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OPP Docket
Environmental Protection Agency Docket Center (EPA/DC), (28221T)
1200 Pennsylvania Ave. NW
Washington, DC 20460-0001

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**Regarding the draft Pollinator Ecological Risk Assessment: Imidacloprid
Registration Review**

DOCKET ID: **EPA-HQ-OPP-2008-0844**

The Georgia Cotton Commission (GCC) is a producer funded organization representing the cotton producers of Georgia. Georgia is the second largest cotton growing state with a \$960 million farm gate value and a total economic contribution of \$2.6 billion to the economy of Georgia. The Georgia cotton industry also accounts for over 20,000 jobs in our state. Agriculture is the largest industry in Georgia accounting for over 411,000 jobs and has a total economic impact of over \$74 billion to Georgia's economy.

On behalf of GCC, we are endorsing the following comments submitted by the National Cotton Council.

The National Cotton Council (NCC) appreciates the opportunity to comment on the Environmental Protection Agency's (EPA) draft "Pollinator Ecological Risk Assessment: Imidacloprid Registration Review". The NCC expresses disappointment in the release statements which seemed to imply conclusions to the public rather than encourage input. The NCC believes the release appears to have been rushed without careful completion of studies. The NCC also believes there are deficiencies in references, inaccurate representation of referenced material, use of worst case scenarios, and a lack of bee exposure support.

The NCC is the central organization of the United States cotton industry. Its members include producers, ginners, cottonseed processors and merchandizers, merchants, cooperatives, warehousemen and textile manufacturers. A majority of the industry is concentrated in 17 cotton-producing states stretching from Virginia to California. The NCC represents producers who cultivate between 10 and 14 million acres of cotton.

Annual cotton production, averaging approximately 16 to 20 million 480-lb bales, is valued at more than \$5 billion at the farm gate. The downstream manufacturers of cotton apparel and home furnishings are located in virtually every state. Farms and businesses directly involved in the production, distribution and processing of cotton employ more than 230,000 workers and produce direct business revenue of more than \$27 billion. Accounting for the ripple effect of cotton through the broader economy, direct and indirect employment surpasses 420,000 workers with economic activity well in excess of \$120 billion. In addition to the cotton fiber, cottonseed products are used for livestock feed, and cottonseed oil is used as an ingredient in food products as well as being a premium cooking oil.

The NCC appreciates the opportunity to provide more specific detailed comments to the Agency's document titled "Preliminary Pollinator Assessment to Support the Registration Review of Imidacloprid" dated January 4th, 2016.

Tone of Press Release

The NCC believes message in the public announcement tarnished the reputation of agriculture before verification that the draft assessments has reached valid conclusions. The NCC expresses disappointment that EPA chose to publicly report findings of this report without emphasizing it was in draft form and subject to refinement. To further explain this point, the NCC notes Assistant Administrator Jim Jones' press release announcing the availability of the document and highlighting findings that citrus and cotton may have residue levels of imidacloprid in pollen and nectar above the threshold level. The NCC believes, based on the document, studies and refinements of the risk assessment are not completed, and risk-benefits have not been examined. The release without complete study results suggests the processed was rushed.

Inaccurate Representation of Material

EPA explains use of a USDA document regarding attractiveness of crops (Attractiveness of Agricultural Crops to Pollinating Bees, www.ree.usda.gov/ree) but EPA misrepresents the document by utilizing an outdated versions that contained errors with regards to bee's attractiveness to cotton. The NCC is aware that the referenced document originally contained error with respect to the attractiveness of cotton. The NCC is also aware that USDA communicated this information to EPA and that EPA participated on the Crop Attractiveness Review Board (CARB) that formally reviewed and approved the request for corrections. It is perplexing, given the emphasis placed on this information and participation by the EPA's scientists, why EPA utilized and publicized a known inaccurate version of this document. Even to speculate that EPA had prepared this report prior to the CARB approval for corrections does not justify the release of known inaccuracies. Of particular concern, the EPA seems to have used the inaccurate information as the exposure component of the risk assessment. Page 63 states that tables 4-6 to 4-8 "summarize the potential exposure pathways..." The NCC is not clear how or if EPA used these "potential exposure pathways" in the assessment. Clarification is needed regarding the use of the tables.

Studies Not Completed

EPA notes expectation of a study in cotton expected to be completed in 2016 that may refine the cotton risk assessment. It would seem reasonable to question why EPA moved forward with the release of this draft prior to the completion of studies underway. The unfortunate reality is that most of the general public do not review risk assessment documents, but they form an opinion based on EPA's announcement.

2.7 Protection Goals and Assessment Endpoints (pp 27-28)

The NCC appreciates the Agency's clarification of goals and emphasis on the FIFRA directive to EPA to "weigh ecological risks associated with pesticide products against the benefits of that product". The NCC urges EPA to include producers in the risk-benefit process. The NCC is aware that many technological advancements in cotton production have greatly reduced the amount of insecticide use, and the cotton industry continues to seek additional avenues to reduce costly inputs. Unfortunately, piercing sucking insect pests continue to challenge economical cotton production in the US. Imidacloprid and other registered neonicotinoid products provide unique control of piercing sucking insect pest with the most advanced IPM accomplishments available. In recognizing the benefits of these products, EPA should carefully evaluate all social and environmental benefits (including resistance management impacts) that have led to the rapid adoption of these products into IPM programs for multiple commodities, both agricultural and non-agricultural.

Exposure Aspects

Page 68 paragraph 1 refers to the "tiered approach that begins with model-generated (based on consumption rates of pollen and nectar and application rate) or default estimates of exposure and laboratory toxicity data at the individual level (Tier I). Exposure is highly critical to the risk assessment. A toxic product has no relevance if there is no exposure. The NCC remains concerned the EPA has mis-represented exposure.

Additionally, page 68 paragraph 2, explains a Tier 1 test that is based on consumption rates of honey bee 5-day old larvae (for larval studies) because the 5-day old larvae consume the most food compared to other life stages. Similarly, for adults the consumption is based on nectar foraging bees because they consume the greatest amount of nectar. It appears the paragraph implies nurse bees are used for adult pollen consumption. In all cases, EPA has assumed the highest consumer to represent other stages and castes. The underlying assumption is that all "nectar" or "pollen" fed upon contains the pesticide treatment and that the maximum amount possible to consumed. Tier 1 takes such an extreme approach, its only value is quick dismissal of extremely harmless materials. EPA notes "empirical data can be used to refine conservative exposure estimates and reduce uncertainties associated with the Tier 1 exposure estimates by providing direct measurements of pesticide concentration resulting from actual use settings" (p. 71, paragraph 2). However, NCC points out invalid assumptions of exposure are not addressed by quantitative measurement of pesticide on plant parts. EPA continues to place emphasis on toxicity assuming exposure.

The EPA begins reports of cotton studies on page 73-74. The EPA notes a foliar applied study conducted in CA. The EPA report states “due to the lower annual application rate and lack of pollen data, the acute and chronic EEC of 66 and 56 ppb, respectively, are considered underestimates of the potential risk associated with foliar application on cotton.” Again, the statement centers on exposure assumptions.

EPA notes the study period to be 2008-2010, and notes 2008 and 2009 also had “soil applications” to other crops (noted as chemigation in table summary page 76) at rates (0.18-0.38 lb ai/A) of far greater than the foliar application to cotton (0.06 lb ai/A). Given that these applications coincide with the same years, it would appear the two distinct crops were produced from the field and results likely are confounded by residual of chemigation application. It is also noteworthy that the sample of nectar was taken once, 6 days after the foliar application. Under the circumstances, it would have been helpful to obtain a pre-sample to verify the level before the foliar application.

The second reference to cotton, page 78 paragraph 3, identifies a study with a single soil application made at 0.33 lbs. ai/A. Again, EPA includes pollen as an exposure consideration. The maximum nectar residue samples were 3 – 3.5 fold higher than those of pollen and extra-floral nectaries. The NCC would ask for clarification of where the nectar sample were obtained but assumes the sample were taken from flower nectaries. The NCC is aware previous research has demonstrated the flower nectaries are not easily utilized and exposure related to the flower nectaries lacks sufficient verification. Studies indicate the short tongue limits the utilization of floral nectar.

References

The NCC is aware of a study involving three universities with a focus on seed treatments of imidacloprid in cotton, corn, and soybeans (Stewart et. al. 2014, Environmental Science and Technology, Potential Exposure of Pollinators to Neonicotinoid Insecticides from the Use of Insecticide Seed Treatments in the Mid-Southern United States). The NCC is aware that EPA had requested and received a briefing of this research, yet the EPA does not include the extensive set of data in this risk assessment. The NCC urges EPA to include the study which is highly relevant to this risk assessment.

The NCC requests clarification regarding the reference Gill 2010 (page 150, last paragraph). The NCC is not certain if the reference was omitted or if the reference should be Gill 2012.

Conclusion

The NCC would urge the EPA to consider the sensitivity of announcements in order to avoid misleading the general public with draft findings.

The NCC believes the overall implications related to cotton are not validated because of improper exposure assumptions. The NCC believes the preliminary report identifies some applications that pose potential concerns that need careful consideration with appropriate exposure to evaluate the risk. The NCC is hopeful the EPA will complete

Tier III studies that assess field conditions with inclusive real-world exposure under choice environment rather than toxicity based data with assumed presence of bee exposure. Additionally, the NCC would urge EPA to provide additional comment opportunity inclusive of Tier III studies and corrected references (particularly the USDA Crop Attractiveness reference) prior to any final risk decision.

Similarly, the NCC urges EPA to include producers in the finalization of any risk-benefit process. The NCC reiterates the importance of the neonicotinoid chemistry for control of piercing sucking pests, and urges the EPA to recognize the limited chemistries that provide control of these pests. Loss of additional chemistries continues to decrease rotation of modes of action and encourage development of resistant pests.

The NCC appreciates the opportunity to provide these comments to the Docket ID No. EPA-HQ-OPP-2008-0844, Pollinator Ecological Risk Assessment: Imidacloprid Registration Review.

Sincerely,

A handwritten signature in black ink that reads "Mike Lucas". The signature is written in a cursive, flowing style.

Mike Lucas
Chairman
Georgia Cotton Commission