3/16/15 Plenary General Remarks:

Group I. Exposure Assessment.

- Exposure assessment: yes/no
- Few to individual pesticides
- Questionnaires
- Except for the Ag. Health Study.
- Used most: glyphosate
- Labeled: malathion

Group II. Epidemiology:

- Ag. Health Study, 2 case-control
  - Midwestern Canadian
  - Exposure Assessments

TCVP - Inadequate for carcinogenicity
Parathion - Excess risk for melanoma - limited evidence inadequate
Malathion - Limited
Diazinon - More evidence for cancer - limited NHL, leukemia, lung
Glyphosate - Limited NHL
  - Inadequate MM
Group III - Animal studies

Early - mid '70s Animal bioassay
Limited # of animals
Number of limited factors
All studies were considered adequate

FOAs - EPA documents - studies submitted for registration purposes to EPA from Ag. comp.

TCVP - Liver tumors mice -> Sufficient
Renal carcinoma
A switch from limited -> Sufficient

Group IV

10 key character of agents that cause cancer
TCVP genotoxic - moderate
Group I
Parathion

Group II
Parathion - Epi is not a lot in humans

Originally: Group III
- Lung cancer
  Prostate < some signals
  OR 1.5

Group III
Parathion
Sufficient evidence for animal carcinogenicity
  - Mice adenoma
  - Lymphoma
  - Rat adrenal
  - Mamm.
  - Pancreatic

Group IV
Parathion

Group I
Malathion - exposure

Group II
Malathion - prostate, NHL

Group III
Malathion - mouse liver (M, F) ▲
  - Rat liver
  - Rat mammary
  \{ Sufficient in animals \}
Foil - Malathion

MAL/DZN/GLY

→ mechanism operable in humans ←

Group II
Otheion Mechanism Upgrade,

Group II
Diagnosis

Group II
Diagnosis - NHL

Lung cancers limited.

Group III

Diagnosis

1 study

Mouse - NHL

Rat - leukemias

Inadequate evidence

in animals

Group IV

Glyphosate

detectable in water & food.

Group II

Glyphosate negative NHL

Case-control study; Glyph. → NHL

AHS negative data.

Group III

Glyphosate - limited to inadequate;

Group IV

Glyphosate