CORRESPONDENCE

On the Analysis of the Herbicide Chlorsulfuron in Soil by Liquid Chromatography

Sir: The paper "Analysis of the Herbicide Chlorsulfuron in Soil by Liquid Chromatography" published in *J. Agric. Food Chem.* (**1982**, *30*, 854) documents a residue method with a detection limit of 0.2 ppb. This high sensitivity is important because certain rotational crops can be affected by the presence of Glean in soil near this level, and even minute amounts of inadvertent introduction of Glean into the samples can produce serious errors in the analysis.

Assuming that samples of soil are properly taken in the field, handled, shipped, and stored in a manner to avoid any contamination by Glean, it then is of paramount importance that all potential sources of contamination are eliminated during processing and analysis of the samples in order to avoid false positive results and erroneous conclusions.

Several laboratory operations merit particular attention. (1) The trays on which the soils are dried and handled after milling are especially difficult to clean properly. These should be lined with aluminum foil, which is discarded after use. (2) The jars and balls used in the milling operation should be cleaned first with a laboratory cleaner and hot water and then by an acetone rinse, a methylene chloride rinse, and a rinse with a 1:1 mixture of methanol and 2-propanol. (3) Rotary evaporators should be flushed with methylene chloride after *each* use. (4) The needles of the nitrogen evaporator should be detached, soaked in methylene chloride for at least 10 min, and then rinsed with a 1:1 mixture of methanol and 2-propanol after *each* use.

Special caution is needed when a series of samples contains both high- (>1 ppb) and low- (≈0.2 ppb) level samples.

In all cases, the equipment and apparatus used should be carefully cleaned and isolated from any other laboratory operations.

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