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

PC Code: 044309
DP Barcode: D374485

MEMORANDUM

DATE: November 19, 2010

SUBJECT: EFED Review of Submitted Bee Health Data for Clothiandin (PC Code 044309)

TO: Kable Davis, Risk Manager Reviewer
Venus Eagle, Risk Manager
Insecticide Branch
Registration Division (7505 P)

FROM: Christina deMariano
Environmental Risk Branch 5
Environmental Fate and Effects Division (7507 P)

THRU: Mah Shamim, Branch Chief
Environmental Risk Branch 5
Environmental Fate and Effects Division (7507P)

EFED has reviewed the following study submitted for bee health data.

MRID 47975301. Luckmann, J. (2010). Field survey on guttation of maize Seedlings under Agronomic use conditions in Austria and assessment of the relevance of Guttation fluid for honeybees. Project Number: R09105, BCS Activity ID EBTIL065. Submitted by Bayer CropScience. 160 p.

Summary of findings:

The author concluded that guttation of maize plants seems a quite regular occurring phenomenon in the assessed regions of Austria. Exudation of guttation fluid frequently coincided with honeybee flight activity. Initial residue levels of systemic seed treatment insecticides in guttation fluid ranged between 100 to 200 mg/L and declined to levels below 0.1 mg/L within 5 weeks. The present study shows the high plasticity of honeybee colonies. Though all colonies had low population strength at the start of the experiment they developed reasonably well. Even a transitory strong starvation stress as in the Jennersdorf region was not ultimately detrimental to the majority of managed colonies. Low population strength in the early experimental phase, the suboptimal forage conditions and some infestation with diseases have made these colonies most

likely more susceptible to chemical stress factors than typical commercial beehives in landscapes with appropriate apicultural conditions. Nevertheless, there are no indications that an aggravated exposure of honeybee colonies to guttating maize seedlings grown from seeds treated with Poncho® or Poncho Pro® will impact colony development.

From this study it is concluded that an exposure of bee colonies to guttating maize fields sown with seeds treated with Ponchos or Poncho Pro® does not result in harmful effect on the colony level. The exposed honeybee colonies were able to develop properly and even recovered from highly stressful conditions of food scarcity.