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Clerk to Subcommittee
(Attn.: Miss Mandy Poon)
Legislative Council Secretariat
(Email address: mpoon@legco.gov.hk)

25 May 2012

By Email

Dear Subcommittee,

**Proposed Exemption under the Genetically Modified Organisms
(Control of Release) Ordinance (Cap. 607)**

I would like to give my views on the proposed exemption of genetically modified (GM) papaya under the captioned ordinance.

GM papaya was developed in the early 1990s by inserting specific genes into its genome to confer resistance to papaya ringspot virus (PRSV), a serious pathogen that deforms fruit and eventually kills the trees. There is no other known solution to an epidemic of PRSV. Nowadays, many countries with papaya as a major crop are developing particular varieties of GM papaya with specific resistance to the local strains of PRSV.

GM papaya has a track record of safety since its initial development. Much research has been conducted on potential effects of GM papaya on the natural environment. Most researchers reject the concerns, as there is no evidence supporting various claims against GM papaya.

Papaya is a species of the Caricaceae family originated from eastern Central America. As no native species of Caricaceae exists locally, there is no risk of gene

flow from GM papaya to the native flora of Hong Kong. Thus, cross contamination of the native flora by GM papaya should not be an issue of concern. However, GM papaya could impact conventional papaya growers. A study reported 1% transgenes found in the seeds of conventional papaya when the trees were planted next to GM papaya, but no transgenes were found in seeds from an orchard that was 400 meters downwind. Organic farmers should keep this in mind.

It is a misunderstanding that non-GM crops have no harmful effects on the environment. Compared to the conventional papaya trees, the virus-resistant GM papaya does not require toxic pesticides and actually produces crops that are more environmentally friendly. It also makes agricultural production more efficient in terms of resources used. It shows that development of resistant crop cultivars can make an important contribution to sustainable crop protection.

To summarize, I wish to repeat my email message previously sent to Ms Mandy Poon before May 21, 2012: “Although I do not work on transgenic plants myself, I think that the benefits of GM papaya outweigh the potential harmful effects, which are unlikely to be significant on Hong Kong's environment. As Hong Kong does not have closely related wild plants to papaya, there is no risk of cross contamination. So far there is no evidence that GM papaya causes any health problem to human. The money and effort can be better spent on improving Hong Kong's environment than on the proposed eradication of papaya plants already grown in Hong Kong.”

Thank you for your attention.

Yours sincerely,



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Web site: <http://www.hku.hk/biosch/staff/ms/index.htm>

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