UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

Subject: Atrazine 90-Day Response from Ciba-Geigy.
No MRID Number
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Ciba-Geigy has submitted their 90-Day Response to the Atrazine Data Call-In received by the company 10/19/90. Below we provide this response with CBRS comments separately for each Guideline (Subdivision O, Residue Chemistry) section.

We note that the current definition of the total toxic residue for atrazine includes parent and all metabolites with a triazine ring. Dietary exposure to atrazine residues has been completed and will be revised assuming that all residues with a triazine ring are of concern. Furthermore, this exposure assessment and the resulting risk assessment will be presented to the atrazine Special Review team for consideration of what action, if any, should be taken for this pesticide considering the estimated risk. If the registrant chooses to complete and submit the results of a hydroxyatrazine carcinogenicity study to the Agency (this study was not required by the Agency), and the results indicate that hydroxyatrazine is not carcinogenic, substantially different data will be required, and a revised exposure/risk assessment will be necessary. **However, CBRS recommends that the Agency not extend the Residue Chemistry data due dates to accommodate the possibility of a negative hydroxyatrazine carcinogenicity study because (i) the study may show that**

hydroxyatrazine is carcinogenic, and (ii) the current risk assessment indicates a substantial dietary risk resulting from application of atrazine to crops.

Regarding the required studies discussed below, we strongly encourage the registrant to submit **detailed** protocols prior to initiation of these studies to avoid submission of unacceptable studies to the Agency.

171.4 Residue Analytical Method

Registrant's Response

In the December 19 meeting it was noted that any metabolite with an intact triazine ring is of concern to the Agency. While there is methodology for conversion of triazines to cyanuric acid, this methodology is not specific in that it cannot discern triazine residues from atrazine from triazine sources other than atrazine, i.e., cyanuric acid derived from both other pesticide and non-pesticide sources which have been demonstrated to be present in the environment. Despite over 20 years of effort by Ciba-Geigy to apply cyanuric acid methodology to crop and animal residue analysis, backgrounds of residues on the order of 1 ppm in crops and animal fluids have been encountered in numerous substrates derived from carefully controlled field trials and animal studies. Moreover, these background levels are extremely variable. Therefore, such an approach to quantification of total atrazine residues is not considered feasible. Please note the following:

1. Our proposal is to use marker residues in crops to increase residue accountability. Current chlorotriazine methodology accounts for 5-10% of total residue. Based on data from field-derived ^{14}C atrazine metabolism studies, adding methodology for hydroxyatrazine (G-34048) and the de-ethylated hydroxy metabolite (G-17794) would increase the accountability of the total residue significantly.

The proposed enforcement methods would then account for the four chlorotriazine moieties (atrazine, G-28279, G-30033 and G-28273) and the two major hydroxytriazine metabolites (G-34048 and G-17794), for a total of six metabolites. Both the chlorotriazine and hydroxytriazine methodology will be applied to representative samples from each of the three ^{14}C treated corn and sorghum studies described in 171-4 Plant Residue/Metabolism studies noted below, to determine the extractability, accountability and suitability of these methods for tolerance enforcement purposes using a marker residue concept. The proposed hydroxytriazine methodology will also be subjected to method ruggedness trials by third party laboratories.

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2. Since metabolism studies have indicated that potential dietary exposure of food animals to chlorotriazine residues is extremely low or nonexistent and, in addition, a ruminant feeding study for hydroxyatrazine to determine the potential for transport and deposition of residues from fed commodities to meat and milk is being proposed as part of this response (see 171-4 Livestock Metabolism below), Ciba-Geigy requests that the request for hydroxy metabolite enforcement methodology in animal commodities be reserved until the potential for deposition of residues in these tissues has been determined.

3. A multiresidue method testing study, Ciba-Geigy report Number ABR-89010 (MRID No. 414234-01), has already been submitted to the Agency.

4. Successful method ruggedness trials for Methods AG-484 (MRID No. 413971-02) and Method AG-476 (MRID No. 413971-03) have been submitted to the Agency. Methodology for milk (AG-436 and AG-496) has been revised and has passed a ruggedness trial but has not yet been submitted. EN-CAS Method 86-284 has not yet successfully passed a method ruggedness trial. These data will be provided to the Agency under the time frame stipulated in the DCI.

CBRS Comments

Available plant metabolism studies show that the metabolites comprising the total residue as well as the ratio of metabolites present at harvest vary for different crops and for different parts of a crop. The composition of the residue varies as well depending on whether the pesticide is applied pre- or post-emergence, and on the PHI utilized. For example, the various metabolism studies submitted for corn show that the percentage of organo-soluble residues in the total residue range from 0.5%-22% in stalks and <0.1-21% in grain; and aqueous-soluble residues range from 27-70% in stalks and 47-78% in grain (Ciba-Geigy Studies ABR-87093, GAAC-71022). In field trials, only a single sample of corn grain had detectable residues of parent or a chlorometabolite (atrazine parent found at the limit of detection of 0.05 ppm); whereas detectable residues of parent and chlorometabolites were found in numerous sugarcane samples, and extrapolation of the limited sugarcane field trial data to typical PHIs suggest that more detectable residues would likely be found if additional field trial data were available in which metabolites were determined. Because of this variation in the composition of the residue, the registrant must provide additional information regarding how this method can be used for tolerance enforcement purposes.

A second problem associated with the marker method is the low limits of detection (LOD) which would be required to show that the risk was acceptable assuming all non-detectable residues were

found. For example, the current risk assessment for atrazine shows a risk of 8.4×10^{-6} from corn assuming an anticipated residue of 0.1 ppm (excludes residues resulting in animal tissues, eggs and milk resulting from ingestion of treated corn by animals). Assuming corn grain typically would contain atrazine (1%), G-28279 (1%), G-30033 (1%), G-28273 (2%), G-34048 (1%), and GS-17794 (9%) (percentages estimated from corn metabolism studies), the following approximate limits of detection would be required to demonstrate a risk from corn grain of $<1 \times 10^{-6}$:

Marker	LOD
Atrazine	0.1 ppb
G-28279	0.1 ppb
G-30033	0.1 ppb
G-28273	0.2 ppb
G-34048	0.1 ppb
GS-17794	1 ppb

It is not likely that methods with these limits of detection which can be routinely used for residue data collection or enforcement purposes can be developed. The registrant must provide information regarding lower limits of detection which they anticipate could be achieved using the proposed method, and **these LODs must be sufficiently sensitive to enable enforcement agencies to detect misuse of the pesticide.**

The registrant must apply the marker methodology described to a sufficient number of representative samples of each of the raw and processed commodities, and animal feeds listed in Subdivision O of the Pesticide Assessment Guidelines for corn, sorghum, wheat, and sugarcane.

Sufficient field trial and metabolism (field and greenhouse) data are available to indicate that a substantial dietary risk exists resulting from current use of atrazine on crops. New toxicological data which would change the method of quantifying risk from atrazine are not available and are not likely to be available in the near future (personal communication with K. Baetcke, Ph.D., Chief, Toxicology Branch I, 12/4/91). **Although the proposed marker method could potentially be used for enforcement purposes assuming the concerns discussed above are adequately addressed by the registrant, it is unlikely that sufficiently low LODs can be achieved to make this method useful for estimation of dietary exposure to atrazine residues.** Therefore, dietary exposure to atrazine for the major crops to which atrazine may be applied will be estimated from field and greenhouse radiolabeled studies. Should the atrazine Special Review team deem it appropriate to proceed with Special Review of

atrazine, we recommend that the Atrazine Special Review proceed utilizing the current exposure/risk assessment which is based on available metabolism studies for major crops.

Toxicology Branch I stated (K. Baetcke, Ph.D., Chief, 12/4/91) that a hydroxyatrazine carcinogenicity study has been initiated by the registrant although this study was not required by the Agency. Dr. Baetcke stated that if this study came back negative (i.e., it is shown that hydroxyatrazine is not carcinogenic), TOX will consider the total toxic residue to consist only of the parent and chlorometabolites of atrazine (assuming that the toxicological end point in risk quantification remains carcinogenicity). In that case, analytical methodology which measures all metabolites with a triazine ring will not be required. The registrant would be required to develop new analytical methodology for the parent and chlorometabolites for which the combined limit of detection is sufficiently low that the combined risk for all commodities (including drinking water) which could contain residues of atrazine and its metabolites calculated by the Dietary Risk Evaluation System (DRES), is acceptable (generally less than 1×10^{-6}). (We note that an even lower limit of detection may be required if the Agency decides that the risk from all or some triazine herbicides should be added in estimating dietary risk.) Additionally, residue field trial data would be required for all commodities for which atrazine is registered utilizing this new methodology. Considering available data, it is possible that if the hydroxyatrazine carcinogenicity study is negative, the combined risk from atrazine and its chlorometabolites may be acceptable for many commodities. However, until the results of this study are provided, the total toxic residue will include all metabolites with a triazine ring, and the currently available exposure assessment represents our best estimate of dietary exposure. It is the position of CBRS that due dates for the required Residue Chemistry data not be extended to accommodate the possibility of a negative hydroxyatrazine carcinogenicity study. (We note that a revised anticipated residue estimate will be provided for dietary exposure assessment.)

171-4 Plant Residue/Metabolism

Registrant's Response

EPA reviews indicate that plant metabolism is well understood, except for sugarcane for which plant metabolism studies have not been performed. However, quantification of residues is not well understood. Our proposal is as follows.

1. Using radiolabel field studies, sugarcane will be treated at maximum use rate preemergence.

2. Analyze for nature and magnitude of the residue in sugarcane. Nature and residues in processed fractions (bagasse, sugar, molasses) will be addressed through analyses of nonradiolabeled samples or radiolabeled samples generated in this study. The choice of approach will depend on the observed nature of the residue in sugarcane.

3. Conduct corn/sorghum magnitude of residue radiolabeled field work to include rotationals (limited program).

-3 plots (NY, IL, MS)
-plant a different variety of corn/sorghum in each of three locations
-treat postemergence only at max. use rate for the soil type at 12" stage (postemergence represents worst case for potential residues)
-take plant harvests at appropriate times (residues)
-use plots for rotationals to cover representative small grain, leafy vegetable, and root/tuber crops at each location feasible
-monitor soil residues over time after application
-analyze all plant samples with uptake of >0.01 ppm for nature of residue as expressed by current tolerance expression and with particular emphasis on determining the magnitude of the marker metabolites

4. Wheat - The EPA residue chemistry review (dated October 18, 1988) provided by the Agency did not ask for data on wheat, but the DCI did require it. Please clarify this discrepancy. Also a requirement to supply processing data was noted (Footnote 17 in Residue Chemistry Table A). Depending on results of radiolabeled field trials for other commodities, Ciba-Geigy will provide analysis of existing wheat samples (cold data) using the marker metabolite approach, if the above clarification can be provided by the Agency.

5. Macadamia Nuts - Ciba-Geigy requests a waiver of the requirement to conduct additional residue trials with this minor crop. Due to accountability problems, it is our proposal to conduct field radiolabeled studies in corn, sorghum, and sugarcane. It is not feasible to conduct radiolabel studies on macadamia nuts. Therefore, we would request that the Agency rely on our existing data base plus the new proposed research to support the existing tolerance on macadamia nuts.

5.[a] A due date extension for the radiolabeled sugarcane field residue program is being requested, as sugarcane is a two-year crop and field work cannot begin until the fall of 1991. Refer to the attached due date summary. The corn and sorghum data will be provided by the required due date.

6. Crops not being supported by Ciba-Geigy for reregistration include range grasses, pineapple, and proso millet. Please note these uses have been deleted from our labeling during the Special Data Call-In, and therefore data to support these uses will not be generated.

7. Processing Studies - In the footnotes for the crops corn, sorghum, wheat, and sugarcane, a requirement to conduct processing studies was noted. Ciba-Geigy requests that this requirement be reserved until results of the analyses of the grain samples from the proposed field program, noted above, for total radioactivity and/or marker metabolites are obtained. Previous field data using radiolabeled compound on corn indicated that residues were non-detectable. Additionally, a successful trial must first occur for the marker methodology being proposed as well.

CBRS Comments

CBRS has the following general comments regarding the registrant's response for sugarcane, corn, sorghum and wheat.

- The current risk calculation for atrazine shows substantial dietary risk associated with the use of this product. In the absence of other data which could be used to estimate atrazine residues in food and feed, CBRS will use field and greenhouse radiolabeled studies to estimate exposure from corn and sorghum (as well as animal products), and field trial data in which only residues of parent and chlorometabolites were measured for sugarcane, macadamia nuts, and wheat (corrections may be made in anticipated residue estimates correcting for metabolites other than parent and chlorometabolites by assuming that the total residue is comprised of a particular percentage of residues other than parent and chlorometabolites utilizing data from corn and sorghum radiolabel studies). Conservative assumptions will be used in cases where the entire residue containing the triazine ring was not measured in studies used for anticipated residue determination.

- CBRS recommends that the registrant submit detailed protocols prior to initiation of the required studies so that submission of unacceptable studies is avoided. These protocols should address, in detail, all considerations in the study design including representative sampling (see below), analytical methodology (including limits of detection, see below), sample storage and handling, and other pertinent factors which might influence the acceptability of the studies.

- The required field radiolabel studies must be sufficiently representative to allow estimation of the likely variability of residues due to geographical location (/soil types), the range of labeled uses, application volume, types of formulations, and additives to the applied sprays. Should the registrant wish to limit the number of variables which must be accounted for in these studies (and therefore reduce the number of required studies), label modifications restricting some uses are required (e.g. require or restrict use of oil additive in spray solutions, perform studies using the minimum spray volume specified on the label, etc.). We recommend that the registrant submit detailed protocols prior to initiation of these studies in which the study design is addressed in terms of these and other pertinent issues.

- For each commodity listed as a food or feed in Subdivision O of the Pesticide Assessment Guidelines (Residue Chemistry), the nature and magnitude of the residue must be determined for all times representative of those at which the commodities may be used for human or animal consumption or for processing. Since the registrant proposes to demonstrate the feasibility of the proposed marker analytical methodology for enforcement purposes using these data, sufficient data must be provided to show the relative proportions of metabolites for each commodity/harvest time combination, and the registrant must provide rationale for use of the marker methodology considering any differences in metabolite ratios encountered.

- Analytical methods to be used for **enforcement purposes** are required. These methods must be applied to samples obtained from the radiolabel field studies to determine extractability, accountability and suitability of these methods as mentioned in the registrant's response to analytical methodology requirements. A sufficient number of radiolabeled field samples must be utilized to assure suitability of the analytical method for enforcement purposes. Commodities analyzed must include those raw, processed, and animal feed commodities listed in Subdivision O of the Pesticide Assessment Guidelines for corn, sorghum, wheat, and sugarcane. We recommend that the registrant submit a protocol for CBRS review prior to initiation of the studies to assure their acceptability.

- The required radiolabeled field studies will be used for dietary exposure assessment as well as for validation of the analytical method. The limit of

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detection in these radiolabeled studies must be sufficiently low that an acceptable risk (generally less than 1×10^{-6} for the combined risk to all commodities, and drinking water, to which atrazine may be applied) can be determined assuming all residues are found at the analytical method limit of detection. However, until these studies are completed, dietary exposure will be estimated based on the available field trial or field/greenhouse radiolabel data.

- Should the registrant choose to complete the hydroxyatrazine carcinogenicity study, results showing that hydroxyatrazine is not carcinogenic would negate the need for determination of residues other than the parent and chlorometabolites, and therefore, additional field metabolism studies would not be required (assuming that the toxicological end point in risk quantification remains carcinogenicity). In this case, residue data for the parent plus chlorometabolites would be required for these commodities in which analytical methodology with a lower detection limit is utilized. The method utilized must have a sufficiently low LOD to allow determination of whether risks are acceptable (generally less than 1×10^{-6} for the combined risk to all commodities, and drinking water, to which atrazine may be applied) when calculated by the Dietary Risk Evaluation System (DRES). These additional residue field trial data must be submitted concurrently with the results of the carcinogenicity study. We note that it is the position of CBRS that due dates for the currently required Residue Chemistry data not be extended to accommodate the possibility of a negative hydroxyatrazine carcinogenicity study.

Below we discuss details of the registrant's response which are specific for each commodity.

SUGARCANE (responses nos. 1, 2 and 6):

CBRS has the following comments:

- The registrant must specify the number and locations of radiolabel field trials for sugarcane. A sufficient number of studies must be performed so that the likely variability in residues of total triazine in sugarcane commodities can be determined. Adequate geographical representation is necessary. We recommend that the registrant provide protocols prior to the initiation of these studies for CBRS review.

- The method used to determine residue concentration/reduction in processed sugarcane samples

must have a sufficiently low LOD to allow determination of whether risks are acceptable (generally less than 1 x 10^{-6} for the combined risk to all commodities, and drinking water, to which atrazine may be applied) when calculated by the Dietary Risk Evaluation System (DRES). We recommend that the registrant submit a protocol for CBRS review prior to initiation of the studies to assure their acceptability.

- CBRS has no objections to a due date extension for the proposed radiolabel field study for sugarcane. However, the registrant should be made aware that regulatory decisions made prior to the availability of these data will utilize the best data currently available to the Agency.

CORN/SORGHUM

CBRS has the following comments regarding the registrant's proposal for corn and sorghum field metabolism studies:

- If the registrant wishes to maintain registrations on sweet corn, field metabolism studies for sweet corn must be submitted.

- Further information is required regarding reasons for choosing NY, IL, and MS as locations representative of field corn and sorghum growing areas. We recommend that a detailed protocol be submitted to CBRS for review prior to initiation of these studies.

- Since corn and sorghum can be treated both pre- and post-emergent, and both the residue profile and magnitude will vary depending on the time of application, radiolabel field trials must provide representative data for both of these situations. We recommend that a detailed protocol be provided to CBRS for review which summarizes available radiolabel field studies for these commodities, and discusses how the proposed studies will supplement the available studies to provide data representative geographically, of soil type, and of registered uses.

- CBRS defers comment regarding residues in soil or rotational crops to the Environmental Fate and Groundwater Branch (EFED).

WHEAT

CBRS has the following comments regarding the necessity for radiolabeled field studies for wheat:

- Metabolism studies are not available which would allow estimation of total triazine ring residues from wheat fallow applications. Detectable residues of parent and chlorometabolites were found in forage, straw, and grain at PHIs greater than 1 year. Since metabolism studies in corn and sorghum indicate that the percentage of the total residue accounted for by parent and chlorometabolites decreases as PHI increases, the presence of detectable residues of parent and chlorometabolites at such long PHIs in wheat suggests that the total residues of all components with a triazine ring may be considerably higher than residues of parent alone. Therefore, field metabolism studies for wheat are required. We recommend that the registrant submit a detailed protocol prior to initiation of these studies.

MACADAMIA NUTS

The registrant's requested waiver of the requirement to conduct additional residue trials is acceptable. Since data are available which show non-detectable residues of parent and chlorometabolites in macadamia nut nutmeat, and since macadamia nuts account for such a small portion of the national diet, these data will not be required.

PROCESSING STUDIES

CBRS believes that the requirements for the processing studies for these commodities should remain. CBRS has the following comments regarding the registrant's request that requirements for processing studies for corn, sorghum, wheat, and sugarcane be reserved until the results of the analyses of grain samples from the field programs are obtained:

- We disagree with the registrant's assertion that "previous field data using radiolabeled compound on corn indicated that residues were non-detectable". We refer the registrant to the following reports: ABR-79001, ABR-87093, GAAC-71022, GAAC-72122, GAAC-75083R/GAAC-76011R, and ABR-79087 which show grain residues of 0.05 ppm, 0.30 ppm, 0.03-0.06 ppm, 0.07 ppm, 0.11 ppm, and 0.05 ppm respectively. We note that the risk from residues of atrazine in corn resulting from assuming 0.1 ppm in the grain is $>8 \times 10^{-6}$. Similar data are available for sorghum. Should these residues be found to concentrate in processed fractions, particularly corn sugar and sugar from sugarcane, a significantly higher risk estimation would result.

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- It is unlikely that the marker methodology will have a sufficiently low limit of detection to allow determination of residues at levels corresponding to acceptable risk. It is more likely that radiolabel studies will be necessary to determine concentration/reduction of residues in processed commodities of corn, sorghum, wheat, and sugarcane.

- The methods used to determine residue concentration/reduction in processed samples must have sufficiently low LODs to allow determination of whether risks are acceptable (generally less than 1 x 10^{-6} for the combined risk to all commodities, and drinking water, to which atrazine may be applied) when calculated by the Dietary Risk Evaluation System (DRES). We recommend that the registrant submit a protocol for CBRS review prior to initiation of processing studies to assure their acceptability.

171-4 Storage Stability

Registrant's Response

Because we are proposing that some of the due dates for residue data be extended, and since storage stability data cannot start until samples have been collected from field studies, it is logical to extend the due date for the storage stability data for corn, sorghum, and sugarcane and their fractions. Please note this on the due date attachment.

CBRS Comments

CBRS recommends that the required storage stability studies be performed side-by-side with the field metabolism studies utilizing radiolabeled pesticide. Both fortified (spiked) and field weathered residue samples should be utilized. For several representative commodities, the registrant should obtain sufficiently large samples that subsamples may be removed for residue characterization/quantification at day-zero and at intervals thereafter. Commodities chosen for storage stability studies must be representative of stored commodities with regard to matrix characteristics and storage conditions. Storage times must be at least as long as commodities used for residue determination are stored. CBRS recommends that the registrant submit a detailed protocol for Agency review prior to initiation of these studies. Submittal of storage stability data will be required concurrently with submission of radiolabel field study data.

Should the registrant choose to complete the hydroxyatrazine carcinogenicity study, and results show that hydroxyatrazine is not carcinogenic, determination of storage stability for residues

of only parent and chlorometabolites would be required. We refer the registrant to Subdivision O of the Pesticide Assessment Guidelines for further information. Submittal of storage stability data in this case will be required concurrently with submission of any required field trial data. We note that it is the position of CBRS that due dates for the currently required Residue Chemistry data not be extended to accommodate the possibility of a negative hydroxyatrazine carcinogenicity study.

171-4 Livestock Metabolism

Registrant's Response

In the science reviews received as part of the DCI, it was noted that sufficient data on parent atrazine was available to characterize metabolism in animals, and therefore metabolism in animals was well understood. However, the DCI requested additional metabolism data on poultry and ruminants to characterize parent hydroxyatrazine's fate. Also, concern about plant metabolites were noted.

Based on our December 19 meeting, Ciba-Geigy proposes to conduct a ^{14}C hydroxyatrazine feeding study in ruminants (goat) only. Through administration of parent hydroxyatrazine at levels in excess of the expected residues in forage commodities, it will likely be possible to generate other hydroxyatrazine metabolites of concern and measure as well their potential contribution to possible residues in meat and milk.

Ciba-Geigy does not believe it is prudent to conduct a poultry study because feeding treated grain to poultry will not result in sufficient residues to adequately characterize. Note that grain is all that is fed to poultry, whereas grain and silage can be fed to ruminants. Consequently there will not be high enough residues of atrazine in grain treated according to use rates on the label (<0.06 ppm). This is reflected in the data we have provided in the past. For this reason, we ask that a poultry study not be required.

Further, a due date extension for these data is also requested (Refer to the attached due date summary). This is needed because of the anticipated difficulties in completing the marker method validation noted above, plus the difficulty of synthesizing sufficient ^{14}C hydroxyatrazine for conducting this study on a very short time frame.

CBRS Comments

In the CB review of 5/3/90 (M. Metzger), a Ciba-Geigy review

(ABR-89065, actual study not submitted) of a chicken metabolism study was discussed. In this study, "biosynthesized metabolites" (corn treated with radiolabeled atrazine, grown to maturity, and grain fed to chickens) with 0.047 ppm total radioactivity (corn grain) resulted in total radioactive residues of 0.013 ppm in liver, 0.009 ppm in kidney, and 0.008/0.01 ppm in egg whites and yolks. Based on the results of this study, CBRS has estimated anticipated residues which lead to risks of ca. $1x10^{-6}$ resulting from consumption of eggs. Since the combined risk from eggs plus all other commodities containing atrazine residues is considered in risk assessment, the risk from eggs contributes significantly in determining whether an acceptable risk exists resulting from consumption of atrazine residues. Therefore, we conclude that a hydroxyatrazine metabolism study in poultry is required.

Should the registrant choose to complete and submit the hydroxyatrazine carcinogenicity study, and results show that hydroxyatrazine is not carcinogenic, additional poultry metabolism studies will not be required. We note that it is the position of CBRS that due dates for the required Residue Chemistry data not be extended to accommodate the possibility of a negative hydroxyatrazine carcinogenicity study.

CBRS has no objections to the proposed due date extension for submission of the ^{14}C hydroxyatrazine goat feeding study. However, as stated previously, the dietary exposure assessment for atrazine will be based on the best currently available data, and this assessment will be provided to the atrazine Special Review team for consideration of any action which should be taken for this pesticide.

cc: M. Metzger (CBRS), R. Schmitt (CBTS), Atrazine S.F., Atrazine Reg. Std. File, RF, Circu (7), C. Furlow (PIB/FOD, H7506C)
RDI:W.Hazel:WH:12/30/91:REZ:1/1/92
H7509C:CBRS:M.Metzger:MM:Rm810f:CM#2:1/9/92