



Policies on Promoting Good Agricultural Practices (GAP) in Order to Increase Quality and Food Safety in Vietnam

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INTRODUCTION

After participating in the WTO, agricultural products in Vietnam must meet the increasingly stricter commodity standards of importing countries. At the same time, safe food production and trading are an imperative requirement and also a concern of consumers and the whole community. For producers, this is both a social responsibility and a good trading of their products, increases their competitiveness in the market. This simultaneously ensures good production environment and maintains a sustainable agricultural production. In order to meet the above requirements and in accordance with the development trend, MARD has issued the Vietnamese Good Agricultural Practices (VietGAP) for safe fresh fruits and vegetables, safe fresh tea and safe pig raising, safe poultry, safe bees, safe dairy cows in Vietnam in 2008. VietGAP is a voluntary standard to guide producers to improve quality and ensure food safety (FS) on the basis of controlling hazards, and is compiled based on the criteria of AseanGAP, GlobalGAP, Freshcare aims to create favorable conditions for Vietnamese fresh vegetables and fruits to participate in the Southeast Asian market and the world, towards a sustainable agriculture. VietGAP gathers criteria for each product, product group to guide producers to apply and to ensure: Production technology, food safety, food traceability, environmental protection and good health. After that, MARD continued to promulgate the Vietnamese Good Agricultural Practices (VietGAP) for rice and coffee in 2010; VietGAP for safe pig, safe chickens in households and in aquaculture in 2011. After a period of implementation, MARD has issued decisions to amend and replace the VietGAP in cultivation, livestock and fisheries. Namely:

- Guidance on VietGAP in aquaculture (Decision No. 3824/QD-BNNTCTS dated September 6th, 2014).
- Good Animal Husbandry Practices (VietGAHP) for dairy cows, beef cattle, dairy goats, meat goats, pigs, chickens, ducks and bees (Decision No. 4653/QD-BNN-CN dated November 10th, 2015).
- Good Animal Husbandry Practices in households for pig and chicken breeding in households (Decision No. 2509 / QD-BNN-CN on June 22nd, 2016).
- TCVN 11892-1: 2017 - Good Agricultural Practices (VietGAP) for cultivation (Decision 2802/QD-BKHHCN dated October 17th, 2017).

According to the Decision No. 635/QD-TTg dated 30/05/2012 of the Prime Minister on approving the project "Improving the productivity and quality of products and goods of the agricultural sector by 2020". By 2020, 100% of centralized vegetables, fruits and tea areas are certified VietGAP (in the National Strategy for Food Safety in the period of 2011-2020 and a vision to 2030, the target by 2020 is to have 60% of vegetable and tea production area certified VietGAP), 40% of pig farms and 50% of poultry farms are certified VietGAHP. In order to achieve the target, the Prime Minister issued Decision 01/2012/QD-TTg on a number of policies to support the application of Good Agricultural Practices (GAP) in agriculture, forestry and fisheries. The support contents include: identifying concentrated production areas that are eligible for food safety; building and renovating infrastructure of concentrated production areas; training; partly supporting the certification cost.

In addition to VietGAP, there are other types of good agricultural practices (GAP) defined by International organizations that are implementing in Vietnam such as GlobalGAP, 4C, UTZ Certified, Rain Forest, and JGAP for export key products such as tea, coffee, cocoa, pepper, vegetables, etc. through Public-Private Partnership (PPP) projects, international enterprises and corporations supporting farmers to organize production, certify GAP and trade product. Over the past years, most provinces have mobilized and supported the production of agricultural products and aquatic products according to VietGAP standards. By the end of 2017, there were 1,406 certified VietGAP cultivation farms with an area of more than 18,200 ha (of which more than 3,443 ha of vegetables/937,300 ha, fruits more than 11,813 ha/total 923,900 ha, tea more 1,864 ha/total 129,300 ha, coffee was 100 ha and rice was more than 979.42 ha); about 500 aquaculture farms with an aquaculture area of 2,618 ha certified VietGAP and equivalent; over 26,000 livestock households and over 300 VietGAHP farms (accounting for 1.4% of farms total) (MARD, 2017).

According to the incomplete statistics of VietGAP certification organizations, by the end of 2018, there were nearly 1,900 cultivation farms with VietGAP certificates with an area of 81,500 ha, an increase of nearly 500 farms (63,300 ha) compared to 2017. This proves that the VietGAP certified area in cultivation increased rapidly in 2018. However, in order to achieve the goal set by the Government, it is necessary to implement measures to promote Good Agricultural Practices in the next year.

POSITION AND ROLE OF VIETGAP IN IMPROVING QUALITY AND FOOD SAFETY

For vegetables consumed in the domestic market, in addition to VietGAP standard, there is the safe vegetable standard for vegetables issued in Decision 67/1998 / QD-BNN-KHCN April 28th, 1998 on the temporary regulations on safe vegetable production (SV). In this "temporary" document, SV is understood to meet the minimum safety standards set by WHO and FAO. Specifically, SV must meet the requirements of soil quality, irrigation water, pesticide residues and microorganisms. To date, SV has been revised and expanded by Circular No. 59/2012/TT-BNNPTNT issued on November 9th, 2012 regulating safe vegetables, fruit and tea production management. Article 2 of the Circular explains that the term "SV" corresponds with the following cases:

- Vegetables meet national technical standards on food safety conditions (QCVN 01-132: 2013/BNNPTNT, issued by MARD according to Circular 07/2013/TT-BNNPTNT and be applied to manufacturing and processing establishments, except for small production farms).
- Or vegetables produced according to the safety certification process of provincial department of agriculture and rural development.
- Or vegetables that meet VietGAP standard or equivalent.

In addition to the VietGAP standard, organic standard is also considered as a food safety standard. Organic standard is a private standard built by the ADDA-VNFM network. ADDA-VNFM was established on the basis of a cooperation project between the Danish-Asian Agricultural Development Center (ADDA) and the Vietnam Farmers' Association (VNFM) in 2004. The purpose of the project is to bring organic agricultural production in Vietnam. Organic agriculture is a form of agricultural production that avoids or restricts the use of the majority of chemical inputs (fertilizers, agricultural chemicals, plant growth regulators, and additives for animal feed). Organic standard is also issued for many types of agricultural products. As for vegetables, organic vegetable production process is born on the basis of adaptation from standard production process of International Federation Organic Agriculture Movements (IFOAM).

The Government of Vietnam has recognized organic vegetables as SV and puts organic production into the Vietnamese standard system. Organic products are like VietGAP and RAT because it is a voluntary standard, it means that if producers choose whether or not to do it, the State would not force it. The legal document for organic production is Industry Standard No. 10-TCN602-2006 dated December 30th, 2006 issued by MARD, later is TCVN 11041-1: 2017; TCVN 11041-2: 2017 for organic farming issued under Decision No. 3883/QD-BKHCN dated December 29th, 2017.

It can be seen that VietGAP and organic farming are two voluntary standards, while SV is not required for small producers like farmers to apply. According to the provisions of Circular No. 51/2014/TT-BNNPTNT on conditions to ensure food safety and management methods for small initial production farms under the management of MARD (the small initial production farms are those that supply products to the market without a business registration certificate/enterprise registration certificate / investment certificate or has been granted a farm economic certificate/VietGAP) must sign a commitment and are responsible for fully complying with the contents committed to producing safe food, providing relevant information when signs of violations causing the loss of food safety and are

investigated by State management agencies (usually decentralized to commune People's Committees for implementation).

According to Mainguy (1989), food quality is separated into four different components: Safety, Health, Service and Satisfaction, which is also known as model 4S (in French). The safety Concept refers to protecting consumers from the dangers of the usage. Health relates to the nutrient supply capacity of the product. These two components can be measured by testing. In contrast, Service and Satisfaction are components that can only measure by the consumer sentiment. In particular, the author proposes the State to strictly manage the two elements of Safety and Health Nutrition, but left two factors of Service and Satisfaction for the private competition. On the basis of Mainguy's analysis, for vegetables, it is possible to put 3 standards: Safe vegetable (SV), VietGAP and Organic into the value scale from Safety as a foundation to Customer satisfaction to evaluate.

In other words, a product with good service and customer's high satisfaction must necessarily ensure safety. But on the contrary, safe products are not necessary to be products that have the remaining three elements. All four criteria are located on a minimum safety line (baseline) that stipulates the lowest food safety threshold under which food is not considered as safe.

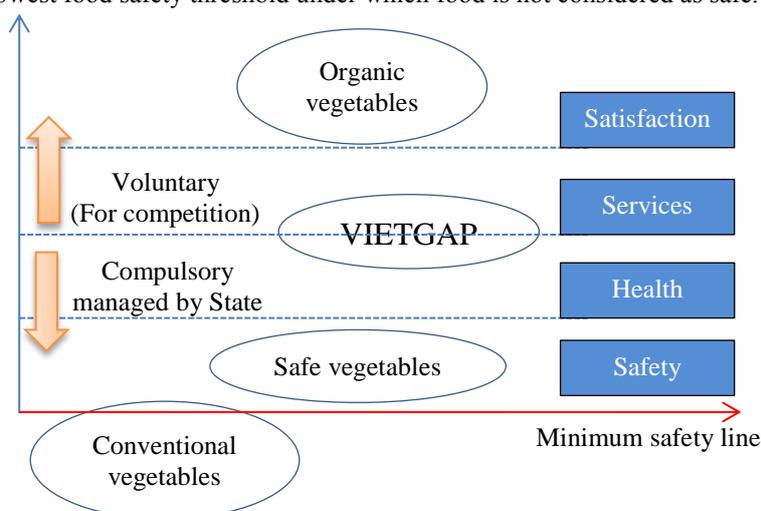


Figure 1: Classification of different certification standards according to quality components

According to the Figure 1, organic vegetables are of high quality standard, including the four quality components. Organic products are made to serve customers who need to eat natural, non-chemical agricultural products. Organic standard is a voluntary standard, producers choose to be organic, certified by a Certification Body (3rd party) to sell to customers with high purchasing power. Organic standard is therefore placed in the highest position. VietGAP has a lower position than Organic, at the boundary between Health and Safety, the others are Service and Satisfaction. It should be noted that the standard of organic vegetables stipulates that no fertilizers and chemical pesticides are used in the production, while VietGAP standard is allowed but must be below a threshold set by the State (MARD and Ministry of Health). In the integration trend, vegetables produced under VietGAP process as well as GlobalGAP aim at customer's service and satisfaction. For this reason VietGAP can be considered as a voluntary quality standard and is above the minimum safety standard to protect the consumer (ISO, 2010).

SV standard corresponds with safety standard, not quality standard, because it only ensures minimum conditions for consumer health. SV regulations comply with Vietnamese safety standards, regulates the maximum content of heavy metals in the soil, cleanliness of irrigation water and microbial residues and pesticides residues prescribed by FAO and WHO and proposed its application worldwide. In the lowest position, SV can completely become a compulsory standard for all vegetable producers in Vietnam in the near future. The most prominent issue drawn from this observation table is that traditional vegetables (i.e regular vegetables) are mainly produced by small-scale farmers under a commitment of the safe food production. This facilitates small-scale production farms not to register and be certified after meeting the conditions of food safety.

But the wrong side is that they are not under pressure to change the conditions and production methods, especially since the State management is still limited due to lack of manpower, facilities, budget and undecided implementation.

For fruits, tea, pig, poultry, seafood and other products consumed domestically, the system of standards, regulations and management regulations are also set up similarly to vegetables.

For export markets, depending on each market and each product, Vietnamese agricultural products must meet different standards. As for fresh fruits and vegetables exported to the US, Japan, Australia and New Zealand, must have VietGAP certification, while the EU requires GlobalGAP. For fish, European consumers require GlobalGAP certified products and are now particularly interested in ASC labeling standard such as the Netherlands, Germany, and Switzerland, etc. The US market is applying BAP. In addition, many markets don't require products to achieve sustainable aquaculture certification such as Eastern Europe and Africa. Meanwhile, 3 major shrimp import markets of Vietnam are the US, Japan and EU. They are not interested in VietGAP certification, including GlobalGAP, but only ASC, BAP or shrimp without antibiotics, microorganisms or other banned substances they will buy. For the Chinese market, there was a big change in the import policy in 2019 through tightening non-quota imports, increasing quota imports (reducing import tariffs on Vietnamese fruits and vegetables from 17% to 3-4%) to control quality and disease. In order to export officially, 8 types of Vietnamese fresh fruits are watermelon, dragon fruit, lychee, banana, longan, jackfruit, mango, rambutan must be packed appropriately and stamped with traceability and information about farms, packing facilities, etc. belong to the list officially announced by MARD to Chinese customs authorities. It can be seen that the Chinese market has changed, not as easy as before.

Although VietGAP has not been recognized much in the world market but it still has a certain role in agricultural production in Vietnam. Because VietGAP is not only a national standard for domestic products, but also a standard for evaluating foreign agricultural and fishery products that want to be imported into Vietnam. The benefit of VietGAP is to help change customs, habits, ways of production management, building product brands and creating a stable market for producers; create a source of quality raw materials for processing industry; reduce costs and time for checking material samples; affirm the brand of Vietnamese agricultural products; help consumers use food safety quality products and is an intermediate step to apply higher standards such as GlobalGAP.

FACTORS TO PROMOTE AND HINDER THE APPLICATION OF VietGAP

Motivating factors

(1) According to the results of consumer surveys in recent years, food safety is always a factor that consumers are mostly interested in. The research results of the project "Improving the pork value chain to allow small producers to meet consumer demand" in 2010 showed that food safety and hygiene are the most important factors when buying pork (34% of respondents), followed by prices (22%), habits (19%) and freshness (14%) (CIRAD, 2011). Meanwhile, very few consumers are interested in the percentage of fat (4%) and pork origin (2%). Branding, packaging and pig race are three factors that do not affect consumers' decision to buy pork. The data collected from a representative sample of 2,000 urban consumer households in four cities of Vietnam: Ho Chi Minh City, Hanoi City, Lao Cai City and Son La City from December 2016 to March 2017 showed that the most important level of products was "Safety Certification", followed by "Organic Products" and "VietGAP Products". On average, 50% of consumers bought products with "Safety Certification" and less than 30% of them purchased products with "Organic" and "VietGAP" certificates. According to the survey of polls of high quality Vietnamese goods in 2018, 62% of consumers were concerned about using banned substances; raw materials; unhygienic production processes; residues of toxic chemicals in food, fresh agricultural products, confectionery and beverages (higher than concerns about counterfeit goods or changing the expiry date) and 71-87% of consumers choose to buy based on food safety and hygiene factor. According to Nielsen's survey, two factors: choosing to buy healthy products and choosing organic and natural products are the highest choice of consumers (77%). Thus, domestic consumption trends will be associated with safety criteria, ensuring production process in the coming years.

(2) Free trade agreements such as ATIGA, CPTPP, etc create conditions for agricultural products of the participating countries to be produced with higher standards, with good quality and lower prices (especially from ASEAN countries) exported into Vietnam market. This requires local producers to change production methods towards applying standards, building brands and improving production efficiency.

(3) The requirements of the export market are increasingly strict (quality of food safety, traceability, quarantine, environment, etc) requires Vietnam's agricultural production to change to meet these requirements.

(4) In the provinces and cities, there are VietGAP production models in the value chain with high efficiency, attracting the participation of enterprises as well as farmer organizations such as cooperatives, THT, professional associations.

(5) Policy of State support under Decision 01/2012/QĐ-TTg on facilitating organizations, individuals,

households of agricultural, aquaculture and forestry safe products to apply VietGAP standard.

(6) Requirements for disease control in the country (such as African pig cholera) require domestic producers to well implement the epidemic prevention and control measures such as building safe and disease-free breeding areas with VietGHAP.

(7) The development of science and technology, especially digital technology and Internet of Things (IoT) helps to improve management efficiency and traceability in VietGAP standard.

Interfering factors

(1) Participating in agricultural production in Vietnam is mainly small-scale farmers who follow habits, are afraid of obeying regulations and standards; afraid to apply the new methods; afraid to publicize, share information, actual report on their production. At the same time, they inherently lack many things such as lack of vision, lack of confidence, lack of capital, lack of technology, lack of markets, etc. Therefore, farmers often don't voluntarily and actively apply VietGAP but rely on support of programs, projects, businesses, etc. When funding ends, it is also time to stop the expense.

(2) The guidance of VietGAP as an independent solution of food safety management mainly focused on training of producers, not in synchronization with HACCP in the whole chain, so the final products delivered to consumers don't guarantee food safety. Especially, consumers who have not trusted VietGAP and the VietGAP certification system and are willing to pay a higher price. Thus VietGAP has not really become a consumer's demand.

(3) VietGAP certification is not feasible for small-scale farmers, high certification costs are difficult and causes of low VietGAP expansion in term of area, while the number of small farmers participating in cooperatives certified VietGAP is still limited. There is a lack of guidelines for monitoring, researching and analyzing risks throughout the chain to determine critical control points and appropriate control methods in line with production and socio-economic situation of localities.

(4) Due to the widespread and lack of concentration, it is difficult for investments in science and technology and specialization in food safety management to come in. The risk assessment does not have cooperation with units, scientists, institutes, food safety experts, technology, epidemiology. Currently, there are many projects building many models of food safety management, but these are in incomplete institutional environment, and have lack of supervision to distinguish the good and the bad, and the models are not sustainable. The force of specialized staff in quality management is still thin, they are part-time staff in many units, especially those officials involved in food safety at the Sub-Department of Animal Health and Plant Protection Department. There is not a system of title standards as a basis for recruiting and training staff in the field of food safety management. Training and retraining of professional skills on food safety are not yet methodical and focused. There is not a specialized training system on food safety management.

(5) Investment strategies for food safety management in localities are not synchronized, related to food safety awareness. Investments in communication, raising social awareness and publicity and transparency of food safety information are lacking and weak. The traceability method which is suitable for small farmers have not yet been implemented so the food safety monitoring system that is being built are not yet effective. Communication on food safety management approach and monitoring system has not been implemented, thus limiting the ability to participate in monitoring through bad information transparency of social actors.

SOLUTIONS TO PROMOTE THE APPLICATION OF GOOD AGRICULTURAL PRACTICES (GAP)

After more than 10 years of implementation, VietGAP has shown that this is the right direction for sustainable agricultural production, beneficial to society and producers, for export processing enterprises and ultimately the most important isits being beneficial to consumers. VietGAP is necessary because each country needs its own standard as a legal basis for quality management, food safety and sustainable production. Let VietGAP be widely applied, we propose the following solutions:

(1)For the domestic market, GAP is a voluntary standard for producers, but needs to become a demand of safe products consumers, thus creating GAP market mechanism, independent of state support. Communication and training on GAP for farmer households, cooperatives, enterprises and consumers are very important. The Ministry of Agriculture and Rural Development cooperates with the Vietnam Consumer Protection Association and mass organizations to strengthen communication and raise awareness of society on food safety in general and VietGAP in particular, especially in the framework of New Rural Program.

(2)There is a need to promote the building and the development of the linkage model according

to the GAP value chain with the participation of enterprises and cooperatives/cooperatives/Professional associations representing small farmers to ensure safe food chains.

(3) Strengthen the inspection and supervision of certification bodies as well as the entire VietGAP certification process implemented by the certification bodies and fine fraud organizations and individuals, especially for organizations and individuals joining in exporting value chains because when a shipment is assessed as a failure by the importing country, the rate of enterprises inspected will increase to 50%, even 100% (instead of just 5% normally). This not only damages the actors in the value chain but also affects the reputation of Vietnamese agricultural products.

(4) The Ministry of Agriculture and Rural Development and the ministries regularly publicize and disclose information on food safety and VietGAP for consumers to participate in the monitoring system.

(5) The State should strengthen the inspection and supervision closely from production, distribution on the market so that all organizations and individuals involving in the production of vegetables and other agricultural products must ensure State safety regulations, regardless of whether these entities are small farmers or business establishments. At the same time, it is necessary to strengthen the accumulation and exchange of plots, formulate policies to develop agricultural land markets for land accumulation and support the development of cooperatives/farmer groups/professional associations. Thus, the legal documents relating to production standards and norms as well as quality control and supervision can be implemented in a large scale reality.

(6) Negotiating with importing countries and international organizations for mutual or partial recognition, as a basis for revising and supplementing the contents of VietGAP standard to be recognized in the international market. .

(7) It is necessary to supplement the criteria applied according to the quality standards of consumers such as GAP in criterion 17th on Environment and food safety in New Rural criteria. The new rural commune in the future must be a place where farmers have the skills and good awareness of safe food production according to GAP.

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