UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 6 1984

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#2F2707/2H5355 Cyromazine in Poultry Feed

FROM: Philip V. Errico, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Chief
Residue Chemistry Branch
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TO: Tim Gardner, PM 17
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and

Toxicology Branch
Hazard Evaluation Division (TS-769)

Via telephone conversation with Jim Ross of Ciba-Geigy (March 5, 1984), a standard sample of the cyromazine metabolite, melamine, will be sent to Pesticides and Industrial Chemicals Repository at RTP.

cc: R.F., Circu, P. Errico. Cyromazine S.F., R. Thompson
RDI: RDC: R. Quick, 3/5/84, R. Schmitt, 3/6/84
TS-769:RDC: P. Errico:mh:CM#2:RM810:X77324:3/6/84

Tim — note changes from Yesterday's copy —

ADDENDUM TO CYROMAZINE LEACHING COMMENTS MEMORANDUM

The following is in response to your further request for data on cyromazine.

1.0 Summary of Environmental Characteristics

1.1 Adsorption and Leaching

Cyromazine and melamine have potential to leach in soils low in organic matter. Cyromazine and aged cyromazine residues are considered mobile in sand soils and moderately mobile in silt loam soils.

1.1.1 Adsorption

Cyromazine showed slight to moderate adsorption to soil.

Cyromazine adsorption K values:

K value	Soil Type	% Soil Organic Matter
0.5	sand soil	2.2 (moderate (low) organic matter content)
2.4	sandy clay loam	5.6
3.9	silt ~~loam~~	3.6
17	organic	17 (high organic matter content)

1.1.2 Soil Column Leaching

Cyromazine and aged cyromazine residues are mobile in sand soils and moderately mobile in silt loam soils. After 30 days aging, ^{14}C residues of cyromazine were found throughout the columns of both soils. Both cyromazine and melamine were found in leachate of the sand soil column.

1.2 Microbial breakdown

Cyromazine degrades by microbial activity to melamine under aerobic soil conditions. Aerobic soil half-life is estimated to be ~~>1 year~~ 1.3-2 years. Melamine appears to be stable to further degradation. However, in the field, melamine may leach to depths beyond the area of microbial degradation thereby resulting in a longer half-life