

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

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ABSTRACT

In order to investigate the contents of heavy metals (cadmium, mercury and lead) in rice in Taiwan, rice samples from the rice millers were collected from March to October, 2009. Seventy-seven samples of the first crop rice and 84 samples of the second crop were analyzed. The results showed that the total average content of cadmium, mercury and lead in rice were 0.04 ppm (N.D.~0.37 ppm), 0.002 ppm (N.D.~0.01 ppm) and 0.02 ppm (N.D.~0.16 ppm), respectively. The average contents of cadmium, mercury and lead for the first crop rice were 0.04 ppm (N.D.~0.17 ppm), 0.002 ppm (N.D.~0.007 ppm) and 0.02 ppm (N.D.~0.16 ppm), respectively. The average contents of cadmium, mercury and lead for the second crop rice were 0.04 ppm (N.D.~0.37 ppm), 0.001 ppm (N.D.~0.01 ppm) and 0.02 ppm (N.D.~0.14 ppm), respectively. All rice samples have shown for good safety and under 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 metals, cadmium, mercury, lead