

FOOD SAFETY ON YOUR PLATE

Lessons from Ghana

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Introducing HortiFresh

Goal: A Sustainable & Internationally Competitive Fruit & Vegetable Sector that contributes to inclusive economic growth, food and nutrition security

Objectives

- A **Competitive & Innovative** Sector
- **Inclusive and Sustainable** Growth
- A **Conducive** Business Climate



Instruments for Engaging the Sector

- **Policy Support & Enabling Environment**
- Financial Support Services
- Technical assistance: Business Management & Agronomy
- Youth Employment, Social Inclusion & Nutrition
- Business Platforms & Events
- Trade Promotion & B2B
- Knowledge Sharing & Outreach

Pathways for Instruments

Competitive & Innovative High Value F&V Sector

- ❖ Financial support for F&V companies
- ❖ Agronomy Capacity Strengthening (MoFa AEAs, Agric Colleges, Private Agronomists)
- ❖ Trade Promotion (NL-GH-CIV)
- ❖ Fairs, Exhibitions, B2Bs both local and international participation
- ❖ Cluster development activities in 8 enclaves in GH & CIV



Inclusive & Sustainable Growth

- ❖ Supporting Youth-led initiatives
- ❖ Financial product for women-led businesses
- ❖ Access to Finance in Clusters with Fidelity Bank
- ❖ Solar Irrigation support for small to medium farmers
- ❖ Caveat for youth and gender inclusion in all activities/grants
- ❖ Sector Reports, Special Studies, Issue briefs, online (<http://www.hortifresh.org/reports/>)



Conducive Business Climate

- ❖ Platform Meetings & Thematic Roundtables
- ❖ **Policy Support (Food Safety TaskForce, EPA, FDA, PPRSD, Ghana Green Label)**
- ❖ Sustainability Plans (Hort. Dev. Authority, Ghana Horticulture Association)



State of Affairs...

Misuse of pesticides on the rise - Agric experts warn

Source: Ghana | Myjoyonline.com

Date: 04-09-2017 Time: 01:09:07:am

A study* of the regulatory landscape reveals that:

- Multiple agencies are involved in monitoring of food safety
- There is a lack of coordination
- Weak linkage with the private sector



Graphic Online

Consumption of raw fruits and vegetables. How safe are we?

Date: Mar - 14 - 2017 , 15:44 BY: Emelia Dery Category: Opinion



High chlorpyrifos levels on vegetables in Ghana

Revelations of high levels of pesticide residues on foodstuffs has led to an outcry over the inappropriate use of pesticides on vegetables cultivated in urban and peri-urban areas of Ghana. In 2006 a survey of 616 farmers from the Volta region of Ghana revealed inappropriate pesticide application practices. Residue analysis detected the presence of chlorpyrifos, DDT, cypermethrin, and aldrithion in shallots, with levels of chlorpyrifos exceeding the Codex maximum residue level in most samples. Daniel A. Kotey, Winfred Seth K. Gbewonyo and Kwame Afreh-Nuamah report on their findings.

Most vegetable farmers in Ghana (87%) use synthetic chemical pesticides to control pests and diseases on vegetables including a number of highly persistent organophosphorus (OP) pesticides. Some of these, such as lindane, endosulfan and DDT, are other restricted or even banned in Ghana. The lower cost of these older pesticides makes them attractive to poor farmers. They are readily available and lax regulations have allowed inappropriate application practices to develop, such as the mixing of two or more chemicals. Concerns have been raised about potential adverse effects of pesticide residues on human and environmental health. High levels of chlorpyrifos, for example, in vegetables, such as shallots, in Ghana, are estimated 4% of pesticides used on vegetables and pesticide residues are now found in water, soil and human body fluids such as breast milk.

A threat to exports

Sanitary maximum residue levels (MRLs) for pesticides in food and water have been defined in most countries and analysis of Ghana has become a requirement to export the cultivation of vegetables in Ghana. Residue analysis of vegetables in such situations and potentially can the rapidly growing export market. The majority of which is food rice (the fresh vegetables used in food are largely processed in most cases). It also has the potential to affect the cash crop export banana. For example, in 2006, a contingent of 200 banana tonnes of export banana from Ghana was rejected by Japan as a result of the excessive levels of pesticide residues found in the fruit. Residue analysis for chlorpyrifos have also been conducted on 10 samples of tomatoes grown in the Upper West Region of Ghana, and six seven samples of cabbage grown in the

Shallot cultivation

Shallots, a type of onion, are a minor crop in Ghana but a major crop in Aridiga, the coastal capital of the Ashu Traditional area, about 120km east of Accra, in the extreme South Eastern corner of the country. At least three shallot crops are grown each year and compared to other vegetables, in general they have relatively few severe insect pests. However, in the Aridiga area onion thrips (*Trialeurodes vaporariorum*) and their yellow leaf-miner, caterpillar (*Chloropneustes littoralis* Bond.) are widespread and are considered a serious threat to shallot cultivation.

Survey

A survey was conducted in the Ashu traditional area of the Keta district of the Volta Region of Ghana. It aimed to determine the sources, types, formulations, design and application frequency of pesticides to vegetables in this region. It also aimed to identify the levels of residues remaining on shallots and whether these exceeded Codex MRLs. Two vegetable cultivation zones were chosen as study sites: a general field (openly accessible) and a fenced field (semi-protected). The first site was located within approximately 100m of the road, the second was located along the Keta lagoon in the Ashu Traditional area. A total of 616 farmers were surveyed, all of whom were in active production and routinely applied pesticides to their crops. The survey was conducted from August-October 2006 with

Shallots, okra, pepper, tomatoes and okra are cultivated extensively in the area. 95% of farmers are men educated up to basic or secondary level with an average farm size of 0.13 ha and 0.17 ha in depression and hilly areas, respectively. Respondents had been cultivating vegetables for up to 11 years. Although they used hired labour on their farms, they generally applied pesticides themselves using hand operated CP-15 knapsack sprayers.

Pesticide choice

The chief factor influencing what pesticide type to use to control pests was efficacy (72% and 66% of respondents use depression and hilly areas, respectively) with other important factors being availability (15% of depression respondents) and level of safety (12% of hilly respondents).

Supply outlets and sources of information

Most pesticides were obtained from pesticide dealers, who supplied pesticides to 67% of depression area and 61% of hilly area respondents respectively. Extension agents (n=10) and private retailers (n=10) were (N=20) provided pesticides to some farmers (generally those with MFA). Information on pesticides and their use was obtained mainly from local farmers and extension agents. For example, while trained farmers received information to 15% (depression area) and 27% (hilly area) of respondents, extension agents provided information to 15% (hilly area) and 30% (depression area) of respondents.

Photo: Ghana Food and Agriculture (MFA), who provided local insights, as well as translation and interpretation of farmer responses. Shallots were selected at random from the farms of randomly selected farmers for residue analysis. Residues were extracted and analysed by gas chromatography.

Shallots from the area contained more chlorpyrifos than any other pesticide.

Photo: Ghana Food and Agriculture (MFA), who provided local insights, as well as translation and interpretation of farmer responses. Shallots were selected at random from the farms of randomly selected farmers for residue analysis. Residues were extracted and analysed by gas chromatography.

EPA warns of 'poisonous' fruits, vegetables on the market

Date: May 20, 2016 12:54pm



High chlorpyrifos levels on vegetables in Ghana

*Maden, E. van der, Glover-Tay, J., Koomen, I. (2014) Food Safety and Plant Health in Ghana - Analysis of the Sanitary and Phytosanitary Status of the Vegetable Sector

Wash fruits and vegetables with potable water and vinegar or salt before consumption

Food Safety Improvements Through HortiFresh

Food Safety Taskforce - A public private partnership streamlining food safety monitoring and enforcement



Your Well-being, Our Priority

The FDA and EPA – Active engagement on Food safety matters



EU Exports Taskforce - Liaising with stakeholders for requisite standards to be adhered to along the export chain

Integrating a comprehensive certification scheme within the F&V landscape



Exit Strategy - Establish a Horticulture Development Authority for sector coordinate and regulation



Opportunities for Scaling

- Getting more consumers to be aware of the Ghana Green label to create the demand pull and subscribers maintaining and attracting new market channels
- Food Safety Taskforce functioning beyond aid
- Establishing the formidable Horticulture Development Authority for efficient sector coordination and regulation



Lessons / Challenges

- A well functioning food safety system needs both public and private investment, in Ghana this is not (yet) the case
- There is a need for a suitable tracking & tracing system for the horticulture sector with its many smallholder growers and the diversity of crops
- Rolling out food safety standards to cover F&V for all segments of consumers remains a challenge
- Change does not happen overnight, it needs sustained dialogue and trust



Still to think about.....

Below a few alternatives for you to choose from:

- Private sector remains the driving force for change in food safety
- Food Safety standards for export market is adhered to because there's a robust inspection system.
- The domestic market is least likely to evolve with changing food safety trends
- Food safety systems designed in the high income countries do not always work in low and middle income countries
- Middle to high income earners are willing to pay more for safe food
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Thank You

