

**Massachusetts Agricultural Experiment Station:
The Hatch Act**

2009



**Massachusetts Agricultural Experiment Station
University of Massachusetts - Amherst**

A brief history of the Experiment Station and an explanation of:
"The Life Cycle of a Hatch Project"

**112 Stockbridge Hall
Voice: 413-545-5913
Fax: 413-545-1977**

**Document created by:
Patricia Devine Cromack
Assistant Director, MAES**

It all started with the Land Grant...

Most of us know that we work for a Land Grant, but we don't necessarily know what that means or how it came about. During the height of the Civil War in 1862, Justin Morrill crafted a piece of legislation called the Morrill Act that was for the donation of public lands equal to thirty thousand acres for each senator and representative in Congress which would provide Colleges for the Benefit of Agriculture and Mechanic Arts.

Fast forward 25 years...

to 1887. The Hatch Act was written by William Hatch, a representative from Missouri, who created this legislation as an opportunity to make U.S. agriculture more competitive in world markets. This act authorized the use of federal funds for creation of an [Agricultural Experiment Station](#) within each land-grant university and annual allocations to each state for agricultural research. The Hatch Act was written during the presidency of Grover Cleveland. At this particular time in history the economy was depressed and President Cleveland threw his support behind this act in an effort to assist the farmers and their families who at the time were very much in debt.

The Act states that, “ it shall be the object and duty of the State Agricultural Experiment Stations through the expenditure of the appropriations to conduct original and other researches, investigations, and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry of the United States...”.

**The West Experiment Station on our campus is the first experiment station in the United States that was directly connected to a state college.*

The Formula...

Each year approximately \$177 million dollars is appropriated toward support of the Hatch Act. Massachusetts gets approximately \$2 million each year. The State Appropriation is based on a formula. That formula consists of many components, some of which are the population of the state, the number of farms, and the amount of farm acreage in the state. The last time that the formula changed was in 2002 due to the 2000 census. Each dollar received from the USDA requires a state match, which in the case of the MAES usually consists of faculty salaries which are paid by the state. This is why we constantly pester faculty about how much of their time is spent on each hatch projects, teaching or grants.

Of the dollars received by each Experiment Station 25% must be expended on Multi-state Research, if you are interested in collaborating with other universities on a project please see me and we can go over what might be available for projects you can join. This is probably the easiest way to get on a hatch project.

CSREES...

The monies that the Experiment Stations receive are Federal Assistance Dollars that are downloaded from the treasury through the Department of Health and Human Services, They are not considered grants. These dollars are supervised for Congress by the Cooperative State Research Education and Extension Service which is a branch of USDA. It should be noted that the act states in Sec.9.(16) that Congress may at any time, amend, suspend, or repeal any or all of the provisions of this Act.

How does a Principle Investigator receive funds...

The Director of the Experiment Station has authority over all dollars that pass through the Experiment Station. Funds can only be expended on projects if the proposal has been approved by the director or his designee. The Massachusetts Agricultural Experiment Station makes allocations to departments. It is currently the responsibility of the departments/department head to decide how much of their allocation goes to each project.

What is necessary for submission of a proposal...

Proposals should be submitted to the Experiment Station prior to May 1 of the year the research is expected to start. Submission consists of a 7-10 page proposal written according to instructions which can be viewed at:

<http://www.umass.edu/nre/experimentstation/expst-hatchinstrcs.html>

and are also an addendum to this document. At the time of submission we also ask that you submit the names, addresses, phone numbers and email addresses of three (3) reviewers. These reviewers must be from outside of the University of Massachusetts community but still from academe. It is also helpful if we receive a 4th reviewer who would benefit from your research, we call them stakeholders.

What can I use my money for...

Money from the U.S. Department of Agriculture (as Hatch funds), combined with required state matching dollars can be used for incidentals, publishing of papers, equipment necessary for your research, support students and or leveraging for grants.
**Note: If during the course of this Hatch grant, you will be or suspect that you will be*

*purchasing equipment that carries a cost in excess of \$5000, it **MUST** be listed in the project.*

Life Cycle of a Hatch Project...

A project runs either three or five years. The MAES has the authority to grant a one year extension. Projects follow the federal fiscal year beginning on October 1 and ending on September 30. (Remember, for every rule there is an exception so you can start the project later, but the termination date will always be September 30.)

1. The proposal and suggested reviewers are submitted to the Experiment Station.
2. Assistant Director and Director or his designee reviews the proposal to confirm that it meets the requirements of the State Plan of Work.
3. Assistant Director sends the project to review.
4. Reviews are returned via fax
5. Reviews are forwarded anonymously to the PI with a copy to Department head
6. PIs are asked to review the comments and incorporate them as they deem necessary.*

**Please note that as long as the project comes back from all reviewers rated as above average and there are no blatant errors the Massachusetts Agricultural Experiment Station leaves the editing of proposals to the discretion of the PI.*

7. The final proposal is returned electronically to the Assistant Director. A hard copy of the signatory page must also be returned for the file. CRISforms are completed according to instructions. *The AD2008 is the assurance statement. This is where we document whether or not we are using human subjects, Rdna, and/or animals. We will not send the project to Washington if the proper protocols are not already approved because the project will automatically be deferred. (See attached instructions for AD416, AD417 & AD2008.)*
 8. CRISforms are approved at MAES and along with a pdf copy of the proposal are sent via CRIS (Current Research Information System) to the National Program Leader affiliated with that particular piece of research.
 9. Approval comes back to the MAES and you are now eligible to expend whatever your department allocates to that project.
 10. Each November a progress report is written using the CRISforms system that gives updates. Impact statements are a very important part of these reports. State the impact that this project will have on the constituency, how many people it will affect and how it will make things better for them. **Your biggest impact should be written during your termination when the project has completed.*
-

McIntire-Stennis

The **McIntire-Stennis** Cooperative Forestry Program provides federal funds for forestry research at various universities throughout the country.

The scope of forestry research which may be conducted under the McIntire-Stennis (M-S) Act includes investigations relating to:

- reforestation and management of land for the production of timber and other related products of the forest
- management of forest and related watershed lands to improve conditions of water flow and to protect resources against floods and erosion
- management of forest and related rangeland for production of forage for domestic livestock and game and improvement of food and habitat for wildlife
- management of forest lands for outdoor recreation protection of forest and resources against fire, insects, diseases, or other destructive agents;
- utilization of wood and other forest products development of sound policies for the management of forest lands and the harvesting and marketing of forest products
- such other studies as may be necessary to obtain the fullest and most effective use of forest resources

McIntire-Stennis proposals are written in the same format as hatch and they have the same life cycle.

The only difference in any of the required forms is when you are completing the progress report in November, you are asked to list the number of Graduate Students are affiliated with the project.

Index of Addenda

1.	Hatch Proposal Instructions
3.	AD416 Blank Form
4.	AD416 Instructions
7.	AD417 Blank Form
8.	AD417 Instructions
10.	AD2008 Form
11.	Progress Report Form
12.	Progress Report Instructions



Hatch Instructions

for the MA Agricultural Experiment Station



MASSACHUSETTS AGRICULTURAL EXPERIMENT STATION

Due Date. New projects are due in the Associate Director's office on May 1 of each year.

NUMBER.	(To be assigned in the Associate Director's Office.)
TITLE.	Give a brief, clear, specific designation of the subject of the research. The title is not to exceed 132 characters and spaces.
JUSTIFICATION.	Should indicate (1) the importance of the problem to agriculture, rural life, and general public of Massachusetts, (2) a statement of the needs the project is expected to satisfy, the national goal it relates to, how it addresses that particular goal and the importance of doing the work here and now; and (3) ways in which public welfare or scientific knowledge will be advanced. An estimate of the monetary value of the crop or industry and the possible returns upon successful accomplishment of the objectives may be included. One or two references may be used to document statements, but the review of literature belongs in the next section.
PREVIOUS WORK AND PRESENT OUTLOOK.	A brief summary covering pertinent previous research on the problem (citing the more important and recent publications from other stations, as well as your own station); the status of current research; and additional information needed, to which the project is expected to contribute. (Literature citations may be listed at the end of the project outline.)
GOALS/ OBJECTIVES/ OUTPUTS.	A clear, complete, logical statement of the specific objectives of the project listed in numerical order.
METHODS.	There should be a numbered approach statement to correspond with each numbered objective. A statement of the essential working plans and methods to be used in attaining each objective. Approach should correspond to the objectives and follow the same order. Wherever appropriate, the approach should provide data suitable for statistical analysis. This statement should indicate that the research has been carefully planned. This section should indicate (1) questions that have not been answered by research (2) how the proposed research will fill the gaps.
PROBABLE DURATION.	An estimate of the maximum time likely to be required to complete the research originally planned and publish the results. Whenever there is a material change in the objectives, a new or revised project outline must be prepared.
RELEVANCE, EXPECTED OUTCOMES OR IMPACTS:	Describe ways in which scientific knowledge and the public welfare will be advanced. Describe expected quantifiable outcomes and ways in which individuals, families, businesses and/or communities are expected to improve or change as a result of this project. Address how the proposed project might result in sustainable extension efforts beyond the funding period, and how it would promote development of leadership among its faculty collaborators, among users of the project's research results, and among extension educators/audience. Describe how the project would generate external dollars to continue the line of inquiry.
STAKEHOLDER ENGAGEMENT:	Describe how stakeholders will be involved in the design, implementation and/or evaluation of the research and/or extension components of the project or program.

EVALUATION MILESTONES:	Describe significant anticipated accomplishments during the life of the project (year-to-year) that would demonstrate reportable progress. Address how the project might be evaluated during, at or after completion to assess its value or effectiveness. Provision of a timeline would be helpful, as would a description of any evaluation processes to be undertaken.
STAFF SUPPORT.	Estimated annual staff support working on the project. Enter figures in each applicable field to the nearest 0.1 staff year (academic or calendar as appropriate.)

(Insert this table in outline under Staff Support)

Staff Support	1st year	2nd year	3rd year	4th year	5th year
*SY Scientists (Asst. Prof & Above)	(*See Below)				
*TY Technical Support					
*PY Grad. Assistants					
Clerical, Labor and Other					

***SY - Scientific Year** - This is the portion of time for scientists (Assistant Professor and above) who are responsible for creative scientific study, thought, originality, judgments, and accomplishments directly assignable to the activity report.

***PY - Professional Year** - This is the portion of time for persons who hold positions in professional categories and who are assigned to research activities of the project. Such professionals usually hold a bachelors and/or masters degree(s). Graduate students, by virtue of their degree and acceptance into graduate school may be categorized as professionals.

***TY - Technical Year** - This is the portion of time for technicians, aids, and laboratory assistants assigned in support of a project or an activity.

PERSONNEL.	The leader or leaders and other technical workers assigned.
INSTITUTIONAL UNITS INVOLVED.	Each subject matter unit in the Agricultural Experiment Station and any other units of the institution contributing essential services or facilities. The responsibilities of each should be indicated.
COOPERATION.	A statement as to cooperation with the USDA or any other stations, institutions, or other agencies cooperating formally or informally on the project.
APPROVALS.	Scientists and appropriate department heads.

Project Leader _____
 Department Head _____

Just for you...

[Current Students](#)

[Prospective Students](#)

[Faculty & Staff](#)

[Alumni](#)

[Looking for expertise?](#)

[Departments](#)

[About the College](#)

[Experiment Station](#)

[Center for Agriculture](#)

[Stockbridge School](#)

Questions? Comments? Email us at info@nre.umass.edu Copyright © 2004 University of Massachusetts Amherst.

This is an **official** page of the **University of Massachusetts Amherst Campus**.



Agr Exp Station, Univ of Massachusetts
Work Unit Description AD-416

For assistance, please contact Patti Cromack
pcromack@nre.umass.edu

Start at the CRIS Forms Assistance homepage located at <http://cwf.uvm.edu/cris/>

*You can bookmark this page if you wish, but **no subsequent pages** should be bookmarked.*

Select **Work Unit Description AD-416/417/2008**

Click on your state or region

Select: **Agr Exp Station, Univ of Massachusetts**

Enter " stockbridge " as the password and then click the **[Proceed]** button.

Enter your last name and **[Proceed]** to the work list of projects for you as the principal investigator. If you have AD-416 forms in progress, you can select a project from the work list, choose "**AD-416 Research Resume**" and **[Proceed]**

-- **OR** -- If you are initiating a new AD-416 form, select the funding type and then click the **[New]** button at the bottom.

If you are revising an existing project, click the **[Revision]** button, select the project to be revised, then **[Proceed]**. Contact Patti Cromack if you are not sure whether this project should be revised or new.

Enter the following information:

Project Number: If you are **not** normally the one to assign this number, enter your last name. If you are to assign this number, enter the Work Unit/Project No., up to 20 characters without punctuation, always beginning with your institution code (e.g. LAB, WNP, etc.), and, depending on your institution's convention, may include a "-" or a "0" (e.g. VT- or IOW0).

Title: Enter the title for this project. Titles are limited to 140 characters, including spaces.

Integrated Activity: Check this box only if this project fits the definition displayed for the funding type selected.

Performing / Cooperating Departments: Select the home department of the Principal Investigator for the Performing Department, and select up to 2 departments participating significantly in the project.

Multistate Project Number: The Multistate Project number identifies Hatch projects that are supported by Multistate Research funds, or those formally on record as contributing to a Multistate Research project. This number combines the region (NE, NC, S, W, or NRSP) and the project number in the format: **region####** (for example, NE999).

Cooperating States:

Indicate any other states participating in the project **if this is NOT a Multistate Project**.

Investigator Names: A total of twelve can be listed. List the Principal Investigator on Line 1. Lines 2 through 12 are used for co-investigators.

Project Contact:

A project contact name (or office), phone #, and email address are required.

Project Type: Select the CSREES funding program if not already correctly selected.

This section is for Grants and Cooperative Agreements only:

Proposal Number: A proposal number is assigned by the granting agency. Enter the assigned proposal number found on the proposal acknowledgement letter, award letter, or Agreement Face Sheet if one is available.

for SERD grants, refer to instructions provided by the SERD office

Start Date: Enter date work will begin as Month, Day, Year in the format 10/01/2007.

Termination Date: Enter the estimated termination date for the project as Month, Day, Year in the format 09/30/2010.

CHECK and SAVE Screen 1

View the displayed information carefully. Corrections or additional edits can be made by using the **BACK** button on your browser toolbar. After each edit, **CHECK and SAVE** again.

Go to Screen 2

Goals/Objectives/Outputs: Provide a clear, concise statement of the goals and objectives of the project as stated in the approved application or as approved by CSREES. The goals and objectives should be specific and attainable within the duration of the project and with the available resources. If the application lists milestones/target dates for important activities or phases of the project, include this information. Include a description of the expected outputs (or deliverables) from the project. For multistate projects, enter the objective(s) exactly as defined in the multistate project outline

Methods: Describe the ways in which the project will be conducted with emphasis on the general scientific methods and any unique aspects or significant departures from usual methods. Include a description of how the results will be analyzed, evaluated, or interpreted. If applicable, describe the intervention strategy and the intended audience(s). Include a description of how the output(s) will be evaluated and/or quantified for its impact on the intended audience(s).

Do Not exceed 3200 characters (counting spaces). **

** We recommend that you paste in the text from your wordprocessor (spell-check there), but **do not** include formatting such as tab, indent, bold, underline, super/subscript, nor any graphic symbols.

Non-technical Summary:

Describe the situation that creates a need for this project as well as the purpose or rationale for the project. Also include general statements describing the methods to be used, the expected outcomes/impacts, and the anticipated benefits. Provide information at a level that most citizens can understand. This nontechnical summary is designed to enhance the usefulness of the information in the database, especially to legislative and other public audiences.

Limit to 3200 characters (counting spaces).

Keywords: Enter **one per line** in the entry field. Not to exceed 29 characters per line and 345 characters total. It is important to assign appropriate keywords for automated information retrieval of project information. Generally, keywords should be limited to one- or two-word terms.

CHECK and SAVE Screen 2

View the displayed information carefully. Corrections or additional edits can be made by using the **BACK** button on your browser toolbar. After each edit, **CHECK and SAVE** again.

When the information is correct and complete, **Confirm information**. You should see a *Confirmation Screen* displaying all your entered text.

You may want to print a copy from this page to keep for your records.

Use the [Return] button provided (and NOT your browser's Back button) to return to an updated project selection list.

United States Department of Agriculture Research Work Unit/project Description - Classification of Research U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions	Date (mm/dd/yyyy)
---	-------------------

1. Accession No.	Agency Identifiers 2. 3.	5. Work Unit/Project No.		
25. Basic Research %	26. Applied Research %	27. Development Effort %	28. Forestry %	29. Animal Health %

Classification by Research Problem Area, Subject of Investigation, and Field of Science

	Research Problem Area	Subject of Investigation	Field of Science	Percent Effort
	Code (1)	Code (2)	Code (3)	% (4)
30.				
31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.				
39.				

The SUM of the percentages in column (4) must equal 100%

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0042. The time required to complete this information collection is estimated to average 42 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Entering AD-417 Classifications on the CRIS Web Forms

The most important thing to remember about the AD-417 Classification process is the purpose of assigning these codes to your project: funding reports to Congress are based on this classification. In order to summarize funding in your area of research correctly, projects must be classified appropriately. Projects must be classified according to the

[Manual of Classification](#)

[of Forestry and](#)

[Agricultural Research](#).

Suggestions for completing the AD-417 web forms:

- Select a project and form "AD-417 Classification"
- Enter the **Classification by Knowledge Area (KA) (formerly RPA), Subject of Investigation, and Field of Science.**
 - You can complete the Classification table one of several different ways:
 1. Using the manual, determine which options apply to this project and enter the numeric codes and percentages in the table
 2. Use the column heading links to view the list of options and enter the appropriate numeric codes and percentages in the table. You may find it helpful to print a [blank form](#) to jot down your choices.

The column heading links will display the code lists in a new browser window, allowing you to view the code lists while you enter codes in the form. You can even copy and paste codes from the lists into the form.

3. **Use the "Classification Assistance" button to select codes from a list of check boxes. This process will generate all possible combinations from your selections and prompt you to enter appropriate percentages. It will then automatically enter the codes with percentages into the table. You must use the "Return" button provided to return to this form with the codes filled in.**

NOTE: If you use **Classification Assistance** do not complete the Research

Effort categories until you have finished with the (blue) Classification table.

- Enter the percentages for the **Research Effort Category and Forestry/Animal Health Component**.
 - Identify the research category as basic, applied, or developmental and assign percentages which add to 100%.
 - If the project is funded by McIntire-Stennis or Animal Health programs, the Forestry or Animal Health component will automatically be assigned 100%. You can optionally assign percentages to these categories up to 100% each for projects funded by other sources.
- When complete, click the check data button.
- Review and use the BACK button to make changes and corrections on the table.
- When you have completed the classification and the data checking process, be sure to "save" your work with the "Save information" button.

ASSURANCE STATEMENT(S)

STATEMENT OF POLICY - Institutions receiving CSREES funding for research are responsible for protecting human subjects, providing humane treatment of animals, and monitoring use of recombinant DNA. To provide for the adequate discharge of this responsibility, CSREES policy requires an assurance by the Institution's Authorized Organizational

Representative (AOR) that appropriate committees in each institution have carried out the initial reviews of protocol and will conduct continuing reviews of supported projects. CSREES also requires AOR certification by citing a timely date that an appropriate committee issued an approval or exemption.

NOTE: Check appropriate statements, supplying additional information when necessary.

1. INSTITUTION	2. CSREES PROJECT NUMBER OR AWARD NUMBER (if known)
	3. PROJECT DIRECTOR(S)

4. TITLE OF PROJECT:

A. BIOSAFETY OF RECOMBINANT DNA

- Project does not involve recombinant DNA.
- Project involves recombinant DNA and was either approved () or determined to be exempt () from the NIH Guidelines by an Institutional Biosafety Committee (IBC) on _____ (Date).

This performing organization agrees to assume primary responsibility for complying with both the intent and procedures of the National Institutes of Health (NIH), DHHS Guidelines for Research Involving Recombinant DNA Molecules, as revised.

B. CARE AND USE OF ANIMALS

- Project does not involve vertebrate animals.
- Project involves vertebrate animals and was approved by the Institutional Animal Care and Use Committee (IACUC) on _____ (Date).

This performing organization agrees to assume primary responsibility for complying with the Animal Welfare Act (7 USC, 2131-2156), Public Law 89-544, 1996, as amended, and the regulations promulgated thereunder by the Secretary of Agriculture in 9 CFR Parts, 1, 2, 3, and 4. In the case of domesticated farm animals housed under farm conditions, the institution shall adhere to the principles stated in the Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching, Federation of Animal Science Societies, 1999.

C. PROTECTION OF HUMAN SUBJECTS

- Project does not involve human subjects.
- Project involves human subjects and
 - Was approved by the Institutional Review Board (IRB) on _____ (Date). Performing Institution holds a Federalwide assurance number _____.
 - Is exempt based on exemption number _____.
 - Specific plans involving human subjects depend upon completion of survey instruments, prior animal studies, or development of material or procedures. No human subjects will be involved in research until approved by the IRB and a revised Form CSREES-2008 is submitted.

This performing organization agrees to assume primary responsibility for complying with the Federal Policy for Protection of Human Subjects as set forth in 45 CFR Part 46, 1991, as amended, and USDA regulations set forth in 7 CFR 1c, 1992. All nonexempt research involving human subjects must be approved and under continuing review by an IRB.

SIGNATURE OF AUTHORIZED ORGANIZATIONAL REPRESENTATIVE	Title:	Date:
---	--------	-------

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039. The time required to complete this information collection is estimated to average .50 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

United States Department of Agriculture

AD-421 Progress Report

U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions

Date (mm/dd/yyyy)

1. Accession No.	Agency Identifiers 2. 3.	5. Work Unit/Project No.	6. Status
-------------------------	---	---------------------------------	------------------

7. Title

12. Investigator Name(s) (Last name and initials)

1.	3.	5.
2.	4.	6.

20. Termination Date (mm/dd/yyyy)	40. Period Covered (mm/dd/yyyy)
--	--

41. Progress Report

42. Impact

43. Publications

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0042. The time required to complete this information collection is estimated to average 162 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Agr Exp Station, Univ of Massachusetts

PROGRESS REPORT AD-421

**For assistance, please contact Patti Cromack
pcromack@nre.umass.edu**

Your research report is entered into the CRIS (Current Research Information System) database where it is available to fellow research scientists and administrators on a nationwide basis, and to the public worldwide in the CRIS searchable database (<http://cris.csrees.usda.gov/menu.html>).

Display the CRIS Forms Assistance homepage located at: <http://cwf.uvm.edu/cris/>


*You can bookmark this page if you wish, but **no subsequent pages** should be bookmarked.*

Select Accomplishments Report AD-421

Click on your state, and then select: **Agr Exp Station, Univ of Massachusetts**
Enter " stockbridge " as the password and then **Proceed**.

Enter your name to display the list of projects that require reports from you as the principal investigator.

NOTE: grants that started on or after 10/01/2005 are displayed in a separate list shaded in purple -- these require a report based on the anniversary of the project start date -- the due date for each is shown separately.

Select a project by clicking on the  icon. The reporting form will be displayed with blue underlined links to additional information about each field to be entered.

Enter the following information:

Choose the appropriate report, either:

- **Annual Report:** If the termination date has not passed and the project was active during the current reporting year
- **Final Report:** Only if the termination date has passed and the project will **not** be extended beyond the date shown

Outputs:

Report outputs completed during the reporting period that contribute to the goals and objectives of the project (*do not include publications here, they are to be reported separately in the block below*). Do not include findings or conclusions that have been reached; these are to be reported separately as changes in knowledge in the outcomes section. Include a description of how the results have been disseminated to communities of interest or how the product is being shared. If this is a final report, give a brief summary of the most significant outputs and dissemination activities for the entire life of the project.

Outcomes / Impacts:

Describe how findings, results, techniques, or other products that were developed or extended from the project generated or contributed to an outcome/impact. Describe the results of the project evaluation. Indicate how resources and activities helped to produce project outputs and achieve project outcomes and impacts.

The *Outputs* and *Outcomes/Impacts* narratives are required and each limited to 3200 characters (spaces are counted too), Only keyboard characters are allowed. Do not use degree symbols, math symbols, Greek letters, italics, boldface, super- or sub-scripts, or underlines. Please substitute suitable words and alternate characters. Consider entering and spell-checking the text in your favorite wordprocessor (then paste it into the Web form), but **do NOT** include tabs or indents nor any other text formatting or graphic characters.

Publications:

Publications that relate to your CRIS projects should be included. List significant publications issued during the reporting period. On a final report, only include publications not previously submitted on an annual report. There is no limit to the number of publications.

Example:

Wu, J., Ullrich, R.C. and Novotny, C.P. 2006. Regions in the Z5 mating gene of *Schizophyllum commune* involved in Y-Z binding and recognition. *Mol. Gen. Genet.* 252:739-745.

CHECK and SAVE Screen 1

View the displayed information carefully. Corrections or additional edits can be made by using the **BACK** button on your browser toolbar. After each edit, **CHECK and SAVE** again.

Go to Screen 2

Participants

Provide information about individuals who worked on the project. If applicable, provide information about partner organizations, collaborators, and contacts. Also describe opportunities for training or professional development that were provided by the project.

Target Audiences

Provide information on target audiences for efforts designed to cause a change in knowledge, actions, or conditions.

Project Modifications

Describe major changes in approach and reason(s) for these major changes. If applicable, provide special and/or additional reporting requirements specified in the award Terms and Conditions.

CHECK and SAVE Screen 2

View the displayed information carefully. Corrections or additional edits can be made by using the **BACK** button on your browser toolbar. After each edit, **CHECK and SAVE** again.

When the information is correct and complete, **Confirm Report**. You should see a *Confirmation Screen* displaying all your entered text.

When you are completely finished with the report and do not need to edit it further, select the **Report Complete** button. Once you select this button, you will not be able to edit the report again, and it will then be submitted to CRIS for you. You **MUST** "press" this button to indicate when the report is complete. **Your report cannot be submitted to CRIS until you mark it complete.**

You may want to print a final copy to keep for your records and / or submit for review using the button provided.

If you have more than one project, use the **Return to Select Project** button in order to select another project and follow the same steps as outlined previously.

ALL INFORMATION SHOULD BE ENTERED BY

NOVEMBER 24, 2007