Can First-Tier Cities have First-Class Food?

A Study of the Vegetable “Shopping Baskets” of Beijing, Shanghai and Guangzhou

Summary

Greenpeace made a yearlong study in 2014 in the three first-tier cities of Beijing, Shanghai and Guangzhou on how their vegetables were sourced and grown, their traceability systems, and how their local governments were doing on managing their "Shopping Basket Programmes". Greenpeace also tested vegetable samples taken from these three cities and their suppliers for pesticide residues. The results clearly showed that Shanghai outperformed both Beijing and Guangzhou in all four respects.

1: Beijing, Shanghai, Guangzhou: Pesticide residues on vegetable samples

Between September and December 2014, Greenpeace collected 133 vegetable samples from the main vegetable suppliers to Beijing, Shanghai and Guangzhou. Of these, 54 of the samples came from suppliers and 79 were purchased in large wholesale markets and wet markets in the three cities. We sent the samples to a third-party certified laboratory to test for pesticide residues. We found that the samples from Shanghai had the least pesticide residues, whereas the samples from Beijing were the most seriously contaminated with a cocktail of pesticide residues. Some 40% of the samples showed more than five different kinds of pesticide residues. The most heavily contaminated were rapeseed, Indian lettuce, tomatoes, and cucumber. In Guangzhou, 34% of the samples showed pesticide residues at concentrations in excess of national limits. Red cowpeas bought from a wet market in Tangxia, Tianhe, Guangzhou, showed traces of pesticides carbofuran 26.5 times over the limit, omethoate 64 times over the limit, and leaf mustard seedling samples that showed traces of phorate 23 times over the limit and phoxim traces 15.8 times the limit.

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1 The Shopping Basket Programme is a government project to ensure the safety and security of a city’s food supply. It has been running since 1988.
2: Beijing, Shanghai, Guangzhou: Sourcing and production

At the start of 2014, Greenpeace investigated how Beijing, Shanghai and Guangzhou were sourcing their autumn and winter vegetables. Our study showed that approximately 70% of Beijing’s vegetables were sourced from outside the city; the two main source regions were Zhangbei in Hebei and Shouguang in Shandong. In Shanghai, 50% of the city’s vegetables (mostly green, leafy vegetables) came from the suburbs; of those vegetables sourced from outside the city, most came from Lanling in Shandong and Yancheng in Jiangsu. Most of Guangzhou’s vegetables were grown in Guangzhou itself: it was more than 90% self-sufficient in vegetables. These were mostly sourced from the two districts of Zengcheng and Conghua. Greenpeace was able to record and confirm the main sources of the vegetables for the three locations by using GPS trackers.

From our investigations on the ground of these three cities’ main vegetable suppliers, we discovered that producers supplying vegetables to Beijing and Guangzhou rely heavily on chemicals. In Shanghai, because the government has implemented policies to encourage ecological agriculture, production methods used in the city’s suburbs have improved significantly, and the use of pesticides and chemical fertilizers has fallen at the fastest rate in the whole country. Between 2007 and 2012, annual average pesticide use dropped 6.4%, while chemical fertilizer use fell 4.8%.

3: Beijing, Shanghai, Guangzhou vegetable traceability systems

Greenpeace compared the traceability systems adopted by Beijing, Shanghai and Guangzhou by requesting that the government release data under information disclosure regulations and onsite investigations. We found that Shanghai’s traceability system was relatively advanced, unlike those of Beijing and Guangzhou.

Shanghai started setting up a traceability system for tracking vegetables from the field to the market in 2010. Currently, 100% of the outdoor vegetables sold in certified vegetable markets in Shanghai can be traced back to where they are grown, and this information is available to the public. In response to a query, Beijing authorities said: "The establishment of a traceability system for Beijing is still in the exploratory phase." Aside from special circumstances, such as during the Beijing Olympics, there is still no good system in place to introduce a traceability system. Even though Guangzhou has said it is setting up a quality and safety traceability system for its vegetables, as of 2013, the number of pilot sites that are tracked by a traceability system was still limited to around 40 vegetable production bases/businesses. The traceability of their food distribution cycle is clearly lagging behind.
4: Beijing, Shanghai, Guangzhou ‘Shopping Basket’ regulations

Greenpeace collected information from publicly available sources, made requests for government information under information disclosure regulations and conducted onsite investigations in Beijing, Shanghai and Guangzhou in order to objectively evaluate and compare government policies on their "Shopping Basket Programmes", and how they were being implemented.

Shanghai monitors its vegetable producers through a database of growers and farms. This not only includes records of production bases and agricultural companies, but also those smallholder farmers who have an area greater than 2 mu. The government gives each smallholder farmer who maintains a record a subsidy of 50 Chinese yuan. Beijing and Guangzhou have only set up pilot product traceability systems and farm records only cover production bases and agricultural companies. Shanghai regulates pesticide use with a list of less toxic pesticides for recommended use, and physical and biological control measures are awarded subsidies or distributed for free. Beijing and Guangzhou only follow the national list of banned pesticides and, although they are implementing government policies, such as the Promotion of Green Technology (a programme that promotes physical and biological control of pests and diseases) and encouraging the safe use of pesticides and the proper use of fertilizing techniques, they are obviously behind in terms of subsidies and safety regulations. They need to introduce specific measures and an action plan to promote ecological farming.

On the other hand, none of the three cities was supporting ecological farming in the more rural regions that were supplying them with vegetables.

5: Conclusions and Recommendations

Shanghai outperforms Beijing and Guangzhou in terms of vegetable farming models, traceability systems and regulation at source. On the other hand, all three cities need to do more to support ecological agriculture for rural regions that are supplying vegetables to their cities. Greenpeace urges the governments of Beijing, Shanghai and Guangzhou to:

1: Recognize that there is a problem with the overuse of pesticides and fertilizers, and that there is a need to shift to ecological agriculture by reducing and finally phasing out the use of chemical pesticides and fertilizers. This could be achieved by 1) setting up ecological zones where all chemical pesticides and fertilizers are banned and gradually expanding these zones, and; 2) providing training, financial, and technical support to farmers to switch to ecological farming.

2: Improve traceability systems, ensure that growers at source are effectively regulated, and make information publicly available.
3: Give financial and technical support to ecological farming in those rural regions supplying vegetables to these cities.

4: Ensure that the traceability system is fully implemented in all regions supplying vegetables to the three cities.


4 From Shanghai City’s 12th Five-Year Plan in Modern Agriculture (上海市现代农业“十二五”规划) and Management practices for the operation and management of traceability systems for certified markets in Shanghai (上海市标准化菜市场追溯系统运行管理办法).


7 Guangzhou's Agricultural Bureau launched its Project to Promote the Use of Vegetable Quality Safety Traceability System in Guangzhou (广州市蔬菜产地质量安全追溯系统推广应用项目)，and set up a “management platform for agricultural product quality and safety in Guangzhou.” In 2013, 40 pilot sites had been set up in each districts' top vegetable production bases and primary businesses processing agricultural products.

8 As of December 8, 2014, the total number of records filled came to 6081 from the records of farms in the traceability system.