China exports biological and chemical risks*

China is exporting goods that contain too many dangerous chemicals, as well as beetles, mosquitoes and viruses. The situation will only get worse over the next years, warns **Wouter van der Weijden**.

The safety of Chinese products is under increasing scrutiny in the wake of numerous scares during the past few months, including melamine in animal feed, lead in toys and insecticides in mattresses. Importers and inspectors in the US and the EU are keeping a sharper eye on contaminants and Chinese exporters will probably reduce their use.

For melamine that can only be welcomed. But in the case of insecticides we should take care because they perform a valuable task: cleaning containers of any insects that could cause damage in the importing countries, especially some species of beetle that infest wooden pallets. These and other pests can cause far more damage than the toxic chemicals. The latter break down sooner or later and then no longer pose a threat. But exotic animals, plants and microorganisms can multiply and disperse, causing increasing damage. Some damage may persist for centuries, because once a species has become established it is often difficult to eradicate it.

Many countries have learned the hard way. The classic example is the potato blight fungus, *Phytophthora infestans*, which was imported accidentally from America. From 1845 to 1848 it destroyed much of the potato crop across West Europe and caused widespread famine, particularly in Ireland. The mould has never been eradicated and in the Netherlands it is still one of the main targets of pesticide use. Another example: in the 1930s the north-eastern Brazil was ravaged by the most dangerous malaria mosquito, *Anopheles gambiae*, which was accidentally introduced from Senegal. Brazil succeeded, with American help, in eradicating the mosquito ten years later following a massive and highly costly information campaign – but 16,000 people had already died.

The gypsy moth, which does little or no damage in Europe, caused enormous damage to North American forests following its introduction in 1869, and is still active. A fungus from Japan has all but wiped out the American chestnut. And the Asian longhorn beetle, a native of South East Asia, has recently caused extensive damage to trees in North American cities , including New York, Chicago and Toronto. There are fears that the beetle will attack forests. The arrival of this beetle is also feared in Europe.

In other words, if American and European pressure induces Chinese exporters to use fewer toxic chemicals, the biological risk may be high. Too great a risk is already being taken with at least one insect: the Asian tiger mosquito. This aggressive biting mosquito can transmit viruses and it has already been introduced from Japan in Italy, where it has become a plague. It was probably brought in with shipments of car tyres; the water that collects inside them is an excellent place for the mosquitoes to lay their eggs. Last summer, the mosquito was responsible for the first European epidemic of the chikungunya virus in and around the Italian city of Ravenna. Holland is also at risk because containers of lucky bamboo, which can contain mosquito larvae, leave China for Rotterdam each week. The Asian tiger mosquito was first found in Dutch greenhouses, and in some places even outside, in 2005. There are fears that it will also carry the dengue fever virus in from China. Rather than using less pesticide, lucky bamboo exporters should in fact use more – if only to prevent the use of even more insecticide following an actual invasion.

But why do imports from China pose an increasing biorisk? Three factors are at play here:

- East Asia has a moderate climate. Many species are able to flourish in Europe and North America, and vice versa. This means that trade between these continents involves biorisks.
- East Asia has a greater biodiversity than Europe, partly because far fewer plants, animals and microorganisms died out during the Ice Ages. That is why China and Japan have larger numbers of harmful species.
- China is well on the way to becoming the world's largest exporter. This in turn raises the risk of exporting pest species.

It looks likely, therefore, that Chinese imports will present us with the dilemma of choosing between a biological or a chemical evil. Not a pleasant prospect.

But there are other options. If exporters fumigate with pesticides, they can prevent subsequent problems by ensuring the gas is effectively removed afterwards. They could also shift to carbon dioxide. They can heat-treat wooden pallets (already standard procedure in the Netherlands), impregnate them with insect repellent or even replace them with plastic pallets. And instead of transporting plants in containers with water, they can use gel containing a larvicide.

These measures costs money, so Chinese exporters will not take them until the EU and the US apply pressure through import policies. So that is necessary. After all, free trade does impose a considerable biorisk on importing countries. Safe trade, on the other hand, is an attractive prospect for both China as well as the US and Europe.

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