PROJECT DESCRIPTION

PROJECT CATEGORY: IPM PLANNING AND ASSESSMENT DOCUMENT

PROJECT SUMMARY

This proposed project is to write a Christmas tree crop profile for New England. Data collected from the New England Pest Management Network Christmas Tree Pest Management Tactics Survey conducted in 2008 will be used to form the basis of the crop profile to be formulated under this proposal. There are no comprehensive IPM guidelines for Christmas tree production for New England. Christmas tree production in New England is substantially different from other parts of the country to justify development of a regional crop profile which would inform the development of IPM guidelines. No crop profile for Christmas trees currently exists for any New England states, except for Connecticut; a profile published in 1999 which is now out-of-date and no longer available. Completion of a crop profile follows the sequence of IPM planning and assessment document development outlined in the request for proposals; survey, crop profile, strategic pest management plan.

BACKGROUND and JUSTIFICATION

There are thousands of acres of Christmas trees grown in New England, and they comprise an important economic sector in New England's agriculture. The 1997 USDA Census of Agriculture reports that $1.67M of trees were sold in New England. The total acreages of trees grown are withheld from the statistics report to avoid disclosing data for individual farms in Connecticut, Massachusetts, New Hampshire and Rhode Island. Maine and Vermont are reported to have 2,544 and 2,061 acres respectively.

A survey of pest management tactics on Christmas trees grown in New England was completed in 2008. Developing a crop profile will not only provide important information for developing IPM guidelines for New England, but will also provide a model for other targeted states in developing their projects.

No current comprehensive integrated pest management guide exists for Christmas tree growers or production advisors to turn to (Langone, 2006). Conversations with Extension and Experiment Station personnel in New England, have indicated that there is a need to identify the needs of Christmas tree growers, and begin to develop a plan to provide them with integrated pest management information.

Christmas trees have been identified as an area of emphasis for IPM in the Northeast region by the NEREAP program committee in May of 2006. Christmas trees have also been identified as a priority crop for New York, New Jersey and Pennsylvania in the EPA/BEAD crop profile priority list prepared by Becker.

OBJECTIVES AND ANTICIPATED IMPACTS

Objective: Compile a comprehensive crop profile on Christmas trees grown in New England.

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.).

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). Additionally, crop profiles provide the basis for the development of IPM guidelines.

APPROACH AND PROCEDURES

In 2007 the New England Pest Management Network, (http://pronewengland.org/), was funded to conduct a pest management tactics survey for Christmas trees. A comprehensive 24 page survey tool was developed using the Dillman method (a statistically validated survey protocol) and the survey was mailed to 861 growers. The survey data entry and summarization will be completed by the late winter of 2009. The survey results will be available for use in developing a crop profile. This proposal is for funding to develop such a crop profile.

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. Christmas trees are such a crop. They are grown throughout New England. If regional variations are evident from the survey data they will be treated as northern New England grown trees (Maine, New Hampshire and Vermont) and southern New England grown trees (Massachusetts, Connecticut and Rhode Island). The usefulness of the regional approach is mirrored in other efforts such as the 13 surveys, 11 crop profiles, and 11 pest management strategic plan posted on the PRONewEngland.org website. Grower commodity associations are also organized regionally and by state (e.g., the New England Christmas tree Growers Assn., Ct Christmas tree Growers Assn., etc).

The only state in New England that has attempted to formulate a crop profile for Christmas trees is Connecticut. This profile was done in 1999 and will be improved by updated information derived from the new Christmas tree 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 Charlene Donahue from the Maine Department of Conservation, Kathleen Carroll, University of Massachusetts, Cheryl Smith, University of New Hampshire, Whitney Langone, Univ. of Rhode Island, Jon Turmel Vermont Agricultural Laboratory, and Richard Cowles, Connecticut Agricultural Experiment Station.

Candace Bartholomew will formulate the Christmas tree survey summary information into a comprehensive Christmas tree crop profile draft using the PRONewEngland template, which exceeds the USDA Crop Profile 'Required Minimum Elements' (Burr 2000). If needed, additional information will be sought to address organic production issues not covered by the survey.

The draft Christmas tree crop profile will be reviewed by the above mentioned state representatives and the PRONewEngland State Network Project state liaisons to verify content and accuracy for their state.

Steps:

1) Obtain summarized data from New England Christmas tree Pest Management Tactics Survey in late winter 2009. 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 (Koehler)– Summer 2009

3.) Send draft crop profile to collaborators for review in Fall 2009

4.) Make revisions as necessary during the winter of 2009-2010.

5) Publish New England Christmas tree Crop Profile on the PRONewEngland.org website and submit to the National Crop Profiles Database Spring2010. Links to the crop profile will also be installed in University Extension web pages and other appropriate locations, and hard copy documents will be sent to each of the New England Christmas tree grower organizations.

EVALUATION PLANS

It is expected, that once the pest management tactics survey results are summarized, that the Christmas tree Crop Profile will be finalized within 12 months. The actual time spent working on drafting the crop profile should require approximately 250 hours of work by a hired technical assistant. It is anticipated that a regional difference will be determined and therefore require additional time to thoroughly address. This work will be closely supervised, reviewed and finalized by the project director.

The draft Christmas tree crop profile will be reviewed by the above mentioned state representatives and the PRONewEngland State Network Project liaisons to verify content and accuracy for their state. This will take place in Fall 2009 in order to meet the goal of finalizing the crop profile by the Spring 2010.

LITERATURE CITED

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