markets and improving the competitiveness of Vietnam's produces. The Technical Barriers to Trade like EUREPGAP or Global GAP, to the best of our knowledge, are just requirements for clean farming and for the sake of consumers. It is such a useful tool to restrict low-quality produces, which may cause bad effect on the environment; and to bring in the exclusiveness and a big profit for producers. In the event that Vietnam would like to

consolidate its first-rank position in cashew production in the world and the competitiveness of Vietnam Cashew, clean farming model is the foremost requirement.

Table 5: The market share of Vietnam cashew (%)

| Year | 2000 | 2003 | 2005 | 2007 | 2008 | 2009 |
|--------|------|------|------|------|------|------|
| China | 32 | 20 | 22 | 18 | 20 | 20 |
| USA | 18 | 33 | 41 | 32 | 25 | 25 |
| EC | 25 | 31 | 20 | 22 | 35 | 30 |
| Others | 25 | 26 | 17 | 24 | 20 | 25 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |

Source: Vinacas

b. Proposals:

The clean farming forces farmers to keep a journal of the execution of GAP regulations, yet they have not got on well with these regulations and think them time-wasting and complicated. Thus, we need to sum up experience of execution of GAP regulations and propose a suitable farming model.

In recent years, price fluctuations have caused farmers a great deal of difficulties and they need to know the empirical results of a model prior to deciding to employ it or not. Therefore, we must propagate financial advantages of clean farming model and relevant fees as well as the export value of clean-farmed cashew.

Farming incentive programs must be carried out regularly to enable farmers to exchange their experience in clean farming model; encourage them to refer to specific books to broaden their knowledge.

A household itself cannot cover all phases of

the clean farming model. It must join groups or co-operatives with a view to assuring the yield of output and high profit for each member.

Farmers need to ask banks for a suitable lending mechanism supporting the cashew sector because after each harvest, their produces must be sold out so as for them to repay bank loans and prepare for the next crop. For example, the Government has instructed the purchase of rice from farmers.

Associations of cashew producers must enhance their operation and the belief of each member, enable members to approach advanced models in the world as well as improve the competitiveness of Vietnam's produces in the world market.

Local authorities must directly instruct the execution of clean farming model; improve the managing role for the success of the model; regularly check out and deal with hardships arising from the execution.

The clean-farmed produces should be advertised and marketed to tourism agencies, culinary training centers, companies producing candies and snacks for export, and so on■

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