University of Connecticut
College of Agriculture and Natural Resources

Office of Dean and Director

Cooperative Extension System

Agricultural Experiment Station

Ratcliffe Hicks School of Agriculture

HB 5418
AAC Integrated Pest Management Plans for Municipal Facilities

Chairman Meyer, Chairman Roy and members of the Environment Committee, my name is Greg Weidemann and I serve as the Dean of the College of Agriculture and Natural Resources at UConn. I am pleased to have the opportunity to present testimony on House Bill 5418.

As the state's Land Grant institution, we have a three fold mission of teaching, research and service. Our service mission includes providing research-based information to individuals, businesses and state and local government through the Cooperative Extension System including information on Integrated Pest Management or IPM. Much of what is requested in the bill is already provided through a variety of means including one-on-one consultation, training programs, workshops, printed materials and electronic communications. Anyone can contact our Home and Garden Center via a toll free number, email, or fax with questions about pest management. The web site (www.ladybug.uconn.edu) offers a wide variety of fact sheets addressing many common pest problems along with other available resources and scheduled educational programs. We also maintain a separate IPM web site (www.hort.uconn.edu/ipm) which lists educational opportunities, available fact sheets on common pest problems and links to members of our IPM team. The site also includes annual reports of accomplishments that may meet the reporting requirement in the proposed legislation.

Although our staff is limited in comparison to the demand, we make every effort to address any need whether it comes from a farmer, private citizen, business or municipality. We do not have someone specifically charged to assist municipalities in the development of IPM programs or to address structural pest control in public buildings. In recent years we have added a stronger focus on turf IPM and urban landscapes to meet this growing need. We actively partner with the Department of Environmental Protection, Department of Agriculture, the Connecticut Agricultural Experiment Station and a variety of NGO's and other organizations on IPM-related issues.

I have included a brochure that highlights our IPM program. As an update to figures noted in that document, our program has delivered more than 800 training programs and reduced the use of pesticides by more than 90 tons since the mid-80's resulting in nearly $3 million in cost savings to growers and businesses in Connecticut.

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Pesticide & Nutrient Use Reductions

Integrated Pest Management Program
University of Connecticut

The University of Connecticut IPM program works with growers throughout the state. A staff member leads the efforts in each of the following commodities: vegetables, greenhouse crops, nurseries, fruits, wine grapes, turf, and field crops. The program maintains a website (**www.ipm.uconn.edu**) where one can find IPM publications and pest management information. Since 1984, IPM educators have delivered 824 on-site season long IPM training programs. As a result, growers have withheld from application nearly 92 tons of pesticide active ingredient.

Highlights from recent projects funded in part by the CT Department of Environmental Protection through a US EPA Section 319 nonpoint source Clean Water Act grant:

1) Reduced Pesticide/Nutrient Loading Demonstration Project in the Thames River Basin

The primary goal of this project was to reduce the use of pesticides and nutrients within the Thames River Basin that may pose a critical threat to aquifers and surface waters. This was accomplished by in-depth educational training programs for agricultural producers and green industry professionals located in this area. During the 2006 growing season Integrated Pest Management grower-training programs were implemented in the Thames River Basin in the following commodity areas: vegetable crops, fruit crops, nursery crops, greenhouse crops and field corn. Depending on the commodity or clientele group, IPM education consisted of on-site demonstration projects, individual and group training sessions, twilight meetings, season-long consultations and meeting presentations. The programs provided recommendations for best management practices, particularly to reduce high environmental risk pesticides (e.g. those with high leaching potential) and excess nitrogen applications. The Nutrient Management component included the use of the Presidedress Soil Nitrate Test (PSNT) and End-of-Season Cornstalk Test.

A total of 214 in-field IPM training sessions were conducted by UConn IPM Specialists in the Thames River Basin in 2006. As a result of this training, the cooperators reduced pesticide applications by 30% (916.9 pounds of active ingredient (A.I.)). The project succeeded in reducing the use of 26 of the 61 pesticides reported by the cooperators and eliminated the use of three products entirely. The growers in the program reported a net reduction in use of 449.4 pounds A.I (49%) of insecticides; 279.6 pounds A.I. (28%) of herbicides; and 187.9 pounds A.I. (16%) of fungicides.

Another success of the project was to reduce the use of pesticides with moderate to severe leaching potentials by 43% (367 pounds A.I.). The project also produced a 50% reduction

(413.0 pounds A.I.) in use of pesticides previously found in Connecticut ground water. Non-chemical alternatives and pesticides with less detrimental characteristics were substituted wherever possible.

Soil sampling for the Presidedress Soil Nitrate Test (PSNT) was conducted by staff of the Eastern Connecticut Conservation District on 5 farms with a total of 357 acres of field corn and/or sweet corn. As a result of the testing, nitrogen applications were reduced by a total of 4,852 pounds (18.7 pounds per acre; 22%).

From 2002-2006, a total of 866 in-field IPM training sessions were conducted in the Thames River Basin. As a result, there was a net reduction in pesticide use of over 4,000 pounds of pesticide active ingredient, a 26% reduction in use. The nutrient management program reduced nitrogen applications to field corn and sweet corn by a total of 42,440 pounds, a 22% reduction in use.

2) The Quinnipiac River Watershed Integrated Pest/Crop Management Project:

- IPM training programs delivered between 1997-1999 in the Quinnipiac River watershed
- Programs were offered for orchards, vegetables, greenhouses, field corn, turfgrass and nursery/landscaping.
- On site field training included identification and monitoring of insect, disease, and weed pests
- June nitrate testing was implemented as a way to curb excess nitrogen applications in field and sweet corn.
- IPM practices utilized included:
    - identification and use of beneficial insects
    - use of economic thresholds
    - use of pest resistant plants
    - scouting and use of traps for pest monitoring
    - proper selection of pesticides in relations to toxicity, leaching potential and compatibility with beneficial species.

Impacts of IPM training:

- Agricultural and green industry cooperators reduced pesticide applications by 63% (47,612 pounds of pesticide active ingredient) on 785 acres.
- Nitrogen use was reduced by 32% (42,117 pounds) on 376 acres
- Phosphate and potassium use was reduced by 47% (10,270 pounds each) on 79 acres in the watershed.
- In addition to the 615 in-field IPM training sessions, 144 presentations were given by UConn IPM staff in 1997-1999
  with a total attendance of 11,240 people. Forty-one of the presentations were given in the Quinnipiac watershed area and were attended by 2,870 people.

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