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## STATE NETWORK PROJECT

### 1a. State liaison duties

#### PROBLEM, BACKGROUND AND JUSTIFICATION

##### Pesticide queries

Pesticide regulations made at the federal level affect important industries in New England as well as noncommercial uses by the 14 million people who live in the region. It is important to these industries and to these citizens to have their interests represented in federal regulations. To optimize their decision making, EPA and USDA need an efficient and effective process to acquire New England perspectives on potential pesticide-related risks, use patterns, and proposed regulatory changes.

##### Regional IPM coordination

State liaisons represent the PRONewEngland network in their state, and in the other direction, represent their state's perspectives in PRONewEngland regional pest management surveys, crop profiles, pest management strategic plans (PMSP). These activities are more efficient and economically justifiable at the regional than at the individual state level. However, with limited staff resources, unless it is someone's duty to assist with coordination in each state, a regional approach can be difficult. For example, acquiring mailing lists for surveys, or knowing who to contact for state specific information on pest management practices and needs for a crop profile or PMSP is difficult for staff housed in another state. It can also be difficult for someone managing a regional project to keep interested IPM staff in the other five states "in the loop" about that activity.

##### Contract management

The Northeastern IPM Center (NEIPMC) pays indirect charges to its host institution on each contract it funds. Bundling funds to all of the six New England states into one contract minimizes those indirect charges. Each state subcontract requires someone in that state to provide financial oversight.

#### OBJECTIVES AND ANTICIPATED IMPACTS & APPROACH AND PROCEDURES

##### Pesticide queries

Through their work as IPM and pesticide safety educators, the PRONewEngland Pest Management Network state liaisons have relationships with pest management stakeholders, subject experts, and other key contacts in each New England state. In addition to knowing who to contact, acquiring accurate feedback to federal pesticide

queries also requires a familiarity with pest management practices and pesticide issues. The PRONewEngland state liaisons have that knowledge, and are well suited to acquire stakeholder responses to EPA and USDA pesticide queries.

State liaisons will respond to all Northeastern IPM Center, EPA, and USDA pesticide queries within the allotted time frame. A response will be made even if the response is negative, or "not applicable to my state". Liaisons will send the query to appropriate contacts in their state, and follow-up with phone or email contacts if responses are not received before the query deadline. Federal agencies will have accurate information on New England pest management practices and needs for consideration in regulatory decisions.

### Regional IPM coordination

Using the contacts and relationships with pest management stakeholders, the state IPM Coordinator, and subject experts in various pest management domains developed through their other duties as IPM providers and pesticide safety education trainers, PRONewEngland State Network Project liaisons will publicize the PRONewEngland website; upcoming PRONewEngland survey, crop profile, and PSMP activities; and represent their state's priorities in selecting topics for future PRONewEngland survey-crop profile-PMSP sequences.

State liaisons will provide mailing lists for pest management tactics surveys, and grower and research/Extension expert contacts from their state as candidates to participate in each PMSP meeting. State liaisons will also provide review of draft survey questionnaires, crop profiles, and PMSP documents; and as needed, will solicit comments on drafts from appropriate in-state Extension staff or other knowledgeable stakeholders. Liaisons give state approval for submission of finalized New England crop profiles and PMSP reports to the national database. This provides accountability for authors of those documents to insure that regional reports accurately represent each of the member states.

### Contract management

State liaisons provide financial oversight for all Northeastern IPM Center funded projects in their state. By aggregating all funding to the six New England states through one contract to PRONewEngland, the Northeastern IPM Center will save on indirect charges, leaving more funds available for enhancing and promoting IPM implementation in the Northeast region.

These activities will be carried out by Candace Bartholomew (CT), Pat Vittum and Natalia Clifton (MA), James Dill and Glen Koehler (ME), Bill Lord and Alan Eaton

(NH), Steve Alm and Margaret Siligato (RI) and Ann Hazelrigg (VT). All of these cooperators hold positions in Pesticide Safety Education or IPM program delivery and have the educational background and work experience to be familiar with pest management topics. Through their other duties they regularly interact with pest management stakeholders in their state.

## EVALUATION PLANS

### Pesticide queries and regional coordination

Each state liaison will maintain a record of pesticide queries handled during the year. Query logs from each state will be compiled in the annual progress report to document New England representation in regulatory decisions through the query system.

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### **1b. PRONewEngland.org website**

#### **PROBLEM, BACKGROUND, AND JUSTIFICATION**

Reaching 14.2 million New England citizens as potential IPM stakeholders without a large scale public relations budget is simply not possible. It is even difficult to reach all the potential clientele who have more focused pest management interests because they work in agriculture and other pest-intensive industries. Fortunately, the Internet makes it possible to inexpensively distribute updated information to interested IPM stakeholders that is customized to their needs and delivered when they need it. But the web is an ocean of information. To fulfill the need for regionally targeted, accurate IPM information requires a website that is known, easy to find and navigate, and that provides simple to use but powerful search engine access to Land Grant and state agency IPM resources. The PRONewEngland.org website meets that need.

The Internet continues to grow as a primary information channel in the United States. Over 87% of 12-17 year olds are internet users, and over half use it *daily* (Lenhart, 2005). During 2006, Americans increased their monthly internet searches by 33% (Lipsman, 2006). In 2007, for the first time U.S. consumers will spend more time surfing the Internet than reading newspapers, going to the movies or listening to music. Advertisers are paying close attention to the shift in consumer behavior and are putting more money into digital marketing (Thomasch 2007). New England continues to be at the leading edge of this transition, with the highest proportion of households using the Internet among nine U.S. census regions (Schoener, 2002), and the highest residential broadband penetration in the country, 28% above the national average (Anonymous, 2005a). Internet access by farmers in New England is second highest in the nation, 49% above the national average (Anonymous, 2005b).

A majority of Americans say that the next time they need information from a government agency their first stop will be the Internet (Horrigan and Rainie, 2002). Among users who had ever been to a government web site, 74% said they would go to the Internet first for government information (Ibid). Cooperative Extension has recognized a profound transformation in how it communicates with clients, and has launched a major initiative to enhance its presence online (Hutchinson, 2004). Increasing client access to reliable IPM information through web pages appears at least five times in Northeastern IPM Center priority lists.

The “importance of the Internet” litany of the previous two paragraphs may seem unnecessary as we all know that the Internet is a major new information medium. But while the private sector “gets it”, the Land Grant IPM Extension system has not come anywhere close to full and effective use of the Internet to disseminate IPM information. To ignore the reality of how our clientele access information reduces the efficacy of IPM outreach. A leading web usability analyst has stated “I never cease to be surprised at the miserable usability of university websites” (Nielsen, 2005). The pest management sites of the six New England Land Grant universities vary in coverage, quality, navigation, and style. This gives the public a confusing and difficult interface to find regionally specific IPM information online. It appears that university IPM websites are all too often orphaned projects. Content is posted online... and left there. Broken links accumulate as content moves, dated material remains accessible, updated content is not put to use, navigation and design are never analyzed and so are never corrected or improved. Simple access to accurate, Land Grant IPM information is not achieved.

Of course, even with those deficiencies, there is no shortage of information on the rest of the web. While Google.com and other search engines are useful tools to find pages related to keywords of interest, they do not distinguish the true and tested from the inaccurate or biased. The Internet is awash with questionable information. In this context, the relationship between citizens and their Land Grant universities for the delivery of unbiased, reliable information is increasingly important. As one web analyst stated: “With millions of users posting ...the valuable gets lost in the dross ... It's up to the reader to separate out the dregs. What's missing ... are genuine editors.” (Stoll, 2002).

At the scale of funding available, PRONewEngland.org cannot hope to resolve all of the issues around effective use of the Internet for IPM outreach, and it is not a replacement for individual state IPM websites. What PRONewEngland does do is provide a single coherent access point to the best IPM resources among the six New England states, and also adds original content of its own. It benefits from high search

engine rankings and PRONewEngland pages are often at the top of Google listings for pest related queries.

PRONewEngland.org employs relatively simple but competent and functional application of website design principles. It provides a 'clean' and direct route to help people reach New England IPM information efficiently. It has excellent technical support with barely a single hour of down-time in the past six years. Given more funding it could be even prettier, but that is not the intent of this proposal. With 1,738 pages and 24,476 links, (plus 1,100 linked pages in the searchable factsheet database), PRONewEngland, like any website of comparable scale, requires ongoing maintenance. You can confirm this by asking any website manager if "content management" is important and if it takes time. Content moves or disappears, new content becomes available. A static website becomes incrementally less useful through time. Ongoing maintenance is essential for an effective website.

## **OBJECTIVES AND ANTICIPATED IMPACTS**

The objective of this proposal is to continue maintenance and development of the PRONewEngland.org website. Specific tasks within that are:

- 1) Upgrade the fact sheet database for more complete listings and better search engine performance.
- 2) Maintain and continue development of the PRONewEngland.org information directories.
- 3) Validate the PRONewEngland.org People directories ("Pest Buster" contacts, Interest Group, and University-State agency contact listings for each state).
- 4) Increase public awareness of the site.
- 5) User testing to identify and correct navigational weaknesses.
- 6) Website traffic analysis.

The direct anticipated impact is the continued efficient availability of current IPM information and contacts to stakeholders, and continued documentation of the use of online resources through web traffic analysis. The indirect impact of delivering that information to people is not possible to measure within the scope of this project. We can use web traffic logged over the past year to demonstrate that PRONewEngland is being used. But first a few words about the "black art" of web traffic statistics are required.

A significant portion of web activity is generated by automated computers that search the web to find and confirm links. Web traffic reports that do not filter out that traffic can be highly misleading. Worse still are reports that refer to "hits". A hit is simply a file delivered from a web server. A single web page can account for multiple,

in some cases even hundreds, of hits because each button, link, graphic counts as a unique hit. Uneducated use of web traffic statistics can lead to reporting huge numbers that do not necessarily reflect use by human beings. The numbers reported here are filtered to remove all non-human access, and refer to the number of views of whole web pages by people visiting the site. It is also worth noting that a single web page can include the equivalent of many print pages. Finally, PRONewEngland serves primarily as a clearinghouse to direct users to pages actually hosted on other servers. When a person uses a link on a PRONewEngland page to reach a page hosted elsewhere, no web traffic on the PRONewEngland server is recorded. Thus the traffic report below is an underestimate of the number of pest related pages reached by PRONewEngland users. We have recently added technology to track such traffic.

With those restrictions in mind, here is a summary of the number of people who used PRONewEngland.org in the past 12 months:

- 13,342 visits by 8,281 different visitors.
- At least 7,877 of those visits originated within New England.
- 21% of visits were direct, meaning that someone used a bookmark to come directly to PRONewEngland as an information source. (As opposed to arriving at PRONewEngland via a search engine link or a from a fixed link on another website).
- 40,789 pageviews.

## **APPROACH AND PROCEDURES**

To upgrade the PRONewEngland fact sheet database for more complete listings, to maintain and develop the information directory pages, and to validate contact person links for each state, we will conduct 'manual' searches through New England university, state agency, and stakeholder group websites. These searches will confirm continued availability of existing linked resources and identify high value, regionally appropriate pages and contact persons and organizations not previously included.

We will send an email to each listed contact person to see if their information is current and to ask if they continue to be the appropriate contact. These messages will also serve to remind people that they and their organizations or programs are represented on the PRONewEngland site. For better search engine performance, we will replace the existing Microsoft Excel database engine with a new system that applies a version of the Google search engine that is restricted to our collection of selected IPM resources. This requires creating over 1,100 new web pages. These pages will link to the cataloged item, there will be no reduction in traffic to the host sites. The existing search engine uses a simple yes/no algorithm to associate pages in the database with search keywords entered by users. The new system will provide results ranked by relevance of page content to search keywords.

We are not seeking funds for a major effort to increase public awareness of the site. We previously printed 240,000 full color glossy Pest ID cards with information about the site on the back side. The cards have been very popular and only a small portion remains. The public awareness effort will consist of email from state liaisons to Extension and state agency staff in their state to publicize the site and encourage referrals to it in newsletters, talks, and other communications to the stakeholder community and general public.

Simple observation of even a small number of users attempting to complete prescribed searches for information on a website can identify over 80% of navigational design weaknesses (Nielsen, 2000). We will conduct user tests and adjust the site to incorporate insight gained. We will continue to use the new website traffic analysis system implemented in 2007 which has made this task much faster, easier and more informative (such as allowing us to filter out computer generated traffic to focus on human users).

These activities will be conducted by Glen Koehler, who has experience gained in developing and operating PRONewEngland since its inception, and 20+ years experience with IPM in New England. A supervised undergraduate worker will assist with site crawling and revising entries in the New England pest management factsheet database to work with the new search engine.

## **EVALUATION PLANS**

The year end progress report will report on steps taken and results achieved for objectives 1-6, and will include a traffic analysis of the relative popularity of each section of the site and highlighted pages. The report will also compare traffic patterns and volume for 2007 and 2008.

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### **1c. Project Administration**

#### **PROBLEM, BACKGROUND, AND JUSTIFICATION**

Monitoring and assisting subcontractor compliance, managing procedural standards and document templates, reviewing documents, filing progress reports, and other activities to manage the six-state PRONewEngland Pest Management Network require staff time and office resources. Additional time is required to draft the final contract package and provide budgetary oversight when other funded projects in the six New England states are attached to the PRONewEngland project contract. The degree of management oversight is significant. The six states involved account for half

of the states in the Northeastern IPM Center network. With reduction in other funding sources, it is not feasible to handle such duties as unfunded activity. The time spent on these activities has to be accounted for in project funding.

## **OBJECTIVES AND ANTICIPATED IMPACTS**

A well-managed project provides accountability to insure that subcontractors meet quality standards and deliver products as promised. Financial management for other funded projects in the region insures that grants funds are properly disbursed, and provides competent recordkeeping so that expenditures can be traced.

## **APPROACH AND PROCEDURES**

The budget for project administration reflects the following estimates for number of person-days the PIs anticipate spending on these duties in 2008 based on experience in 2002-2007:

9 days – Proposal and budget development and approvals.

7 days – Contract finalization, including appended funds for other Northeastern IPM Center projects in New England.

19 days – Email and telephone communication to monitor project progress, send updates, oversee financial disbursements, file progress reports.

4 days – Document reviews, template updates.

1 day – PRONewEngland coordination meeting (this is in addition to state liaison participation)

7 days – Participation and travel to and from Northeastern IPM Center Advisory Committee meetings.

In total, the project Co-PIs expect to spend 47 days on project administration duties in 2008. The Co-PIs successfully managed and finalized the 2001-2003 New England Pest Management Network contract. Since 2004 they have managed the PRONewEngland Pest Management Network contract. Co-PI James Dill has managed over \$7 million in grant contracts in the past 15 years.

## **EVALUATION PLANS**

The end of year progress report will cover status of all administered funds.