

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Pesticides Management
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Alexander B. Grannis
Commissioner

August 4, 2009

CERTIFIED MAIL (Co. No. 352)
RETURN RECEIPT REQUESTED

Mr. Richard Carver
DuPont Crop Protection
PO Box 30
Newark, DE 19714

Dear Mr. Carver:

Re: Registration of the New Active Ingredient Chlorantraniliprole (Active Ingredient Code 090100) Contained in DuPont Coragen Insect Control (EPA Reg. No. 352-729) and DuPont Altacor Insect Control (EPA Reg. No. 352-730).

The New York State Department of Environmental Conservation (Department) has evaluated your application and supplemental material received to date in support of registration of the above-mentioned products. DuPont Coragen Insect Control, DuPont Altacor Insect Control, and DuPont Acelepryn Insecticide contain the active ingredient chlorantraniliprole, which is an active ingredient not previously registered in New York State. **The Department is postponing the registration decision for DuPont Acelepryn Insecticide (EPA Reg. No. 352) at this time to allow DuPont Crop Protection (DuPont) sufficient time to prepare updated product labeling.**

Chlorantraniliprole is a member of the anthranilic diamine class of insecticides and acts on insect ryanodine receptors, thereby interrupting normal muscle contraction. It acts against a wide range of insects including many species of moths, leafrollers, armyworms, caterpillars, white grubs, and beetles. Applications should be timed to the most susceptible insect state, typically at egg hatch or newly hatched larva.

DuPont Coragen Insect Control (EPA Reg. No. 352-729) contains 18.4% chlorantraniliprole and is formulated as a suspension concentrate. The labeled use sites are brassica crops, cucurbit vegetables, fruiting vegetables, and leafy vegetables. The product label states that DuPont Coragen Insect Control may be applied by ground (foliar or drip chemigation) and aerial application. The maximum use rates are 0.098 pounds of active ingredient per acre per application and 0.2 pounds of active ingredient per acre per year. Subsequent to the original application, DuPont submitted revised labeling for the Coragen product proposing additional methods of application, including in-furrow spray at planting, transplant water treatment, hill drench at planting, surface band at planting, and soil shank injection at planting.

DuPont Altacor Insect Control (EPA Reg. No. 352-730) contains 35.0% chlorantraniliprole and is formulated as a water dispersible granule. The labeled use sites are grapes, pome fruits, stone fruits, cotton, potatoes, and tree nuts. The product label states that DuPont Altacor Insect Control may be applied by ground or aerial application. The maximum use rates are 0.099 pounds of active ingredient per acre per application and 0.2 pounds of active ingredient per acre per year.

DuPont Acelepryn Insecticide (EPA Reg. No. 352-731) contains 18.4% chlorantraniliprole and is formulated as a suspension concentrate. The labeled use sites are turf (including golf course and sod farms), and ornamentals (exterior landscapes and interior plantscapes). The product label states that DuPont Acelepryn Insecticide may be applied by broadcast spray, soil injection, soil drench, and bark application. Application via aerial or chemigation methods are prohibited as is application in commercial nurseries and greenhouses. The maximum use rates for DuPont Acelepryn Insecticide are 0.20 pounds of active ingredient per acre per application and 0.50 pounds of active ingredient per acre per year.

The application was determined to be complete for purposes of technical review on July 29, 2008. Pursuant to the review time frames set forth in Environmental Conservation Law §33-0704, a decision date of December 26, 2008 was established. On December 4, 2008, Department staff indicated by email to DuPont staff that the Department would not be supporting registration at such time due to concerns regarding environmental fate. On December 11, 2008, a response to the Department's concerns was received by email from DuPont. On December 23, 2008, DuPont requested, and was granted, a waiver of the legislatively mandated decision date of December 26, 2008. This waiver was requested to allow the Department sufficient time to review the additional materials submitted by DuPont.

Upon review of the additional materials, Department staff continued to have unmitigated concerns regarding the potential of chlorantraniliprole to negatively affect the groundwater resources of New York State. A technical issues letter, dated January 26, 2009, was sent to DuPont indicating the Department's unresolved concerns. In response to the letter, DuPont staff requested a meeting at the Department's convenience. A meeting between Department staff and DuPont staff was held on March 11, 2009. Discussion of the Department's groundwater modeling was conducted at this meeting. Subsequent to this meeting, the Department received email correspondence containing additional documents not previously submitted. The Department's groundwater staff reviewed the additional documents but found no information beyond what was obtained from previously submitted material.

In an effort to obtain a full understanding of the risks and benefits associated with the proposed registration, Department staff requested another meeting with representatives of DuPont, which took place on April 22, 2009. At this meeting, DuPont staff presented a comparison of the characteristics of chlorantraniliprole versus currently registered insecticides with respect to human health and non-target organisms/ecotoxicity. In addition, Department staff requested information regarding current and future application sites, the typical and maximum application rates at each of these sites, projected market share for crop groups/use sites, and any available efficacy data for specific pests (especially ornamental and tree pests). DuPont provided the above-mentioned information by electronic mail on May 6, 2009. A thorough and systematic evaluation of all available information has been performed by the Department and the New York State Department of Health. The risk assessments produced as a result of these evaluations are shown below.

Human Health Risk Assessment:

Neither chlorantraniliprole nor the formulated products Coragen/Acelepryn and Altacor were very toxic in acute oral, dermal or inhalation exposure studies in laboratory animals. In addition, neither the active ingredient nor the formulated products were irritating to skin and eyes (tested on rabbits) nor skin sensitizers (tested on guinea pigs).

Both acute and subchronic neurotoxicity studies were conducted on chlorantraniliprole. No effects were reported in an acute oral neurotoxicity study in rats at dose levels up to 2,000 milligrams per kilogram body weight (mg/kg). In a 90-day rat neurotoxicity study, dietary administration of chlorantraniliprole did not have any effects at dose levels of 1,313 in males and 1,586 in females, the highest doses tested. No signs of neurotoxicity were noted in this study.

Chlorantraniliprole caused some toxicity in mice, but not dogs or rats in chronic feeding studies. In a one-year dog feeding study, chlorantraniliprole did not cause any effects at doses of 1,164 mg/kg/day and 1,233 mg/kg/day in males and females, respectively. Chlorantraniliprole also did not cause any toxic effects in a chronic feeding/oncogenicity study in rats at doses of 805 mg/kg/day for males and 1,076 mg/kg/day for females. In a chronic feeding/oncogenicity study in mice, the presence of eosinophilic foci accompanied by hepatocellular hypertrophy and increased liver weight were reported in males at a dose of 935 mg/kg/day; the no-observed-effect-level (NOEL) was 158 mg/kg/day. Chlorantraniliprole did not cause any effects in female mice at a dose level of 1,155 mg/kg/day, the highest dose tested. The U.S. Environmental Protection Agency (U.S. EPA), Office of Pesticide Programs established a reference dose (RfD) for chlorantraniliprole of 1.58 mg/kg/day based on the NOEL from this study and an uncertainty factor of 100. This RfD has not yet been adopted by the U.S. EPA's Integrated Risk Information System (IRIS).

Chlorantraniliprole did not cause any effects in developmental toxicity studies or in a multi-generation reproduction study in laboratory animals. Neither maternal nor developmental effects were noted in developmental toxicity studies in rabbits and rats at dose levels up to 1,000 mg/kg/day, the highest dose level tested. Similarly, no parental, reproductive, or offspring toxicity was observed in a multi-generation reproduction study in rats at dose levels up to 1,563 mg/kg/day in males and 1,886 mg/kg/day in females (the highest doses tested).

Chlorantraniliprole did not cause oncogenic effects in rat or mouse chronic feeding studies. This compound was also negative in a number of genotoxicity studies. The U.S. EPA classified chlorantraniliprole as "not likely to be carcinogenic to humans."

The U.S. EPA did not conduct a worker exposure and risk assessment for these chlorantraniliprole products. This was because the toxicological database does not indicate systemic toxicity concerns for short-term and intermediate-term dermal and inhalation exposures. Similarly, the U.S. EPA concluded that post-application risks to workers or residents, including children, would be negligible given the low toxicity of chlorantraniliprole.

The U.S. EPA established tolerances for chlorantraniliprole residues in or on a number of crops (Federal Register 73 (No. 89): 25,518–25,524; May 7, 2008). The chronic population adjusted dose (cPAD) for chlorantraniliprole is 1.58 mg/kg/day and has the same basis as the RfD. The U.S. EPA

estimated that the chronic dietary exposure from food and drinking water to chlorantraniliprole residues would be less than 1 percent of the cPAD for the general population and all population subgroups. This chronic exposure analysis is based on the conservative assumptions that 100 percent of the crops are treated and that these treated crops contain tolerance level residues.

We briefly reviewed the environmental fate data on chlorantraniliprole. These data indicate that this chemical may have the ability to leach through certain soil types and contaminate groundwater; the adsorption coefficients (K_{oc}) in various soil types were reported to be between 153 and 509. These values suggest that chlorantraniliprole may have high mobility through some soils. In addition, chlorantraniliprole is persistent (soil half-lives ranging from 228 to 924 days) and extended use is expected to cause accumulation of residues in soil from year to year.

There are no chemical specific federal or New York State drinking water/groundwater standards for chlorantraniliprole. Based on its chemical structure, this chemical falls under the 50 microgram per liter ($\mu\text{g/L}$) New York State drinking water standard for "unspecified organic contaminants" (10 NYCRR Part 5, Public Water Systems).

The available information on chlorantraniliprole and the formulated products Coragen Insect Control, Altacor Insect Control, and Acelepryn Insecticide indicates that they are not very acutely toxic in laboratory animal studies. Chlorantraniliprole is not carcinogenic, genotoxic, neurotoxic, teratogenic nor did it cause reproductive effects. In addition, the expected exposure from the labeled use of the formulated products should not pose a significant risk to the general public or to workers. However, we have some concern about the leaching potential of chlorantraniliprole and its degradates to contaminate groundwater and drinking water. While these concerns may be somewhat offset by the relatively low application rate of Coragen Insect Control, Altacor Insect Control, and Acelepryn Insecticide (90.7 to 226.8 g chlorantraniliprole/acre/year maximum), NYS DEC should consider whether mitigative measures are necessary before making a final decision on registration of this product in New York State.

Environmental Fate Risk Assessment:

Solubility: Chlorantraniliprole has a solubility at pH 7 of 1.023 mg/L.

Hydrolysis: Chlorantraniliprole is stable to hydrolysis in pH 5 and 7 buffer solutions. In pH 9 buffer solution, it undergoes rapid hydrolysis. The major degradation product is IN-EQW78.

Aqueous Photolysis: Chlorantraniliprole has a half-life of 0.37 days in a pH 7 buffer solution and 0.31 days in a natural water.

Soil Photolysis: In a water/sediment system, chlorantraniliprole had photodegradation half-lives of 22 days in a loamy sand sediment system and 0.9 days in a sandy loam sediment system. Major degradation products at pH 7 were IN-LBA22 at 52.1%, IN-LBA24 at 90.2% and IN-LBA23 at 40%.

Aerobic Soil Metabolism: Chlorantraniliprole had half-lives of 228-924 days at 25°C. No major degradation products were found at 25°C. Staff reviewed the global work share document but were unable to determine which half-life correlated to a particular soil type because the EPA recalculated the half-lives to be representative of the total extractable fraction in soil.

The EPA's Ecological Risk Assessment did not mention degradates, but the global work share document indicated that IN-EQW78 was found at >10% in the studies.

Aerobic Aquatic Metabolism: In a sand and loam sediment water system, chlorantraniliprole was persistent for 125-231 days. Major degradation product IN-EQW78 was found at 30.2%.

Anaerobic Aquatic Metabolism: The half-life in a flooded loam soil (pH 7.0, %OC 0.87) was 208 days.

Adsorption/Desorption Studies: In a loamy sand from Spain (pH 7.7, % OC 0.5), the K_{oc} was 153; in a silty clay loam (pH 5.7, % OC 1.7) the K_{oc} was 509; in a sandy loam from Mississippi (pH 6.7, % OC 0.6) the K_{oc} was 272, in a loamy sand from Georgia (pH 5.9, % OC 0.2) the K_{oc} was 526 and in a loam soil from Italy (pH 7.7, % OC 1.3) it was 180. The EPA's Ecological Risk Assessment did not mention degradates, but the global work share document indicated that IN-EQW78 had a K_{oc} of 22196 in a loamy sand soil (pH 6.7, %OC 0.5).

Field Dissipation: Field studies done in Minnesota (loam, pH 6.7, % OM 4.3) and Prince Edward Island, Canada (sandy loam pH 5.96 and % OM 3.7) showed half-lives ranging from 210 to 274 days with biphasic degradation kinetics. No major metabolites were noted. There were no detections of the parent compound below 12 inches.

Radiolabeled field studies done in California and Texas showed half-lives ranging from 181-222 days. In the Texas study, major degradate IN-EQW78 was found at 42%. In the California study, it was found at 29%.

Nonradiolabeled field studies had half-lives of 52 days in California (IN-EQW78 found at 21%), 206 days in Texas (IN-EQW78 found at 20%) (pH 8.2, % OM 1.1), 697 days in New Jersey (pH 6.6, % OM 1.7) and 1130 days in Georgia (IN-EQW78 found at 12%) (pH 6.5, % OM 0.6).

Degradates: IN-EQW78 had a half-life of 651 days in a loamy sand soil. IN-EQW78 had a K_{oc} of 22196 in a loamy sand soil (pH 6.7, %OC 0.5).

Computer Modeling: Initially, modeling was not practical because the application materials did not include a correlation of the soil types with their respective half-lives. The submission of additional materials by DuPont Crop Protection on December 11, 2008 provided the necessary correlation. The Marietta sandy loam was determined to have a grain size distribution closest to the Riverhead sandy loam soil on Long Island. Modeling by the Department on Riverhead type soils, using a rate of 0.5 lb ai/a/yr, the sandy loam K_{oc} of 526 and half-life of 888.6 days projected accumulation up to about 11 ppb. Modeling the lower agricultural-use application rate of 0.2 lb ai/a/yr, the sandy loam K_{oc} of 526 and the half-life of 888.6 days, the model projected increasing concentrations, reaching over 4 ppb at the end of the 10 year modeling period.

Computer modeling of the degradate IN-EQW78 using a half-life of 651 days, a K_{oc} of 22196, and assuming a high degradation rate of 40% (no rate was provided), the model predicted no leaching of the degradate.

Label Statements: The following statements appear on the label:

Surface Water Advisory - This product may contaminate water through runoff. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with a shallow water table are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.

Ground Water Advisory - This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

EPA Comments: Chlorantraniliprole is persistent and mobile in terrestrial and aquatic environments. Extended chlorantraniliprole use is expected to cause accumulation of residues in soil from year to year. Major routes of dissipation are expected to be alkaline-catalyzed hydrolysis, photodegradation in water, leaching and runoff.

Environmental Fate Summary: DuPont Crop Protection submitted additional information in response to the concerns presented by engineering geology staff in their original technical review of the active ingredient chlorantraniliprole. This additional information did not provide further verification that use of this active ingredient over time will not impact groundwater. A risk/benefit evaluation with mitigative measures must be performed prior to any registration decision for use of this active ingredient in New York State.

Ecological Effects Risk Assessment:

The Department's Bureau of Habitat (BOH) has completed an ecological risk assessment of the new active ingredient chlorantraniliprole.

Toxicity and Environmental Fate: Chlorantraniliprole has low to slight toxicity to all vertebrates and plants for which data was submitted. Both terrestrial and aquatic invertebrate sensitivity varies substantially across the variety of taxa for which data were reported.

Chlorantraniliprole can be characterized as persistent in both terrestrial and aquatic environments and mobile post-application. Extended use will result in accumulation of residues in soil from year to year. The primary routes of dissipation will be leaching, runoff, photodegradation in water, and hydrolysis under alkaline conditions.

Exposure Modeling: Standard BOH terrestrial and aquatic non-target screening modeling was conducted for maximum allowed application rates stated on each of the submitted product labels.

At the highest rates allowed no vertebrate toxicity thresholds were exceeded.

The labels for Altacor and Coragen both include instructions for aerial applications. The Pondtox Direct

Application module shows that a single application at the lowest label rate made directly to the surface of a water body results in active ingredient concentrations lethal to Daphnia. The combination of chlorantraniliprole toxicity and persistence exceed BOH criteria for prohibiting aerial application.

Runoff simulations of post-application mobility were conducted for maximum application rates given on the three end-use product labels.

Chlorantraniliprole is rather persistent in the environment. Terrestrial Field Dissipation study half-lives ranged from 52-1130 days with a geometric mean of 258 days. Using the Halflife module applications were simulated for a multiple-year period. After a period of repeated applications on a yearly basis soil residue levels reach a plateau generally around the 3rd or 4th season of use. These soil residue levels were then used as input for the Pondtox runoff module to examine potential impacts to aquatic non-target organisms from extended, regular chlorantraniliprole use.

Model Results and Risk Assessment: As stated previously, the initial conservative screening assessments suggest no direct impacts to terrestrial or aquatic vertebrates when these products are used as labeled.

With use over a single season the risks to aquatic invertebrates increase with each application. Initial applications are not likely to negatively impact aquatic systems. As labeled, seasonal maximum rates are reached, however, runoff transported chlorantraniliprole residues are sufficient to affect aquatic systems through invertebrate impacts.

The parent compound's persistence in the field will ensure that any precipitation event that produces runoff in use areas is likely to impact aquatic areas to some degree. Invertebrates inhabiting shallower near-shore areas will be particularly impacted with effects likely extending to organisms dependant on those invertebrates for food.

Mitigation: To avoid the impacts to aquatic resources from direct application, aerial applications must be removed from the end-use product labels.

In addition, impacts to aquatic habitat from chlorantraniliprole transported in runoff can be reduced by prohibiting use in areas near surface waters. Therefore, BOH recommended an exclusionary use buffer of 100 feet around surface waters for all products containing the active ingredient chlorantraniliprole. As a result of this recommendation, DuPont petitioned the Department to allow reduced buffer zones on golf courses due to the fact that many golf courses contain non-natural bodies of water. These man-made water features are often wholly contained within the confines of the golf course with no outlet to Waters of the State. BOH agrees that a 25 foot exclusionary buffer around surface water features near greens and tees and a 50 foot exclusionary buffer around surface water near fairways are sufficiently protective of aquatic habitat. BOH recommends a 100 foot exclusionary buffer for all other use sites.

Use Pattern Analysis & Risk/Benefit Evaluation:

The Department performed a thorough review of the uses proposed in the subject application in addition to the anticipated proposal for expanded uses in order to determine the anticipated environmental

load of chlorantraniliprole. In addition, the Department weighed the risks associated with the proposed use of chlorantraniliprole versus the benefits expected from such use. This analysis consisted of the following factors:

- All current and future anticipated use patterns;
- The maximum labeled application rates, expected application rates in New York State (if different from the maximum rates), number of applications allowed, timing of applications, and potential acreage for all applications;
- All proposed methods of application;
- Potential for use in efforts to control invasive species;
- Currently registered alternatives;
- Evaluation of the need of the subject products. For this evaluation, we contacted entomologists within Cornell University, including Cornell Cooperative Extension agents;
- Groundwater evaluation and testing protocols in other states;
- The possible benefit to Integrated Pest Management (IPM) from the use of chlorantraniliprole;
- Use of chlorantraniliprole as an alternative to imidacloprid;
- The proposed use on field corn and sweet corn; and
- Classification of chlorantraniliprole as a “reduced risk” pesticide by U.S. EPA when used on apple, lettuce, peach, pear, tomato and turf.

Risks associated with the use of chlorantraniliprole in New York State include impacts to aquatic organisms as a result of runoff events or unintentional spray to aquatic sites from aerial applications. Leaching of chlorantraniliprole to groundwater as a result of labeled use is also a major risk factor.

The review of scientific studies indicates that several benefits may be obtained from the proposed use of chlorantraniliprole in New York State. These include a positive human health profile in comparison to currently registered alternatives, use as a replacement of azinphos-methyl on apples and pears, use as an alternative to imidacloprid for insect control in many agricultural/landscape settings, importance in IPM and resistance management efforts due to its’ novel mode of action, and the potential use of chlorantraniliprole in invasive species management.

With regard to invasive species concerns, the Department envisions chlorantraniliprole as a possible alternative to imidacloprid in efforts to manage Asian Longhorned Beetle. The use of imidacloprid is currently the only pesticidal means in the efforts to control Asian Longhorned Beetle in New York State. In addition, the arrival of the Emerald Ash Borer was confirmed in western New York State earlier this year. Control efforts for this pest are still being developed. The Department believes that chlorantraniliprole could play a role in future control efforts of this destructive insect.

Through communication with various stakeholders, the Department has concluded that a need for chlorantraniliprole does exist in agricultural settings, most notably for control of Lepidoptera. The systemic nature of chlorantraniliprole could prove to be an essential means of protection in brassica, fruiting vegetables, and sweet corn, thereby providing an alternative to the pyrethroid class of chemicals. Concerns for resistance of certain insects to pyrethroids (such as bifenthrin and cypermethrin) are increasing in the agricultural community. Hence, the use of chlorantraniliprole will provide a useful tool in Integrated Pest Management efforts throughout New York State.

Mitigation Evaluation:

Due to the ecological and groundwater impacts expected from the use of chlorantraniliprole as originally proposed, the Department was unwilling to accept registration without sufficient mitigation of the Department's concerns. Several avenues of mitigation were investigated as a means of proactively protecting the ecological and water resources of New York State while providing New York farmers and turfgrass/ornamental managers with a vital tool for insect control. As presented in the ecological effects risk assessment, appropriate mitigation of the risk to aquatic organisms can be accomplished via the addition of the following labeling prohibitions: 1) Prohibition of aerial application in New York State; and 2) Prohibition of application within 100 feet of a water body unless applied on golf course greens and tee boxes (25 feet buffer zone) or fairways (50 feet buffer zone).

Groundwater modeling indicates that chlorantraniliprole may leach to groundwater, especially in sandy soils. Mitigation of this concern will be achieved through the classification of all products containing chlorantraniliprole as restricted use pesticides. As such, only certified applicators may purchase and use the products. This allows for a greater probability that the products will be applied correctly in addition to allowing NYSDEC to track where and how much chlorantraniliprole is applied in New York State. To further protect the groundwater resources in New York State, sale, distribution and use of products containing chlorantraniliprole will be prohibited in Nassau, Suffolk, Kings, and Queens Counties at this time. This will serve to protect the sole-source aquifer that serves as Long Island's only source of drinking water. Limited agricultural use, where a need is demonstrated, may be allowed on Long Island at a future date.

Registration Decision

The Department has registered DuPont Coragen Insect Control (EPA Reg. No. 352-729) and DuPont Altacor Insect Control (EPA Reg. No. 352-730) for use in New York State. The Department continues to have technical concerns regarding the potential of chlorantraniliprole to contaminate groundwater and affect aquatic organisms. Therefore, as part of the negotiated registration decision, DuPont has agreed to the following conditions with regard to registration of products containing chlorantraniliprole in New York State:

1. All products containing chlorantraniliprole will be registered as restricted use pesticides in New York State. The specific regulation supporting this classification falls under New York State Department of Environmental Conservation Regulations 6 NYCRR 326.23(e).
2. All products containing chlorantraniliprole will state: "Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens Counties of New York State" on the front panel of the product labeling. Department staff has indicated that limited use on Long Island could be entertained via a Special Local Needs registration if DuPont can provide sufficient evidence that an essential need exists for a specific crop or crop group. Therefore, alternate language that the Department deems acceptable is: "Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens Counties of New York State unless permitted under FIFRA Section 24(c) Special Local Need Registration." Any future application for use in these counties will require investigation and possible prohibition of certain methods of application, including soil injection, soil drench, hill drench, and in-furrow treatment.

3. With the exception of applications on golf courses, all products containing chlorantraniliprole will state "In New York State, this product may not be applied within 100 feet of a water body." Product labeling with use directions for golf courses may use the modified buffer zones presented earlier in this letter. These buffer zones are as follows:

"Greens and tee boxes: This product may not be applied within 25 feet of a water body."

"Fairways: This product may not be applied within 50 feet of a water body."

4. All products containing chlorantraniliprole that allow application via aerial methods will state "Aerial application of this product is prohibited in New York State" in the Aerial Application section of the final product label.

5. DuPont will provide the Department with copies of any future studies performed to evaluate the environmental fate characteristics of chlorantraniliprole and its degradates.

6. Continued registration of this active ingredient will be dependent upon review of the analytical results from the New York State groundwater monitoring programs. As a reminder, groundwater modeling using a Riverhead soil type predicted that use at the maximum agricultural rate would result in groundwater levels of 4 ppb of chlorantraniliprole after 10 years while use at the higher turf/ornamental use rate would result in groundwater levels of chlorantraniliprole of 11 ppb after 10 years. The Department has determined that inclusion of action thresholds is necessary to clearly communicate the need to be protective of the water resources in New York State.

Detections of chlorantraniliprole, its major metabolite IN-EQW78, or a combination of both compounds in surface water or groundwater at or above 10 ppb will require investigation and possible mitigation of chlorantraniliprole uses in New York State. Mitigation could include suspension of all products containing chlorantraniliprole in the State. Groundwater modeling did not predict significant leaching of the major metabolite IN-EQW78. However, past experience has revealed that modeling, while a valuable resource, does not always accurately predict the breakdown and movement of chemicals in groundwater under real-world conditions. As such, detections of chlorantraniliprole or its metabolites could be higher than the modeling results. Therefore, the Department believes it to be necessary to include the major metabolite IN-EQW78 in addition to chlorantraniliprole as part of our groundwater monitoring programs.

The Department believes that an action level of 10 ppb is an appropriate value based upon the modeling predictions made in the Environmental Fate Risk Assessment presented earlier in this letter. In addition, the Department believes that an action level of 10 ppb provides the proper balance in protecting the resources of New York State while providing New Yorkers with a new class of pesticide for insect management. Finally, the action level of 10 ppb is 100 times greater than the limit of quantitation reported by DuPont in their application materials for both chlorantraniliprole and IN-EQW78. Hence, these compounds will be easily detected at or below 10 ppb if they are present in the environment.

7. DuPont will provide the Department with analytical standards for chlorantraniliprole and its major degradate IN-EQW78 for use in the Department's groundwater monitoring program.

As part of the Department's review process for chlorantraniliprole, we evaluated homeowner

(consumer) use on turf and ornamentals in addition to the uses proposed by your application. The Department is aware that Dupont has not applied for homeowner uses of chlorantraniliprole. However, homeowner use was investigated in order to obtain a true estimate of the potential environmental load of chlorantraniliprole. The Department has determined that homeowner use of chlorantraniliprole will result in an unacceptable environmental load. The Department is sensitive to the need demonstrated for chlorantraniliprole in the agricultural and professional marketplace. However, use of this chemical by homeowners will result in an unacceptable risk to New York State resources. **Therefore, the Department has concluded that products containing chlorantraniliprole intended for homeowner use will not be registered in New York State.**

The registration decision and conditions set forth in this letter are applicable to all current and future applications containing the active ingredient chlorantraniliprole. The Department has evaluated all anticipated use patterns for this active ingredient.

Enclosed for your record are copies of the stamped "Accepted For Registration" labels and the New York State Certificate of Pesticide Registration for DuPont Coragen Insect Control and DuPont Altacor Insect Control. Please be reminded that supplemental labeling for both products was approved and is included with the enclosed materials. This supplemental labeling contains additional language and prohibitions required as a condition of registration for these products. The supplemental label must be in the possession of the applicator at the time of pesticide application. The Department expects that the language present on the supplemental labels will be added to the main product labels as soon as possible.

DuPont Acelepryn Insecticide (EPA Reg. No. 352-731) will be registered upon receipt and approval of product labeling that meets all of the conditions set forth in this letter.

Please note the yes under the "restriction" column on the enclosed Certificate of Pesticide Registration and the "Classified for Restricted Use in New York State" stamp on the enclosed product labels. As such, each product is restricted in its purchase, distribution, sale, use and possession in New York State. Furthermore, each product may only be purchased and used by a certified applicator in New York State.

The New York State Department of Environmental Conservation Regulations 6 NYCRR 326.3(a) state: "It shall be unlawful for any person to distribute, sell, offer for sale, purchase for the purpose of resale, or possess for the purpose of resale, any restricted pesticide unless said person shall have applied for, and been issued a commercial permit."

Should you require information to obtain a commercial permit, please contact the Pesticide Reporting and Certification Section, at (518)-402-8748.

The Pesticide Reporting Law within Environmental Conservation Law Article 33 Title 12 requires all certified commercial pesticide applicators to report information annually to the Department regarding each pesticide application they make. **Commercial pesticide retailers are required to report all sales of restricted pesticide products and sales of general use pesticide products to private applicators for use in agricultural crop production.** If no sales are made within New York State, a report must be filed with the Department indicating this is the case.

If you need information relating to the Pesticide Reporting Law, or annual report forms, please visit the Department's website at <http://www.dec.ny.gov/chemical/27506.html> or call (518)-402-8768.

Please note that a proposal by DuPont Crop Protection or any other registrant to register a product that contains chlorantraniliprole, and whose labeled uses are likely to increase the potential for significant impact on humans, nontarget organisms, or the environment, would constitute a major change in labeling. Such an application must be accompanied by a new application fee and meet the requirements listed in Appendix 1.B. of "New York State Pesticide Product Registration Procedures" (April 2009). Such information, as well as forms, can be accessed at our website as listed in our letterhead. Please be aware that any unregistered product may not be sold, offered for sale, distributed, or used in New York State.

Please contact the Pesticide Product Registration Section, at (518) 402-8768, if you have any questions regarding this letter.

Sincerely,

Maureen P. Serafini

Maureen P. Serafini
Director
Bureau of Pesticides Management

Enclosures

Ecc w/enc: R. Mungari, NYS Dept. of Ag. & Markets
A. Grey/E. Horn, NYSDOH
W. Smith, Cornell University, PSUR