

INTRODUCTION

The project "Strengthening the Capacities for the field of Management of Vietnam's Crop Production Sector for Improving the Productivity and Quality of Crop's Product in Vietnam" implemented by Department of Crop Production, Ministry of Agriculture and Rural Development, with funding from JICA and have been carried out from July 2010 to December 2013.

Project area included 06 Northern provinces, with 03 pilot provinces of Hung Yen, Ha Nam, Quang Ninh and 03 semi-pilot provinces as Thai Binh, Hoa Binh and Hai Phong.

Through the activities of Project, the capacity of management in the field of safe crop production from DCP to the local of project site has been improved.

Awareness of food safety and hygiene of manager, technical staffs and farmers in particular in project area has been enhanced

To promote good agricultural practices (GAP) in crop production, a simple GAP standards (known as Base GAP) was built based on technical initiatives in Japan, with the the experience on implementing GAP, due to JICA expert working on safe crop component proposal introduced in the project area.

BasicGAP had made with the viewpoint: simple, saving, active in practice, can produce safe products in accordance with qualifications and conditions of the majority of Vietnamese farmers.

After three years of implementation, most of the technical staff, the pilot farmers have changed their perceptions about crop production and can do diary field notes, keeping record and produce crops follow GAP.

Appling Basic GAP in crop production, farmers have saved production inputs, obtain higher economic efficiency and the most important thing is that they are successful on safe crop production

To promote agricultural production, ensure food safety, good agricultural practices (GAP) should be deployed, widely application.

With the results of the project have been achieved, with the comments from Department of Crop Production, other units, local that implementing project and with the recommendations of JICA experts working for project, we would like to introduce the booklet "Basic GAP Manual" to you

Using the "Basic GAP Manual" effectively for you is the valuable encouragement to us.

DEPUTY DIRECTOR GENERAL OF DCP
PROJECT DIRECTOR

Tran Xuan Dinh

PURPOSE

BACKGROUND

To ensure food safety for consumers from both at home and abroad through the provision of agricultural products with good quality, not contaminated by chemicals and harmful microorganisms and so on ...has become an urgent issue in Vietnam in recent years. Propaganda, recommendations, management, production organization towards improving yields, product quality has always been considered as key tasks.

Vegetables and fruits are main kinds of crops that receive great concern to enhance food safety. Total area of vegetables production in Vietnam from 2010 to now has reached about 800 thousand ha per year, with an average productivity of 16-17 tons / ha, the total output of 13,000 tons, in which around 10-15% is for export, and about 85 - 90% for domestic consumption.

In Vietnam, vegetable production is conducted scatteredly on a small scale and fragmented (from 500 - 6000m² / households). Farmers kept their own traditional production habits. Therefore, it is difficult to transfer new technological advances, particularly applying VietGAP standards.

Many programs and projects for the development of safe crop production have been deployed and obtained certain results. However, implementation of VietGAP is still facing difficulties. To promote crop production and ensure food safety, good agricultural practices (GAP) should be widely applied.

In this context,, the project “Strengthening the capacities for the field of Management of Vietnam’s Crop Production Sector for Improving the Productivity and Quality of Crop’s Product in Vietnam” have built Basic GAP based on main points of VietGAP for applying in the project’ s target provinces.

THE PURPOSE OF “BASIC GAP MANUAL”

- To disseminate basic knowledge about good agricultural practice (GAP);
- To help producers approach with good agricultural practice (GAP) easily;
- To provide information on effective implementation Basic GAP at the project area;
- To share the experiences in the field of organizing safe crop production;
- To raise awareness about food safety and hygiene.

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I. INTRODUCTION OF BASIC GAP

1. Why introduce Basic GAP?

- Applying GAP in safe crop production has been global trend. In fact, there have been many different levels of GAP, which applied in production. However, applying high level GAP(s) require producers to have big initial investment. Therefore, it is possible to step up to apply certification GAP such as Viet GAP from Basic GAP according to the production condition of the zone (body), and target of the market.

Therefore, it was introduced Basic GAP which many farmers can apply

2. Content of Basic GAP

2.1. Control points and check list

- Basic GAP extracted the important portion (26 control points) about safety from Viet GAP, and aimed at simplification keeping up that safe vegetables are producible.
- All of the practice related safety such as checking control points, keeping record, checking safety of the area, and internal audit are in accordance with Viet GAP, and it is keeping compatibility.

2.2. Structure

◆ Record of the production process (For farmer)

- Form of record keeping : Binding 3 forms in one notebook.
- Contents :
 1. Record of cultivation about spray chemicals and apply fertilizer etc.
 2. Record of buying and using of materials such as agricultural chemicals and fertilizer
 3. Record of harvesting and selling of the products

◆ Record of the farm management (For manager of the group such as leader of agricultural cooperative)

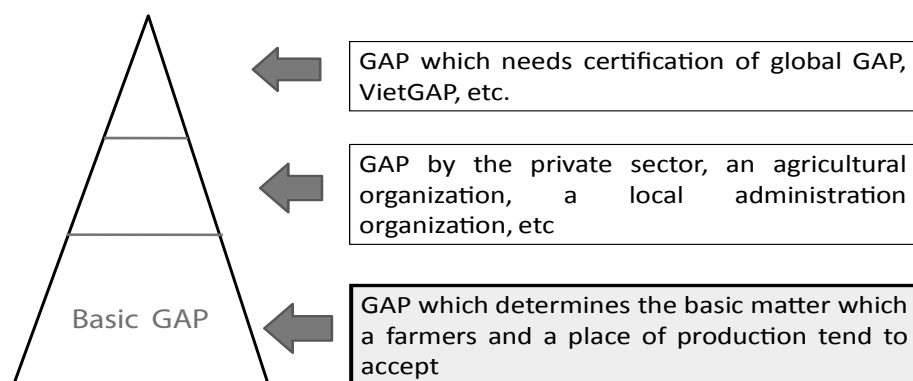
- Form of record keeping : Binding 5 forms in one notebook.
- Contents :
 1. Record about the safety condition of production area (analysis soil and irrigation water, processing facility etc.).
 2. Record about production management of the area, structure of the production group (cooperative) and keeping results of crop/annual internal audit.

3. Record about management of input material quality (purchasing production materials in the group/cooperative).
4. Record providing or selling production materials to the farmers.
5. Record of training technical staffs and farmers.

2.3. Advantages of Basic GAP

- Easy to apply for many farmers
- Farmer can carry out continuously.
- Can manage quality of agriculture materials
- Can produce safe products
- Can reduce production cost, bring economic effectiveness
- Can have traceability so can obtain reliance from customers; producers have responsibility about their product quality
- Have system of internal check so it can prevent risk timely
- Applying Basic GAP helps farmers develop safe crop sustainably.

3. Definition of Basic GAP



Type of GAP and position of Basic GAP

4. Benefit of applying Basic GAP

The effect of Basic GAP application identified by practice of the model of the project

4.1. Basic GAP can be applied by a lot of producers

- ◆ Easy to practice safe crop production followed by cultivation standard.

- Basic GAP is simple and easy to understand, suitable for small-scale farmers.
- Applying Basic GAP in production do not ask for big investment
- Safe crop products can be produced by following cultivation standard.

4.2. Get economic efficiency

- ◆ Reduce production cost
 - The process of cultivation becomes clear by practice of keeping record. This can manage adequate amount of fertilizer to apply or spray times of chemicals, so it can reduce the production cost.
- ◆ Keep productivity of crop
 - Practice crop production following GAP can reduce production cost but still keep the same or higher productivity compared with normal production way.
- ◆ Improve products quality
 - By doing GAP with using fertilizer, pesticide in proper way, using more organic fertilizer, compost, therefore the products get higher quality, especially in hygiene and safety.

<Example of cost reduction>

Unit: Sao (360 m²), 1,000VND

Place	Hung Yen		Ha Nam		Quang Ninh	
	Kohlrabi	Tomato	Cabbage	Cai Ngot	Normal	GAP
Crop						
Type	Normal	GAP	Normal	GAP	Normal	GAP
Production cost ※	2,410	2,060	3,965	3,219	2,180	2,064
Compare	▲350		▲746		▲116	

※Production cost: Seed/Seedling, Fertilizer, Pesticide, Labor, Water, Land preparation

- ◆ Improve farm management
 - Production cost and income become clear by keeping record of production, harvesting and selling. This information can be used for the improvement of farm management.
- ◆ Use for production planning
 - Record can be reflected in the production plan for customer’s request or trend of consumption

4.3. Raise awareness

- ◆ Recognize and Promote GAP
 - The framework of process control is recognized of the efficiency of keeping record and increasing of safe crop production.
 - Increase concern about producers own health and environment by use of agricultural chemicals.

- ◆ Increase confidence for own products
- Producer who Practice GAP can show production process and able to sell with confidence to the safety and quality of their products.

II. IMPLEMENTATION PROCESS OF BASIC GAP

1. Production condition must be safe

- Soil, water for irrigation and washing products must be safe
- Have simple-processing area which can ensure the hygiene and safety
- Technical staff, farmers are trained about IPM, GAP, environment protection

2. Good production management

- Organize production under groups
- Manage the quality of input materials like fertilizer, pesticide, agriculture chemicals...
- Recording and keeping record of production management
- Internal audit
- Have meeting, discuss about plan, assign the tasks, have lesson learnt...

3. Good production practice

- Produce under the safe production process
- Good Agriculture Practice (Basic GAP)
 - + Use pesticide, fertilizer in proper way
 - + Do not use unknown-origin pesticide, agriculture chemicals
 - + Use more organic fertilizers, compost...
 - + Recording and keeping record.

4. Good harvesting and selling

- Ensure the PHI (Pre – harvesting Interval) when harvesting
- Wash products by clean water
- Contain products by clean containers
- Stick label for traceability

5. Protect health and environment

- Use proper work wear to protect the labor
- Collect and disposal the waste following regulations

III. PRACTICAL PROCESS

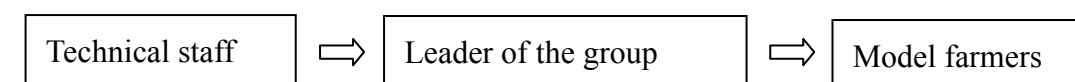
Step 1: Plan

1. Selection of production area

- Select the concentrated production areas with safe enough conditions about soil, irrigation and washing water in regulated standards
- Far from industrial zones, without any pollution

2. Selection of farmers participating in production group

- ◆ The number of model farmers in one model area is preferably 20 to 40 farmers.
- ◆ Each technical staff will be in charge of 20 farmers. Small number is suitable for coaching farmers intensively.
- ◆ Divide into group which has 5 to 10 household in one, the leader of each group has the role of co-ordination about the production in the group.
- ◆ The flow of the activity :



3. Disseminate knowledge about GAP

- ◆ Training for farmers, provide knowledge about GAP and practice GAP
- ◆ Make consensus among the farmers :
 - In order to ensure production of safe crop in the group, make mutual understanding about the contents and the methods of GAP which all the farmers practice, at the same time agrees on practice GAP.
 - Contents to make consensus
 - ✓ Contents and methods of practice BasicGAP
 - ✓ Plan of production and marketing
 - ✓ Management of the group about safe crop production

- ◆ Clarify role
 - Each organization clarify roles and supports the model activity

- ◆ The role of agricultural cooperative leader, production group, and extension staff
 - Instruct farmers to practice GAP.
 - Organize farmers training.
 - Coordinate the production of safe crop in the area.
 - Manage quality of inputs for production, and distribute/sell agricultural production materials to the farmers (at the cooperative shop).
 - Carry out internal audit.
 - Making production plan connected with selling, and planning of marketing.
- ◆ The role of model farmer of GAP practice
 - Willing to practice GAP
 - Have consensus and assign the task/responsibility for GAP implementation
 - Follow the instructions of leader/technical staff
 - Keep record the production process log
- ◆ The role of local government
 - Steering and coordinating with local programs, facilitate, support and encourage people to participate in;
 - Play an important role in information dissemination, communication and dissemination of knowledge.

Step 2: Do

1. Check the safe conditions of production area

- Check the safety of production area Select the production areas with enough safe conditions (identified already)
- If it has not been identified the safety of production area yet, it needs to take samples and check the safety of the soil and water, followed by the standard of VietGAP (see the table 1 – management of production condition – Record of production management)
- Check the surrounding condition to affect environment (such as industrial

waste) of cultivation area.

2. Prepare qualified agricultural input

- Agricultural cooperatives manage to supply with checking the quality of materials for production such as agricultural chemicals, fertilizer, pesticide and seed/seeding.
- Instruct farmers to use qualitative materials and record clearly the place of purchase (in case such farmers do not buy the materials at cooperative shop)

3. Implementation of safe crop production

- Set the number of plots to manage the production activities in the area
- Select good seed, seedling and suitable crop time
- Use fertilizer by proper way, time, amount..., do not use fresh fertilizer, use more compost
- Use pesticide in the allowed list for vegetables, apply proper 4-rules (proper kind of pesticide, dosage, time, way of using); or follow instruction on the label, package, or/and follow technical staff
- Ensure the PHI, use clean water for washing products, contain products in clean containers, use label for traceability

4. Practice of keeping record

- Record and keep the “Record of production practice” and “Record of production management” (follow the attached recording form)
- Fully record information about production and production management
- Record daily, keep the “recording form” at memorable place, convenient for use
- Keep the whole dossier for following cases:
 - + Check, evaluate (self-check, internal audit)
 - + Provide information for traceability
 - + Review production activities which recorded to have lesson learnt, help make plan for the next crop time

5. Check the quality of products

- Products under safe production process need to have samples analyzed periodically or random to check the safety
- Analyzed results are the base to confirm the safety of products as well as the proof to provide information about products to customers.
- Through the analyzed results, managers, producers can timely prevent the risk of unsafety and adjust production activities

6. Marketing activities

- Provide information of the products or the production area to customer. ※
- Make corner (shop) to sell the products by producers themselves. ※
- Expand the market by the contract etc.
- Build confidential relation with customer by holding events (visit the field or events exchange information with customer etc.)

※ 【Example picture】

<Giving information>

Binding tape printed contact address



<Selling corner>

Selling corner in the market



7. Dissemination of information, practice GAP

- In order to have stabilized market and price, it is important that consumer understand deeply of the safe crop and built reliance between producer and customer.
- Making characteristic products and branding are effective to have stability of market and advantageous. Therefore, it needs to disseminate actively the information about the products including practice GAP and process of the products.

Step 3: Check

1. Self check

- Producers themselves have to adjust production activities to be safe in steps of production, harvesting, simple-processing and consuming

- Producers are also persons who check, identify risk of pollution on their farms as well as neighbors' farms

2. Internal audit

- Members of internal audit group include head of cooperative, technical staff, group leader, farmer (established by cooperative)
- Contents to be audited: audit the contents in “Table of internal audit” (use the attached table)
- Flow of auditing:
 - ✓ Check the production process basing on check list
 - ✓ Check the record information of production, harvesting and consuming
 - ✓ Warning and identifying risk of pollution to prevent
- Keep the audited results
 - ✓ Keep the audited results of every household (in the table 2 – management of production at the area – Record of production management)
 - ✓ Use the audited results to instruct, adjust the production activities to ensure the safety
 - ✓ Use for traceability

Step 4: Action (Revision and improvement)

1. Revision and improvement

- Improve safe crop production activity toward next planting, based on the result of self-checking and internal audit.
- Improve the level of safe crop production by repeat the practice PDCA cycle.



PDCA cycle of GAP

IV. CHECKING THE PRACTICE OF BASIC GAP

(Practice production under requirement of 26 control points)

1. Evaluation, selection production areas

- ✓ Production areas are in line of the plan?
- ✓ Environmental condition is free of risks?



2. Land management

- ✓ Potential risks of contamination in soil of production area?



3. Fertilizer and other additives

- ✓ Fertilizer allowed using in Vietnam?
- ✓ Organic made and treated in a proper way?
- ✓ Record purchase and usage of fertilizer?



4. Water

- ✓ Water for irrigation and washing vegetables good enough quality?



5. Use of agricultural chemicals

- ✓ Have trained about the appropriate use of agricultural chemicals?
- ✓ Understand technology to prevent pest and disease effectively, such as IPM?
- ✓ Chemicals are allowed to use?
- ✓ Chemicals purchased from licensed shop?
- ✓ Using chemicals in accordance with the instruction on the label?
- ✓ Journals and trace record in using and handling chemicals established?
- ✓ Disposed chemicals and packaging is in accordance?



6. Harvest and post harvest treatment

- ✓ Harvesting have been kept enough time after spray?
- ✓ Processing, packaging and storage isolated from agricultural-chemicals storage warehouse etc.?
- ✓ Using clean water to wash vegetables?
- ✓ Tools harvesting, processing preservation of products are clean?



7. Management waste disposal

- ✓ Waste water, wastes have been managed in accordance?



8. Farmer (Employee)

- ✓ Have trained of labor protection, personal hygiene provided?

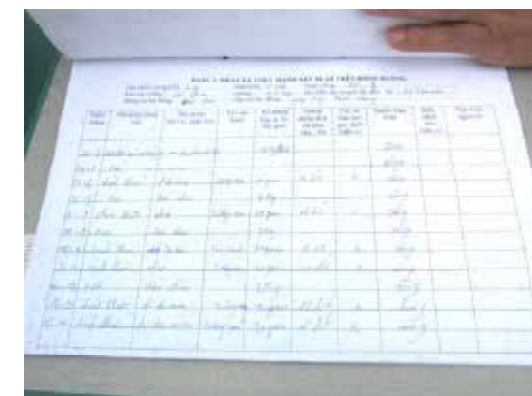
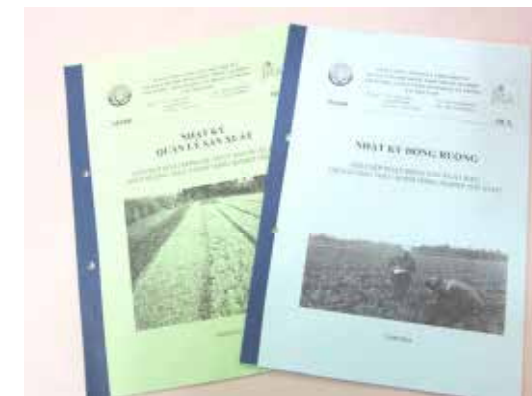


- ✓ Warning board in the production area is displayed?



9. Record keeping and traceability

- ✓ Production log recorded?
- ✓ Harvested log recorded?
- ✓ Selling of each plot recorded?
- ✓ Check recording and keeping record?



10. Internal inspection

- ✓ Internal inspection conducted?



Let's carry out trustworthy production!





**STRENGTHENING THE CAPACITIES FOR THE
FIELD OF MANAGEMENT OF VIETNAM'S CROP
PRODUCTION SECTOR FOR IMPROVING THE
PRODUCTIVITY AND QUALITY OF CROP'S
PRODUCTS IN VIETNAM**

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MARD



JICA

FIELD DIARY

PRODUCTION MANAGEMENT

RECORDING OF VEGETABLE PRODUCTION MANAGEMENT

TOWARD GOOD AGRICULTURAL PRACTICES (GAP)



JICA PROJECT – DEPARTMENT OF CROP PRODUCTION

GUIDANCE FOR USE

KEEPING RECORD ON CROP PRODUCTION MANAGEMENT

1. **Users:** Head of cooperatives / farmers Leader / technical staff in charge
2. **The reason why we have to keep records on crop production management**
To note and keep the action of crop production management in order to proven production process that has been followed by good agriculture practices (GAP).
 - For product traceability: based on diary of production management and keeping record that information about production conditions, the source of production inputs (pesticides, fertilizers ...), producers, production area, kind of products and then can identify the level of product safety, consumer information.
 - Keeping record of production management helps managers understand clearly their responsibilities and finding what is correct or incorrect behavior of producers, thereby together changing farming practices and production activities follow good agriculture practices process, developing an efficient, sustainable production and taking responsibility with community.
3. **Guidance for use:** keeping records of vegetable production activities include: providing general information (upper table) and management information: conditions of production area (1) activities of production in the area (2); buying agricultural supplies (3) provides agricultural supplies (4) Management of training and propaganda activities (5).

How to record: write the activities of management on crop production of cooperative / farmer groups in available forms:

- Table 1: recording, storing the results of soil, water analysis of production area, to confirm the production conditions in the cooperatives are safe enough. when detecting the risk of affecting production conditions must immediately to find a fix.
- Table 2: To number field plots of farmer's production; to manage production activities in production area of cooperative.

The results of internal audit (done by inspection team, 1-2 times / year) is stored in this table in order to monitor and regulate the behavior of members (farmers) in the group / cooperatives on time.

- Table 3: Co-operative shops or cooperatives must meet specified legal entity, business conditions, agricultural materials in accordance. Purchase of pesticides, fertilizer in the cooperative must be documented and keeping records.
- Table 4: to record selling / Supplying pesticides, fertilizers activities of cooperative for producers, who participate in safe crop production; recording information about buyers.
- Table 5: to record training activities, propaganda activities, providing knowledge of safe crop production: knowledge of the GAP, integrated pest management, organization of production, technological advances, to find specified for the market ...to record the comments and initiatives of farmers
- The checklist, internal audit: are used for evaluating the production process (1-2 time / season or year) done by inspection team (members are head of cooperatives or farmer group and producers) included: processing data from field diary documents, production recording and actual condition of production on the farm; analysis of results, lessons learned, planning, directing production for next years

How to keep records: Head of cooperatives / farmers group / technical staff in charge are responsible for guiding farmers to monitor the production process, management of keeping records of production.

- *Note: checklist and evaluation table (shortened from VietGAP): including 26 checkpoints are basically used to compare GAP during practice;*

CROP PRODUCTION MANAGEMENT DIARY - Version May 2013

PROJECT ON
STRENGTHENING THE CAPACITIES FOR THE FIELD OF MANAGEMENT
OF VIETNAM'S CROP PRODUCTION SECTOR FOR IMPROVING
THE PRODUCTIVITY AND QUALITY OF CROP'S PRODUCTS
IN VIETNAM

INFORMATION OF MANAGER

Cooperatives

Commune.....district.....province

Head of cooperative / farmer group's name.....

Full name Supervisors (if have)

Full names of technical staff in charge

Location of production

Season / Year

KEEPING RECORD ON CROP PRODUCTION MANAGEMENT
IT IS ACTIVITY OF GOOD AGRICULTURAL PRACTICES (GAP)
IN ORDER TO HAVE FOOD SAFETY AND PROTECTING ENVIRONMENT
YEAR 2013

TABLE 1- PRODUCTION CONDITION MANAGEMENT

Cooperatives commune.....Districtprovince

Total area under cultivation of vegetables:(m²/ sao / ha);

Water source: Environmental conditions: good enoughFailed

Date of samplingSamplerUnit of analysis

Actual situation of production conditions		Detecting risk and overcoming				
Conditions	Cause pollution	Current rating		Description of risk that observed	Corrective activities	Name of implementer
		Reach	Fail			
Soil	Heavy metal					
Water for irrigation	Heavy metal Microbiology					
Water for washing products (preliminary)	Heavy metal					
	Pesticides					
	Nitrate					
	Microbiology					

Notes:

- When detecting pollution risk of *contamination* must be *reported* immediately to find a fix.
- The limit of heavy metals in the soil: the National Technical Regulations: NTR 03: 2008/BTNMT
- The limit of heavy metals, harmful microorganisms in the water: the National Technical Regulation on the quality of water used for irrigation QCVN 39: 2011 BTNMT.
- The quality of water used for processing base on QCVN 02: 2009 BYT that is regulations of water quality

TABLE 2- PRODUCTION ACTIVITIES MANAGEMENT

Cooperatives communeDistrictProvince
 Total area of vegetables production(ha) Total farmers in co-operative.....Season/year.....
 Vegetable area in model side.....(ha); Total pilot farmers participating in the model
 Technical guidelines, new technology (if applied).....

N0	Field management		The result of Internal Inspection	
	Name of Household	Vegetable areas (m ²)	Date/ Contents	Current rating
1			Reach	Fail
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

Note: Where there are several groups of farmers involved in the production under the management of the cooperative, each group using a table; the result of internal evaluation in season / year (according to assessment checklist form) are kept in this table for keeping track of each household production.

TABLE 3- MANAGEMENT OF PRODUCTION INPUT (BUYING PESTICIDES, FERTILIZER, SEED)

Shop NameAddressStorage
 Code / Paper licensed to tradeFull name of the shop 's owner
 Head of cooperative 'name..... Supervisor (if any)

Date / Month / year	Name of Pesticide, Fertilizers, seed and others	Quantity (bottles, boxes, packages)	Units (g, kg, ml, liter)	Manufacturer / Distributor

Note: The individual may play into books (Record book for buying agricultural materials of cooperative)

TABLE 4- MANAGEMENT OF PRODUCTION INPUT (SALES /PROVIDE PESTICIDES, FERTILIZER,SEED)

Shop Name AddressStorage
 Code / Paper licensed to trade Full name of shop 's owner.....
 Head of cooperative 'nameSupervisor (if any)

Date / Month / year	Name of Pesticide, Fertilizers, seed and others	Quantity (bottles, boxes, packages)	Units (g, kg, ml, liter)	Name of Buyer

Note: The individual may play into books (Record book for selling / providing agricultural materials of cooperative)

TABLE 5- MANAGEMENT TRAINING OPERATIONS, PROPAGATION

Cooperativescommune.....District.....Province
 Head of cooperative ' nameTechnicians in charge

Date / Month / year	Training			Propaganda			
	Name of farmers (accompany with the list)	Content of training	Duration of training (days)	Certification (if have)	Communication materials	How farmers response to	The opinions of farmers

CHECKLIST OF INTERNAL AUDIT

(Used for internal evaluation in production of cooperative for 1-2 time/ year)

Information about producers / key people
 About evaluation team
 Location Date of evaluation

No	Figures	Requirements of Viet GAP (level)	requirements of Basic GAP (level)		Interpretation
			Reached	The assessment results not reached	
1	Field vegetable production is consistent with the local plan, government plan ?	A	A		
2	Vegetables production area has been analyzing samples of soil, water yet?	A	A		
3	It is safe enough compare with standards for soil and irrigation water yet?	A	A		
4	Do you use fertilizers in the list of permitted uses in Vietnam ?	A	A		
5	Use only organic fertilizer reactions using treated (decomposed) and keeping record ?	A	A		
6	Fully record and keeping records of purchase, USE fertilizers, additives yet?	A	A		
7	Only use water that meet current standards for irrigation and washing products?	A	A		
8	Had been trained in chemicals, pesticides and the way of use yet?	A	A		
9	Had been trained on integrated pest management (IPM, ICM) yet?	B	B		
10	Did you have application of integrated pest management (IPM, ICM) in production?	B	B		
11	Just buy chemicals, pesticides, follow the list of permitted uses?	A	A		
12	always buy fertilizer and pesticides at the cooperative store right?	B	B		
13	Only buy chemicals, pesticides, from licensed stores business	A	A		

14	Did you follow the instructions on the label when using pesticides, chemicals?	A	A		
15	Field diary notes and record keeping on using of chemical pesticides yet ?	A	A		
16	Have you work on warning signs in the production area, that just spray pesticides?	B	B		
17	There shell collecting containers of pesticides and chemicals in the proper places?	B	B		
18	There are collection and disposal pesticides waste in accordance ?	B	B		
19	Have you been provided knowledge of labor protection, personal hygiene yet ?	B	B		
20	The area of processing, packaging products isolated with warehouse containing substances yet?	A	A		
21	Do you use clean water (well water) to wash vegetables after harvesting ?	A	A		
22	The quality of water used for postharvest is correct quality standards ?	A	A		
23	Tools for harvesting, processing products ensure clean and safe?	A	A		
24	fully recorded on harvesting product yet ?	A	A		
25	There is a record and keeping record ò selling products yet?	A	A		
26	There are isolated, stopped selling and notify when the product is contaminated?	B	B		
27	There is internal evaluation on crop production at least once / year ?	A	A		
28	Do you think evaluating activities is necessary?				

Note: A is required to perform; B is the level that should be encouraged to perform . Depending on requirements, the specific conditions for establishment of test and evaluation (test group consisting of representatives of all stakeholders including management, technicians, producers, staff Cooperative or Local)

TABLE OF CHECKLIST
(shortened from VietGAP):
(Issued together with Decision No. 01 379/QĐ-BNN-KHCN 28th 2008 by MARD)

N0	Practice	Level	Mandatory implementation (A)	Promotion implementation (B)	Notes
	Evaluation and selection of production areas				
1	Areas suitable for production planning of state and localities for crop production is expected?	A	✓		
2	Has a risk assessment of chemical pollution, biological, physical, because the production can contaminate products yet?	A	✓		
	Land management				
3	Conducted annually the analysis and evaluation of the potential risks of chemical, biological, physical in soil for production area, that can contaminate products yet?	A			
	Fertilizers and additives				
4	Use of fertilizers on the list are allowed to do business in Vietnam, right?	A			
5	Use only organic fertilizers and treated with complete record of this organic fertilizer is that right?	A			
6	Recorded and saved to purchase records and the use of fertilizers and additives yet?	A			
	Water				
7	Water quality and water use for postharvest fruit and vegetable production has ensured by current standards?	A			
	Using chemicals				
8	Workers use manual or chemical have been trained yet?	A			
9	It measures apply integrated pest management (IPM) and integrated crop management (ICM) yet?	B			
10	Chemicals, plant protection chemicals, biological have been bought in national list that are permitted use?	A			

11	Having bought chemicals, plant protection chemicals, biological snail collected from licensed stores business?	B			
12	There are chemicals used in accordance with instructions on the label?	A			
13	Have you kept the record on using and handling chemicals yet?	A			
14	The destruction of chemical and packaging is done in accordance with the provisions of the State yet ?	A			
	Harvesting and post-harvest processing				
15	The harvested products have been kept enough time for isolation?	A			
16	The area processing, packaging and storage products have been isolated from the warehouse containing chemicals or other materials?	A			
17	Using clean water to wash the products after harvest have been done yet?	A			
18	The quality of water used for postharvest are safe enough as regulations yet?	A			
	Management and treatment Waste				
19	Wastewater, garbage is collected and processed in accordance to reduce risk of contamination to the employee and products yet?	A			
	Workers				
20	Employees have been trained in operating machinery, chemical use, safety and fully equipped labor protection yet?	A			
21	There were warning signs in vegetables and fruits production area when just sprayed chemicals yet?	B			
	Recording and keeping record, traceability and product recall				
22	Fully recorded harvesting and selling products yet ?	A			
23	There are internal checks, recording and keeping record yet?	A			
24	Specified the location of each plot for production yet?	A			
25	There are records of time selling products, the buyers name and address, and keep records for each kind of products when selling or transferring products ?	A			
	Internal Audit				
26	Conducted internal audits at least once per year yet?	A			
	Conducted internal audits at least once a year yet?				



**STRENGTHENING THE CAPACITIES FOR THE
FIELD OF MANAGEMENT OF VIETNAM'S CROP
PRODUCTION SECTOR FOR IMPROVING THE
PRODUCTIVITY AND QUALITY OF CROP'S
PRODUCTS IN VIETNAM**

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MARD



JICA

FIELD DIARY

RECORDING OF VEGETABLE PRODUCTION ACTIVITIES TOWARD GOOD AGRICULTURAL PRACTICES (GAP)



JICA PROJECT – DEPARTMENT OF CROP PRODUCTION

GUIDANCE FOR USE KEEPING RECORD ON CROP PRODUCTION

1. **Users:** farmers / producers
2. **The reason why we have to keep records on crop production**
 - To note and keep the action of crop production in the field every day in order to proven production process that has been followed by good agricultural practices (GAP).
 - For product traceability: based on field diary and record keeping can know the information about conditions of production area, producers, kind of products, how safe of products and the information of consumer, market.
 - Recorded and kept field diaries to help producers finding what is right and what is wrong in their activities on crop production, thereby changing farming practices in ways that are beneficial for production, health protection, submission of legal requirements and meeting customer expectations.
 - Helping producers have enough condition to confirm the safety of the products produced by themselves, finding customers and getting the opportunity to develop sustainable production and efficiency.
3. **Manual:** notes vegetable production activities include: providing General information (on the table); Diary Manufacturing Practice (1); Diary of buying agricultural supplies (2) and diary of harvesting, selling products (3).

How to record: recording production activities in available forms in book

 - Page for example to refer to the content recorded in Table 1.
 - Table 1: each vegetable separately recording a table, recording the daily of vegetables production in the field; recording all activities from start to plant to harvest of vegetables production in crops / season/ year.
 - Table 2: To record all purchases of agricultural inputs (buying fertilizers, pesticides, other additives) used in the production process (all kinds of crops will be shared on the same recording table)
 - Table 3: To record all harvesting and selling products activities in the production process (all kinds of crops will be shared on the same recording table)
 - The checklist table, internal audit: are used for evaluating the production process (1-2 time / season or year) done by inspection team (members are head of cooperatives or farmer group and producers)
 - **How to keep records:** farmers / producers to regularly record and store logs Manufacturing Practice (hanging on the wall, where seen daily for convenient use).
 - **Note:** checklist and evaluation table (shortened from VietGAP): including 26 checkpoints are basically used to compare GAP during practice; Based on the basic principles of this book, producers can split or detailing the content of recording his way for monitoring the production process to suit each specific condition.

FIELD DIARY - Version May 2013

PROJECT ON
STRENGTHENING THE CAPACITIES FOR THE FIELD OF MANAGEMENT
OF VIETNAM'S CROP PRODUCTION SECTOR FOR IMPROVING
THE PRODUCTIVITY AND QUALITY OF CROP'S PRODUCTS
IN VIETNAM

PRODUCERS

Cooperatives

Commune.....district.....province

Production unit / farmers/ farmer group

Name of farmers / producers

Location of production

Season / Year

KEEPING RECORD ON CROP PRODUCTION EVERY DAY
IT IS ACTIVITY OF GOOD AGRICULTURAL PRACTICES (GAP)
IN ORDER TO HAVE FOOD SAFETY AND PROTECTING ENVIRONMENT
YEAR 2013

EXAMPLE PAGE - PRODUCTION DIERY - PRACTICES IN THE FIELD

Name of plots (number): 01 Area: 180 m² Planted date: 05/09/2012
 Name of crop: cabbage; Varieties: KAKACROSS ; Intended harvest time: First: 24/11 Last: 5 / 12
 Protection: Self equipment (labor safety clothes, mask, gloves ...); throw bags in proper place: yes () no ()

Date	Activities	Name of pesticides and fertilizers	Name of disease	Quantity (kg, g, liter, ml, pack)	warning of using pesticides	Follow the guidance (x)	Detection risk	Doer
20/9	Fertilizing	Manure compost items		50 kg				Tran Thi My
23/9	Irrigation and fertilizer	Urea nitrogen		2 kg				Mỹ
3/10	Spraying pesticides	WATH	Deep Blue	1bottle/ 10ml	x	x	Besides using the rate 3 times	My
15/10	Fertilizing	Urea nitrogen		5 kg				
20/10	Spraying pesticides	Regent	Silk worms, beetles jump	6,0 gam	x	x	Plot No 3 have spray pesticides were harvested after 2 days	Toan (My ' son)
28/10	Fertilizing	Kali clorua		3 kg				Toan
5/11	Spraying pesticides	KARUBA	Deep Blue	2 1bottle/ 10mg		x		Toan

Note: Using the example table to know how to write the contents of Table 1, follow the instructions: Follow the instructions on the label under the guidance of technical staff. After using pesticides to plug warning signs. Mark (x) if you follow the instructions and signboards.

TABLE 1- PRODUCTION DIERY - PRACTICES IN THE FIELD

Name of plots (number): Area:..... m² Planted date:
 Name of crop: Varieties:.....; Intended harvest time: First: Last:
 Protection: Self equipment (labor safety clothes, mask, gloves ...); throw bags in proper place: yes () no ()

Date	Activities	Name of pesticides and fertilizers	Name of disease	Quantity (kg, g, liter, ml, pack)	warning of using pesticides	Follow the guidance (x)	Detection risk	Doer

Note: Using the example table to know how to write the contents of Table 1, follow the instructions: Follow the instructions on the label under the guidance of technical staff. After using pesticides to plug warning signs. Mark (x) if you follow the instructions and signboards.

TABLE 2- PRODUCTION DIERY- BUYING AGRICULTURAL SUPPLIES FOR PRODUCTION

Pesticide, fertilizer storage area.....

Days, months, years	Name of pesticides, fertilizers and seed	Quantity (kg, g, l, ml, bottles, packaging)	Price (VND / kg, liter, bottles, packaging)	Purchased at the cooperative store/own household, mark (x)	Purchased at other stores		Buyer / User
					Name	Address	

Note: store/ shop supplies of agricultural co-operatives have a business license and under the control of the specialized agencies.

TABLE 3- FIELD DIERY FOR HARVESTING AND SELLING PRODUCTS

Place of processing /storage
 Address of the regular retail (market)

Date of harvest / selling products	Harvesting		Quantity (kg or tree)	Price (VND/ kg, a tree)	Selling products			The risk / hazard Handling	Doer
	Crops	Name / number of fields			Isolation time (day)	Retail (marked x)	Wholesale for whom		

Note: This table is used for general products (vegetables) are harvested from different fields, Number of days of isolation: the number of days after the last spraying pesticides to the day of harvest, At the retail column and detect risk ... if done then just mark (x).