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IPM PLANNING and ASSESSMENT DOCUMENTS

Goal 1d. Provide EPA, USDA, private sector stakeholders, University programs and state agencies with statistically valid descriptive data and expert insight into current pest management practices and foreseeable needs.

Activity 1d: New England Christmas Tree Pest Management Tactics Survey

Objective 1d. Conduct a statistically valid survey of Christmas tree pest management tactics in New England.

PROBLEM, 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 2002 Census of Agriculture New England ranks New England 7th nationwide in cut Christmas tree production. The National Agricultural Statistics Service reports that $10,745,000 of trees were sold in New England in 1998. The total acreage is 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.

No current 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.

A survey of Connecticut Christmas tree growers was conducted in 2005 by Richard Cowles of the New Haven Experiment Station. The data collected are useful but limited and are available for comparative use in this survey.

OBJECTIVES AND ANTICIPATED IMPACTS

IPM tactics surveys are the starting point for the development of crop profiles and strategic pest management plans. Until we know how growers are currently managing pests we cannot identify particular areas of concern and direct new research programs as needed. The potential for Integrated Pest Management programs is also based on the current pest management practices.

APPROACH AND PROCEDURES

In 2007 Candace Bartholomew, University of Connecticut, will develop a Christmas tree IPM tactics survey questionnaire and manage the Dillman process mailings. Natalia Clifton, University of Massachusetts, will manage data entry and summary for the Christmas tree survey. The survey will be done in accordance with the New England Pest management Network survey template (Koehler, 2006a).

Other state network project liaisons will assist by providing mailing lists and reviewing the survey questionnaire to see if it is appropriate for use in their state. Liaisons may use the expertise of other persons in their state to aid in that determination, but the state liaison is responsible for final approval of the survey questionnaire as suitable for their state. If changes are needed to make it suitable, it is incumbent on the state liaison to identify those changes and to notify Bartholomew. No surveys will be sent to the mailing list from a state until the state liaison has given approval. State liaisons will share draft survey forms with appropriate university and state government staff in their state to make them aware of the survey activity.

Natalia Clifton at the University of Massachusetts will be conduct data entry. Natalia has complied data for numerous New England Pest Management Network surveys and has established an effective, standardized data management system.

EVALUATION PLANS

The Christmas tree IPM tactics survey will be completed in the spring of 2008. The completed survey will be submitted for review to the New England liaisons and their advisors for review.

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Activity 1e. Pest Management Strategic Plan for Peppers in New England

Objective 1e. Organize a peppers pest management strategic plan workshop and produce a PMSP document.

PROBLEM, BACKGROUND AND JUSTIFICATION

There is a clear need for more information on pests of peppers and tactics used to manage them in New England. Peppers are a high value crop in the 6 states with over 641 farms totaling 1,175 acres growing peppers for fresh market. Candace Bartholomew at the University of Connecticut conducted an IPM tactics survey in 2006 (see http://pronewengland.org/INFO/PROInfoSurvey.htm).

Bartholomew is in the process of creating a New England peppers crop profile that will be finalized in April 2007. We would like to complete the sequence with a peppers pest management strategic plan.

OBJECTIVES AND ANTICIPATED IMPACTS

Pest management strategic plans (PMSP) help agencies and IPM practitioners assess the status of pest management for a given crop or setting. In my past experience in developing PMSPs (apple, blueberry, strawberry), I have also seen an added educational benefit for both the growers involved and university experts during the 2-days of intensive discussion from which we create the draft document. This benefit does not end after the PMSP meeting. The issues raised drive future Extension and research programming for New England growers. The PMSP document supplies valuable information from stakeholders to the EPA, university research and extension programs, and to the industry.

APPROACH AND PROCEDURES

In fall 2007, Ann Hazelrigg, University of Vermont, will organize a peppers pest management strategic plan meeting and create the PMSP document. The procedures and final PMSP document will comply with USDA requirements (Burr, 2000) and the New England Pest Management Network PMSP protocol and template (Koehler, 2004b).

UVM anticipates no problems with the PMSP as we have successfully written 3 others: apple, blueberry and strawberry. The New England Pest Management Network has an established system for completing PMSPs. State liaisons supply contact information and enlist growers, industry representatives, Extension specialists, and

other pertinent stakeholders as participants for the PMSP meeting. As with crop profiles, each state liaison is responsible for determining that the draft PMSP is valid for their state, or for identifying changes needed and notifying Ann Hazelrigg as the PMSP author.

EVALUATION PLANS

The peppers PMSP meeting will be held in early December of 2007 when all field work for the growers is finished. The completed document will be submitted to the Northeast IPM Center in January 2008.

Literature Cited for Sub-project 1

Anonymous, 2005a. *Broadband Penetration Divided into "Red States and Blue States"*, Leichtman Research Group, Inc. Research Notes, 3rd quarter 2005. http://www.leichtmanresearch.com/research/notes09_2005.pdf

Anonymous, 2005b. *Farm Computer Usage And Ownership*, National Agricultural Statistics Service. USDA. July 2005. http://usda.mannlib.cornell.edu/usda/current/FarmComp/FarmComp-08-12-2005.pdf

Burr, W.; 2000. *Organizing A Pest Management Strategic Plan Meeting: A Check List.* USDA Office of Pest Management Policy and Pesticide Impact and Assessment Program. 2000b. http://Pestdata.Ncsu.Edu/Pmsp/Checklst.pdf

Dillman, D.A.; 2000. *Mail and Internet Surveys: The Tailored Design Method. 2nd Edition;* John Wiley Co., New York.

Horrigan, J.B., L. Rainie; 2002. *Counting On The Internet;* Pew Internet and American Life Project. December 2002. http://www.pewinternet.org/pdfs/PIP_Expectations.pdf

Hutchinson, F.; 2004. *eXtension: Tapping the Power of Cooperative Extension;* NASULGC (National Association of State Universities and Land Grant Colleges) News, November 2004. http://intranet.extension.org/index.php?module=articles&func=display&aid=46

Koehler, G.W.; 2006a. *Procedures and Template for IPM Tactics surveys.* New England Pest Management Network. http://pronewengland.org/INFO/PROpubs/Survey/Template-Survey.doc

Koehler, G.W.; 2006b. *Procedures and Template for Pest Management Strategic Plans.* New England Pest Management Network. http://pronewengland.org/INFO/PROpubs/PMSP/Template-PestMgmtStrategicPlan.doc

Langone, W.; 2006. Sustainable Agriculture Specialist, University of Rhode Island, College of the Environment and Life Science. Personal Communication.

Lenhart, A., M. Madden, P. Hitlin; 2005. *Teens and Technology: Youth are Leading the Transition to a Fully Wired and Mobile Nation.* Pew Internet & American Life Project. 2005. http://www.pewinternet.org/PPF/r/166/report_display.asp

Lipsman, A.; 2006. *comScore Releases October U.S. Search Engine Rankings.* comScore Networks. November 2006. http://www.comscore.com/press/release.asp?press=1070

Nielsen, J.; 2000. *Why You Only Need to Test With 5 Users.* Jakob Nielsen's Alertbox, March 19, 2000. http://www.useit.com/alertbox/20000319.html

Nielsen, J.; 2005. *Medical Usability: How to Kill Patients Through Bad Design;* Jakob Nielsen's Alertbox, April 2005. http://www.useit.com/alertbox/20050411.html

Rainford, C.; 2005. *Most farmers still dialing up the Internet*; Agriculture Online, 2005. http://www.agriculture.com/ag/story.jhtml?storyid=/templatedata/ag/story/data/agNews_050815crINTERNETUSE.xml

Schoener, S.; 2002. *U.S. Mass Market Loves Broadband More Than Ever*; Gartner Group. Summary available at http://www.cenic.org/NGI/Gartner/Report/Attachment_C.htm

Stoll, C.; 2002. Quoted in *Imaging the Internet,* Elon University / Pew Internet and American Life Project Predictions Database. http://www.elon.edu/predictions/25briefbitingprediction.aspx