Investigation of undeclared food allergens in commercial Thai food products

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Abstract

This study investigates the presence of undeclared allergens – namely milk, egg, wheat and peanut – in commercial processed food products in Thailand. Out of 142 commercial products, 55 positive cases were found (by quantitative ELISA method) to contain an undeclared allergen greater than 10 ppm. Among all positive products, undeclared milk appeared the most frequently (21 cases), followed by egg and wheat with similar frequency (17 cases), while peanut was rarely found. Milk- or egg-positive products were further confirmed by the presence of the milk protein, casein, or the egg protein, ovalbumin, by Western blot test. Our results should help to increase the awareness among Thai food manufacturers of the need for more careful management of allergenic food ingredients, and to encourage the labeling of allergen information for allergic consumers, thus reducing the health hazard from food allergy.