

The Investigation on Heavy Metals (Cadmium, Mercury and Lead) in Rice

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ABSTRACT

In order to understand the contents of heavy metals (cadmium, mercury and lead) of rice in Taiwan, rice samples provided by the rice mills were collected from February to December, 2004. Sixty-nine samples of the first crop rice and ninety samples of the second crop rice were analyzed. The results showed that the total average content of cadmium in rice was 0.04 ppm (N.D.~0.24 ppm), that of mercury was 0.002 ppm (N.D.~0.008 ppm) and that of lead was 0.03 ppm (N.D.~0.11 ppm). The average contents of cadmium, mercury and lead for the first crop rice were 0.04 ppm (N.D.~0.12 ppm), 0.002 ppm (N.D.~0.007 ppm), and 0.03 ppm (N.D.~0.11 ppm), respectively. The average contents of cadmium, mercury and lead for the second crop rice were 0.05 ppm (0.01~0.24 ppm), 0.002 ppm (N.D.~0.008 ppm), and 0.02 ppm (N.D.~0.10 ppm), respectively. In this investigation, all rice samples were under good safety control. The contents of cadmium, mercury and lead in rice were all in compliance with the regulation set by the Department of Health, Executive Yuan.

Key Words : rice, heavy metal, cadmium, mercury, lead.