

The Problem With Pesticides in Medicinal Herbs

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Recent controversies surrounding herbal medicine have made it clear that there are inherent problems with the industrialization of ethnomedicinal practices. According to the WHO, developed countries in Europe and North America spend more than \$7 billion a year on complementary and alternative medicine, with Chinese herbal therapy one of the most commonly used therapeutic techniques. With so many individuals using these products, it is important for physicians and herbalists to be informed about the sources of their herbs, along with possible dangers and proper methods of cleaning raw herbs.

China's "Green Revolution" of the 1980s positioned the country as one of the largest agriculture producers in the world, supplying 42 percent of the earth's fruits and vegetables. China is also the largest producer and exporter of medicinal herbs. The practice of herbal medicine is thousands of years old, and China has a unique system of health care that has successfully integrated traditional and allopathic medicine. As a consequence of the Green Revolution, pesticide use increased across the country, which allowed plants to grow unaffected by insects, but also contaminated the food and water supplies.

Currently, the manufacturing and use of pesticides is unregulated in China. Many farmers, wary that their pesticides may be watered down, have been known to compensate by using double or even triple the recommended amounts. There is a push to start organic farming in China, and there is apparent success in the Wuyuan province, where green tea has passed the European standards for organic farming. Some medicinal herbs also are produced in this area, but the majority are produced in some of the most polluted areas in China.

According to the U.S. Food, Drug, and Cosmetic Act, herbal supplements and raw herbs are classified differently. Herbal supplements fall under the category of dietary supplements, while raw herbs are considered food. The presence of pesticides in a dietary supplement is clearly classified as an adulterated good, while raw herbs are only considered adulterated if the pesticide or chemical is considered unsafe to public health. Research being conducted at Baruch College in New York City this year will investigate the presence of pesticides in medicinal herbs imported from China, and develop simple methods for their removal.

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