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This study was carried out to investigate the 115 kinds of pesticide residues in agricultural products, 3644 samples, in the northern area of Seoul from March in 1999 to August in 2000. The detection rate of pesticide residues was 5.0% (181 of 3644 samples). The order of the agricultural products in which pesticide residues were detected was korean lettuce> perilla leaf> green pepper> korean cabbage> leek> spinach> cucumber> leafy radish. The percentage of the agricultural products in excess of MRL was 1.9% (70 of 3644 samples). The agricultural products in excess of MRL were perilla leaf(14 cases), korean lettuce(12 cases), spinach(6 cases), green pepper(5 cases), etc.
The order of the pesticide residues which were detected in agricultural products was procymidone, endosulfan, chlorpyrifos, vinclozolin and pyrazophos. the average residual values(mg/kg) of procymidone, endosulfan, vinclozolin, chlorpyrifos and pyrazophos were 2.203, 1.027, 1.729, 1.111 and 0.775, respectively. The pesticide residues in excess of MRL were chlorpyrifos (19 cases), endosulfan (10 cases), procymidone (8 cases), vinclozolin (6 cases), pyrazophos (4 cases), etc. and the measured concentration ranges of chlorpyrifos, endosulfan, procymidone,vinclozolin ,chlorothalonil, diazinon, and EPN were 0.009~6.723, 2.3~5.8, 2.0~30.8, 1.7~20.33, 10.7~21.7, 0.5~4.3, 0.28~4.19, respectively.

[PD4-23] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

The analysis of retinol derivatives in cosmetics by HPLC

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This study was carried out to determine retinol derivatives in domestic and imported cosmetics. Experimental subjects were 34 cosmetics which contained cream, cleanser, lotion, liquid and packs.
The obtained results were as follows;
1. The analytical method was applied with HPLC system of μ-Bondapak C18 column with mobile phase, 100% methanol at 325nm.
2. The calibration curve showed good linearities having r value of 0.9998, 0.9999 and 0.9997, at the range of standard concentrations; retinol(3.4~344.2), retinyl acetate(2.2~109.0) and retinyl palmitate(7.5~422.4)unit/ml were used as standards. These compounds were successfully separated on the retention time 4.6, 5.4 and 17.3 respectively.
3. The recovery was obtained as 98.3 ±2.3% (RSD:2.34), 93.7 ±2.3% (RSD:2.47) and 103.2 ± 3.6% (RSD:3.52) respectively from the spiked preparations.
4. Samples were extracted as two ways; 100% methanol only(method I) and mixture of methanol and chloroform(95:5, method II). Target component in samples was determined as the range of amount 510.9~194019.9 and 502.5~197976.7(unit/g) respectively except four samples.

[PE1-1] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

The influence of terpenes on the in vitro permeation of prostaglandin E1 through hairless mouse skin