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

JUL 23 2009

OFFICE OF THE
CHIEF FINANCIAL OFFICER

The Honorable Dianne Feinstein
Chairman, Subcommittee on Interior,
Environment, and Related Agencies
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Madam Chairman:

Enclosed for your review, please find the Environmental Protection Agency's (EPA) Report to Congress on Pesticide Licensing and Endocrine Disruptor Screening Activities. Congress required the report in the 2008 House Report 110-187, page 108.

Congress required the report in light of continued full funding of the Endocrine Disruptor Program and stated, "...Given that the Committee has restored funding for the Endocrine Disruptor Program, it expects the Agency to accelerate its schedule for completing validation of screening and testing assays. To that end, the Committee directs the Agency to report to Congress within six months of enactment of this Act, and annually thereafter," the Agency's progress on the following activities:

- Pesticide registrations, reregistrations, reregistration eligibility decisions, tolerance assessments and registration reviews since August 3, 1999;
- The number of such pesticides for which EPA has conducted or required testing for endocrine disrupting effects;
- The number of such pesticides for which EPA has considered and made a determination regarding endocrine disrupting effects;
- The number and identity of endocrine disruptor screening and testing assays EPA has validated, along with the number not validated and the reasons why they have not been validated;
- A schedule for completing validations for Tier 2 screening testing assays.

Thank you for your interest in this important environmental matter. Should you need additional information or have further questions, please contact me or Ed Walsh at (202) 564-4594.

Sincerely,

Maryann Froehlich
Acting Chief Financial Officer

Enclosure

Pesticide and Endocrine Disruptor Report
To 2008 House Appropriations Committee (HR-110-187)
July 14, 2009

Committee's Request: Given that the Committee has restored funding for the Endocrine Disruptor Program, it expects the Agency to accelerate its schedule for completing validation of screening and testing assays. To that end, the Committee directs the Agency to report to Congress within six months of enactment of this Act, and annually thereafter, on:

(a) The number of pesticides that EPA has registered or reregistered, and the number of pesticides for which EPA has made either a reregistration eligibility decision, issued a tolerance, or conducted a registration review, since August 3, 1999;
(b) The number of such pesticides for which EPA has conducted or required testing for endocrine disrupting effects;
(c) The number of such pesticides for which EPA has considered and made a determination regarding endocrine disrupting effects;
(d) The number and identity of endocrine disruptor screening and testing assays EPA has validated;
(e) The number and identity of endocrine disruptor screening and testing assays EPA has not validated;
(f) The reasons each assay has not been validated.

The Committee encourages the Agency to expedite its validation of Tier 2 screening and directs the Agency to include in this report a schedule for completing validations for Tier 2 screening testing assays.

EPA's Report: EPA prepared its first Pesticide and Endocrine Disruptor Report to Congress in June 2008. This is the second annual report.

(a) The number of pesticides that EPA has registered or re-registered, and the number of pesticides for which EPA has made either a re-registration eligibility decision, issued a tolerance, or conducted a registration review, since August 3, 1999.

Agency Response: In preparing its response to this question, EPA considered the following types of regulatory actions it took during the period from August 3, 1999 through September 30, 2008 (the end of fiscal year 2008). The 2008 annual report covered the period from August 3, 1999 to September 30, 2007.

- Issuance of Reregistration Eligibility Decision documents (REDs);
- Issuance of initial registrations of pesticide products containing an active ingredient that did not appear in any previously registered pesticide;
- Issuance of Registration Reviews; and

- Issuance of new or amended registrations for a pesticide product for a use which required EPA either to establish or modify a tolerance or tolerance exemption.

The Agency then identified each unique active ingredient and inert ingredient associated with one or more of these regulatory actions. The total number of active and inert ingredients associated with these actions was 1,027. This total includes 414 chemicals subject to Reregistration Eligibility Decisions, 244 Registrations, 367 tolerance actions, and two Registration Reviews.

(b) The number of such pesticides for which EPA has conducted or required testing for endocrine disrupting effects.

Agency Response: The Agency routinely requires a pesticide applicant to submit data from a range of toxicity studies (see 40 CFR Part 158). The specific data requirements will vary depending on the active ingredients and their proposed use patterns. A number of these studies provide information on endocrine-related effects, including the rat 2-generation reproduction study, mammalian subchronic bioassays (in rats and dogs), mammalian chronic bioassays (in rats and dogs), cancer bioassays (in rats and mice), mammalian prenatal developmental studies (usually in rats and rabbits), the developmental neurotoxicity study (in rats), fish reproduction studies (usually in fathead minnow and rainbow trout), avian reproduction studies (usually in bobwhite quail and mallard duck), and an estuarine/marine invertebrate life cycle study (usually in mysid shrimp).

Of the 1,027 pesticides actions counted in the answer to question (a), the Agency received data from testing conducted by pesticide registrants for an estimated 600 pesticides that provided information on endocrine-related effects through one or more of the above referenced assays. Of the estimated 600 pesticides, 56 have been tested with the Endocrine Disruptor Screening Program (EDSP) mammalian Tier 2 assay (the rat 2-generation reproduction study based on the 1998 test guidelines). Another 33 have been tested with a full life cycle fish reproduction assay, 265 have been tested with an avian reproduction assay, and 72 with a mysid reproduction study. In most instances a single pesticide has been tested in more than one of these assays.

(c) The number of such pesticides for which EPA has considered and made a determination regarding endocrine disrupting effects.

Agency Response: EPA has evaluated all of the 1,027 pesticides actions counted in the answer to question (a) and has found that all meet statutory safety standards. Under the FFDCA, EPA has found that there is a reasonable certainty that no harm will result from exposure via the diet and other non-occupational pathways.

In associated registration decisions under FIFRA, EPA has concluded that the use of the pesticides will not pose unreasonable risks to the environment. In evaluating potential risks of a pesticide, EPA's regulatory decisions ensure protection of human health, wildlife and aquatic life from the most sensitive adverse effects observed in the information base provided through mammalian and wildlife studies such as those listed in (b). Of the 1,027 pesticides actions counted in the answer to question (a), endocrine-related effects were the most sensitive effects

observed within the information base for 70 pesticides and, therefore, used for regulatory purposes.

(d) The number and identity of endocrine disruptor screening and testing assays EPA has validated.

Agency Response: Eleven Tier 1 assays for the endocrine disruptor screening program have undergone the validation process, including peer review. They are as follows:

1. Uterotrophic
2. Hershberger
3. Female Pubertal
4. Adult Male
5. Male Pubertal
6. Androgen Receptor Binding
7. Aromatase
8. Amphibian Metamorphosis
9. Fish Screen
10. Steroidogenesis
11. Estrogen Receptor Binding

The Tier 1 screening battery proposed by EPA for the March 2008 review by the Scientific Advisory Panel (SAP) contained ten of the assays listed above (all except the adult male). In addition, EPA included in the proposed battery an estrogen receptor reporter gene assay that was validated by Japan and is being adopted as an Organization for Economic Co-Operation and Development (OECD) test method.

(e) The number and identity of endocrine disruptor screening and testing assays that EPA has not validated.

Agency Response: EPA has completed validation of all of the assays in the proposed Tier 1 battery.

(f) The reasons each assay has not been validated.

Agency Response: All assays in the proposed Tier 1 battery have been validated. In addition, EPA is currently working to validate several additional assays that have been suggested as alternative assays for the Tier 1 battery (e.g., recombinant estrogen and androgen receptor binding assays and androgen receptor transcriptional assay).

The Committee encourages the Agency to expedite its validation of Tier 2 screening and directs the Agency to include in this report a schedule for completing validations for Tier 2 screening and testing assays.

Agency Response: For Tier 2, EPA is in the process of validating the following four assays:

1. Avian 2-generation
2. Amphibian Growth/Reproduction
3. Fish 2-generation
4. Mysid 2-generation

If the need for Tier 2 testing is triggered for any of the chemicals initially identified for screening under Tier 1, testing can then be initiated. EPA accepts one of the Tier 2 assays for the endocrine disruptor program, the Mammalian 2-generation assay performed according to the 1998 guidelines, as valid. Validation for the remaining assays (Avian 2-generation, Amphibian Growth/Reproduction, Fish 2-generation, and Mysid 2-generation) is scheduled to be complete in 2011, at which time the assays will be ready for use.

Validation of these assays has required more time because they are longer term assays that take a year or more to complete. Validation must proceed stepwise with protocol optimization and standardization, followed by a demonstration that it can be transferred to another lab before the interlaboratory validation study can be run. Thus, these tests must be run sequentially, not in parallel.