

## **Proposal for Development of a Strawberry Crop Profile for New England – 2005**

*Sonia Schloemann*

*UMass Extension Small Fruit Specialist*

*Original plus 14 copies submitted by Jan. 21, 2005; electronic copy of narrative submitted via email to John Ayers ([jea@psu.edu](mailto:jea@psu.edu)) and Elizabeth Thomas ([egt3@cornell.edu](mailto:egt3@cornell.edu)) by same date*

### **Project Summary:**

This proposal seeks funding by the Northeast Integrated Pest Management Center under the IPM Partnership Grant program; section B (Tactics Surveys, Crop Profiles, and Pest Management Strategic Plans), for the development of a strawberry crop profile for New England (6 states inclusive). It is a continuation of a previous proposal submitted by the New England Pest Management Network (NEPMNet) and funded in the last funding cycle, which included the design and implementation of a pest management tactics survey for strawberries in the New England states. Data collected from the survey will be used to form the basis of the crop profile to be formulated under this proposal. No crop profile for strawberries currently exists for any New England state, except for New Hampshire; a profile published in 1999 and which is now largely out-of-date. Additional impetus for development of the crop profile and eventual Pest Management Strategic Plan for New England strawberries comes from the fact that strawberries are among the crops commonly consumed by children. In fact, since a high percentage of the crop is sold on a PYO basis, many children are also exposed to the fields in which the strawberries are grown, increasing the risk of exposure to pesticides. The crop profile proposed here will be developed in close collaboration with state liaisons and growers in each of the 6 New England states. It will be developed using the NEPMNet crop profile template, which insures compliance with USDA Crop Profile requirements. A special effort will be made to include issues related to organic strawberry production. Supplemental funding (e.g., from the New England Vegetable & Berry Growers Association, NOFA or USDA) may be sought to assist in this aspect of the crop profile, if needed.

### **Project Literature Review, Previous Work, and Related Experience:**

The New England Pest Management Network (<http://pronewengland.org/index.html>) submitted a proposal for funding in 2004 which contained several objectives, including conducting a pest management tactics survey for strawberries. This proposal was funded and a comprehensive 20-page survey tool was developed using the statistically validated protocol. This survey was mailed to 494 growers. Once the survey process is completed, the next step will be to develop a regional crop profile of strawberries for New England. The survey data entry and summarization will be completed as part of the funding for the survey project. The summary data may then be applied to develop a crop profile for strawberries in New England. This proposal is for funding to develop such a crop profile.

A Crop Profile is a synopsis of pests and management practices for a specified crop (Burr 2000). Using statistically valid data, such as those gained via a Dillman Survey tool (Dillman, 2000), a crop profile will identify all insect pests, diseases, weed and abiotic factors that may impact crop yield or quality such that management practices are employed to mitigate impacts. It will also identify all the pest management practices employed. The drafting of a crop profile can

also reveal gaps in effective management strategies and provide a structure for formulating an effective response or research needs (e.g., IR-4, etc.).

Rather than develop crop profiles for each individual state in New England separately, it is more useful to pool the states together as a region to assess the pest status of certain crops, which are widely grown in a uniform way across the region. Strawberries are such a crop. They are almost universally grown in what is called a Northern Matted Row System (with a few variations) and face a uniform set of insect, disease and weed pests across the region. The variations that do exist, can easily be accommodated within the context of a regional profile. Further, the usefulness of the regional approach is also mirrored in other efforts such as the production of pest management recommendations, which are published for the whole region (Schloemann, 2003), as well as commodity associations that are organized regionally (e.g., the New England Vegetable & Berry Growers' Association). The only state in New England that has attempted to formulate a crop profile for strawberries is New Hampshire. This profile was done in 1999 and will be improved by updated information derived from the new Strawberry Survey. The development of this updated and more inclusive crop profile will be closely coordinated with representatives from each of the New England States, notably Dave Handley from the Univ. of Maine, Ann Hazelrigg from Univ. of Vermont, Alan Eaton from the Univ. of New Hampshire, Steve Alm from Univ. of Rhode Island, and William Nail from the CT Agricultural Experiment Station.

A crop profile must be thorough, though concise. Done well, crop profiles provide reliable information for state and federal agencies (e.g., State Depts. of Agriculture or USEPA) from which to develop regulatory, policy and other actions. For this reason, the New England Pest Management Network has developed a Procedures and Template for writing pest management crop profiles. Crop profiles developed following this template will meet all USDA requirements (Burr, 2000).

**Objective:**

To compile a comprehensive crop profile on strawberries for New England

**Procedures:**

1. Obtain summarized data from New England Strawberry Pest Management Tactics Survey – Spring 2005
  - a. This information will be provided by Natalia Clifton from UMass who is responsible for data summary under the original proposal.
2. Follow protocol set out in the New England Pest Management Network Crop Profile Procedures and Template – Summer 2005
  - a. Sonia Schloemann will formulate the strawberry survey summary information into a comprehensive strawberry crop profile draft using the NEPMN template and verifying it with the USDA Crop Profile 'Required Minimum Elements' published by W. Burr.
  - b. If the pest management tactics survey does not adequately address issues of organic production, additional information will be sought to fill this gap.
  - c. The draft strawberry crop profile will be reviewed by state liaisons to verify content and accuracy.

3. Publish New England Strawberry Crop Profile in all appropriate venues – Fall 2005
  - a. Final crop profile will be submitted to the National Database.
  - b. Links to the crop profile will be installed in University Extension web pages and other appropriate locations

**Literature Cited:**

Burr, W. 2000. *Instructions for Preparing Crop Profiles*, USDA Office of Pest Management Policy and Pesticide Impact and Assessment Program. <http://pestdata.ncsu.edu/cropprofiles.instructions.html>

Coli, W., M. Christie, D. Cooley, R. Hazzard, D. Ferro, T. Smith, S. Schloemann, R. Szala. 2001. *Assessing Grower Adoption of Integrated Pest Management (IPM) Systems in the Northeastern U.S.A., and Identification of Future Research, Training and Extension Needs*. Am. J. Alt. Agric.

Schloemann, S. G., ed. 2003. *New England Small Fruit Pest Management Guide 2003/2004*. <http://www.umass.edu/fruitadvisor/nesfpmg/index.htm>.

**Probable Duration:**

It is expected, that once the pest management tactics survey results are summarized, that the Strawberry Crop Profile will be finalized within 6 months. The actual time spent working on drafting, reviewing and finalizing the crop profile should require approximately 80 – 160 hours of work by the Project Director, Sonia Schloemann. This proposal is based on funding 80 hours (2 weeks) of salaried time for the Project Director. The additional 80 hrs (2 weeks) is included as matching funds.

**Evaluation Plans:**

The procedures section of this proposal defines a process of evaluation by state liaisons before the New England Strawberry Crop Profile is published and submitted to the National Database. This will take place in the summer of 2005 in order to meet the goal of finalizing the Crop Profile by the Fall.

**Cooperation and Institutional Units Involved:**

The primary work for the New England Strawberry Crop Profile will be done by the project director, Sonia Schloemann. Her affiliation is with the Dept. of Plant and Insect Sciences (PSIS) at the University of Massachusetts and UMass Extension. The New England Strawberry Pest Management Tactics Survey results will be provided to the project director by Natalia Clifton, also of Dept. of Plant and Insect Sciences (PSIS) at the University of Massachusetts and UMass Extension. The development of the crop profile will be closely coordinated with representatives from each of the New England States, notably Dave Handley from the Univ. of Maine, Ann Hazelrigg from Univ. of Vermont, Alan Eaton from the Univ. of New Hampshire, Steve Alm from Univ. of Rhode Island, and William Nail from the CT Agricultural Experiment Station.

**Key Personnel:**

Sonia Schloemann, UMass Extension Small Fruit Specialist: Responsible for receiving Strawberry Crop Tactics Survey summary results from Natalia Clifton (UMass) and compiling data and formulating from it (and other sources as needed) a crop profile of strawberries grown in New England which conforms with all USDA crop profile criteria. See Curriculum Vitae as Attachment A.

**Collaborative Arrangements:**

The project director has been in contact with Dr. Glen Koehler, Univ. of Maine, and project director for the FY04 funded proposal that initiated the strawberry pest management tactics survey. Since these projects are linked, a letter affirming this has been provided to Dr. Koehler.