APPENDIX C: Memo from the Biological and Economic Analysis Division (BEAD) Regarding the Use Intensity Map for Cyfluthrin.

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

DEC 05 2012

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MEMORANDUM

SUBJECT: Cyfluthrin and Deltamethrin Revised Use Intensity Maps by Crop Reporting District (PC codes: 128831, 097805)

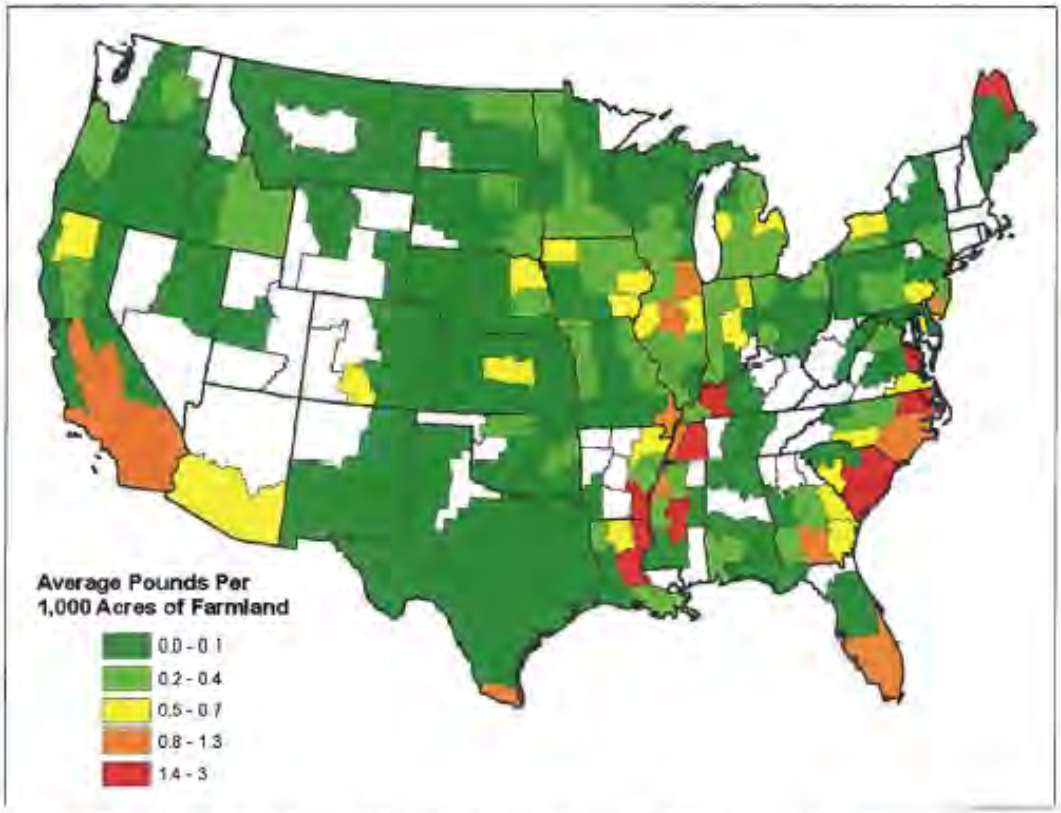
FROM: Monisha Kaul, Biologist
Biological Analysis Branch
Biological and Economic Analysis Division (7503P)

THRU: Arnet Jones, Chief
Biological Analysis Branch
Biological and Economic Analysis Division (7503P)

TO: Rochelle Richardson, Executive Assistant
Environmental Fate and Effects Division (7507P)

Below are the maps showing the use intensity for cyfluthrin and deltamethrin from 2007-2011 that you requested (Figures 1 and 2). No data were available for beta-cyfluthrin. Use intensity is expressed as the pounds active ingredient applied per acre of land in farms.

Figure 1. Cyfluthrin Usage by Crop Reporting District (2007-2011).



This is a map of agricultural pesticide usage at the Crop Reporting District (CRD) level prepared by BEAD for use in the Environmental Fate and Effects Division documents. These maps are used to help visualize where the pesticide being considered is most likely to be used and can be helpful in scenario selection and placing the exposure assessment in context. CRDs are boundaries created by USDA NASS which are aggregates of counties. Pesticide usage is displayed as average pounds (for the years 2007-2011) per 1,000 acres of farmland in a CRD to normalize for the variation in farmland between CRDs. Farmland acreage was obtained from USDA (2007). Farmland or "land in farms" is defined as follows:

> The acreage designated as "land in farms" consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator's total operation. Large acreages of woodland or wasteland held for nonagricultural purposes were deleted from individual reports during the edit process. Land in farms includes CRP, WRP, FWP, and CREP acres[1]. Land in farms is an operating unit concept and includes land owned and operated as well as land rented from others. Land used rent free was reported as land rented from others. All grazing land, except land used under government

[1] CRP: Conservation Reserve Program, WRP: Wetland Reserve Program, FWP: Farmable Wetlands Program, CREP: Conservation Reserve Enhancement Program

permits on a per-head basis, was included as "land in farms" provided it was part of a farm or ranch. Land under the exclusive use of a grazing association was reported by the grazing association and included as land in farms. All land in American Indian reservations used for growing crops, grazing livestock, or the potential of grazing livestock was included as land in farms. Land in reservations not reported by reservation, individual American Indians or non Native Americans was reported in the name of the cooperative group that used the land. In many instances, an entire American Indian reservation was reported as one farm (USDA, 2007).

Usage is based on private market surveys of pesticide use in agriculture (Proprietary Data, 2007-2011). The survey data are limited to the states that represent the top 80-90% of acreage for the individual crops, therefore, use may be occurring in regions outside the scope of the survey. CRDs showing no usage of pesticides may be due to either the lack of pesticide use in the region or non-participation in the agricultural surveys. In addition, across the years, there may be variations in the specific crops included in the CRD survey. This may result in a lower annual average for the CRD.

This map displays ratio data (i.e., average pounds per 1,000 acres of farmland) summarized at a very high-level. Readers are strongly cautioned against trying to over interpret the map without examination of the underlying data. The underlying data may explain some of the many reasons that a Crop Reporting District may have a high value for a particular active ingredient such as significant acreage (compared with the CRD as a whole) of a crop or crops with a high application rate and frequency of application.

The reader should pay particular attention to the figure legends and realize that a map prepared for a particular chemical is not directly comparable to a map prepared for a different chemical. Scale and units of measurement do matter and may be different between maps.

Sources:

Proprietary Data, 2007-2011.

USDA, 2007. Census of Agriculture. Online: http://www.agcensus.usda.gov/Publications/2007/index.asp.