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Subject: Review of Fipronil Runoff Studies

To: Ann Sibold
Insecticides Branch
Reregistration Division (7508P)

From: James Hetrick, Ph.D., Senior Scientist
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Environmental Fate and Effects Division (7507P)

James A. Hetrick 5/14/08
Fangmei Khan for Nancy Andrews 5/16/08

Data evaluation records (DERs) of registrant submitted runoff studies for fipronil are attached. These studies were submitted to support condition registrations of fipronil. Several of the studies are deemed as supplemental data because the registrant did not provide a complete description of storage stability studies. These runoff studies may be upgraded with submission of a complete description of the storage stability studies. Below is a list of the attached DERs

Lee, Robert. 2001. Surface Water Monitoring for Residues of Fipronil in Primary Use Areas in the United States. Sponsored by Aventis CropScience, Research Triangle Park, NC. Study Identification No. 98V15506.

Lee, Robert. 2005. Chipco Topchoice® Granular Insecticide: Fipronil Natural Runoff and Surface Water Monitoring Study in Mecklenburg County, NC. Sponsored by BayerCrop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS and AgVise Laboratories, Northward, ND. MRID 46433904.

Jackson, Scott and Huns Nejad. 2005. Monitoring Fipronil Residues in Surface and Runoff Water at Twenty Locations Throughout the Midwest Corn Belt. Unpublished study performed and sponsored by BASF, Research Triangle Park, NC. 2005/5000001.

Braun, D., J. Cappy, and J. W. White. 2004. Effect of Vegetative Buffer Strips on Fipronil Runoff Losses from Warm-Season CHIPCO Choice Treated Turfgrass and Simulated Rainfall. Sponsored by BayerCrop Science, RTP, NC. Performed by Stone Environmental,

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Montpelier, VT; White Environmental, Lexington, KY; Bayer CropSciences, RTP, NC; and AgVise Laboratories, Northward, ND. MRID 4690301.

Braun, D. C., J. J. Cappy, and J. W. White. 2004. Effect of Vegetative Buffer Strips on Fipronil Runoff Losses from Cool Season CHIPCO Choice Treated Turfgrass under Simulated Rainfall. Sponsored by Bayer Crop Science, RTP, NC. Performed by Stone Environmental, Montpelier, VT; White Environmental, Lexington, KY; Bayer CropSciences, RTP,NC ; and AgVise Laboratories, Northward, ND. MRID 46490302.

Braun, D., J. Cappy, and J. W. White. 2004. Effect of Vegetative Buffer Strips on Fipronil Runoff Losses from Tall Fescue Under Simulated Rainfall. Sponsored by BayerCrop Science, RTP, NC. Performed by Stone Environmental, Montpelier, VT ; White Environmental, Lexington, KY; Bayer CropSciences, RTP, NC; and AgVise Laboratories, Northward, ND. MRID 46490303.

Daussinm, S. 2004. Chipco Topchoice® Granular Insecticide: Fipronil Surface Water Monitoring Study at a Recreational Pond Setting in Ocala, FL. Sponsored by Bayer Crop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS and AgVise Laboratories, Northward, ND. MRID 46490304.

Hurst, Kenneth M. 2004. Chipco Topchoice® Insecticide: Surface Water Runoff Monitoring Study at a Residential Setting in Mecklenburg County, NC. Sponsored by BayerCrop Science, RTP, NC. Performed by BayerCrop Science, RTP, NC and AgVise Laboratories, Northward, ND. MRID 46490305.

Mosier, Dwight G. 2005. Fipronil Water Monitoring Study following Application of Chipco Topchoice® to a Golf Course Turf at College Station, Texas. Sponsored by Bayer Crop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS; Biological Research Service, College Station, TX; AgVise Laboratories, Northward, ND; and Stone Environmental, Inc. Montpelier, VT. MRID 46733902.

Wyatt, Daryl R. 2005. Fipronil Esturaine Monitoring Study following an Application of Chipco Topchoice® to a Golf Course at Gulf Breeze, Florida. Sponsored by BayerCrop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS and AgVise Laboratories, Northward, ND. MRID 46733903.

Mosier, Dwight G. 2005. Fipronil Water Monitoring Study following Application of Chipco Topchoice® to a Golf Course Turf at Pickens, Arkansas. Sponsored by Bayer Crop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS, G & H Associates, Inc., Tillar AR, , AgVise Laboratories, Northward, ND, and Stone Environmental, Inc. Montpelier, VT. MRID 46733905.

Tang, Z. and T.S. Ramanarayanan. 2006. Degradation of Fipronil and Its Major Metabolites Following Application of Chipco TopChoice® Leachate to Outdoor Simulated Ponds: Kinetics modeling. Sponsored by Bayer Crop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS, MRID 46936101.

Tang, Z. and T.S. Ramanarayanan. 2006. Modeling Fate and Transport of Granular Formulations to Turf: Calibration of Small-Scale Runoff Studies. Sponsored by Bayer Crop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS, MRID 46936102.

Tang, Z. and T.S. Ramanarayanan. 2006. Modeling Fate and Transport of Fipronil and Its Metabolites in Surface Water Following Application of Chipco Topchoice® to Turf. Sponsored by Bayer Crop Science, RTP, NC. Performed by Bayer Crop Science, Stillwell, KS, MRID 46936103.