

## 2017 Progress or Final Report

### Preparation Instructions

The USDA National Institute of Food and Agriculture (NIFA) requires Progress or Final Reports be submitted on-line using the REEport portal <http://portal.nifa.usda.gov/portal/>

Log in at the top of the screen. Under the Active Applications, click on “REEport (SAES – COLORADO STATE UNIVERSITY). From the REEport menu, click on Progress Report or Final Report depending on which is due. Select your project from the Draft Folder and complete.

#### The following are the guidelines for developing the Progress Report:

1. Target one key component of the research project.
2. Reports should emphasize significant accomplishments and their impact. **DO NOT** make a list of activities. Significant accomplishments are examples of research findings from the past year that are written in brief factual statements resulting in a paragraph. Do not repeat a previous year’s finding, but you can build upon earlier accomplishments with new or expanded findings.
3. The components of an accomplishment statement should include:
  - a. Short title describing the accomplishment.
  - b. A description of the specific problem addressed or major milestone achieved, major transfer of technology, or response to a customer and stakeholder need. The description could address: *What agricultural or forestry problem is being resolved? How serious is the problem? Who cares and why?*
  - c. A short description of the approach you used and who was involved in the effort.
  - d. State the results of the research in no more than a few sentences.
  - e. Document the impact of the research findings such as financial returns, social benefits, natural resources quality, resolution of conflict, or contributions to science-based knowledge.
4. Remember your audience when writing the accomplishment. Use layperson’s language and do not use undefined abbreviations or jargon. Avoid lists of activities, generalized statements, presentation of data without interpretations, or emphases on methods.

#### Overview of Annual Report Processing

1. The draft report is entered into the REEport portal and saved. Data entry should happen at the Project Director (PD) level, followed by review and edits by the Department Head/Associate Dean.
2. The Department Head and Associate Dean can review the reports on-line or review a printed copy. The Web page contains instructions on how to review previously entered reports. We are assuming that each College/Department will have a central point for entering the reports. **After all College/Department reviews are complete, the central contact should access each report, and make any final edits (print a copy for your files if necessary).** *Contact Jan when all reports are ready for review.* No further edits are allowed on the report by the College/Department. In this

way, the reports reviewed in the Director's office will be the final version approved by the College/Department.

3. Upon receipt of the signed Project Control List, the reports will be reviewed in the Director's office. If we identify a report that requires additional editing, our office will email the PD so edits can be done in the College/Department.
4. After the AES Director's Office review, all reports are submitted to the national CRIS database.

### **CRIS Requirements**

1. Measurement data should be reported in metric terms only.
2. Patents/Inventions: Patent applications and applications for Plant Variety Act protection are considered products and should be reported in the Products section of the report designated for that purpose.
3. Competitive (Non-Formula) Grant Reports: Progress reports for all active competitive grants should be submitted as defined in the Terms and Conditions.

## Implementation

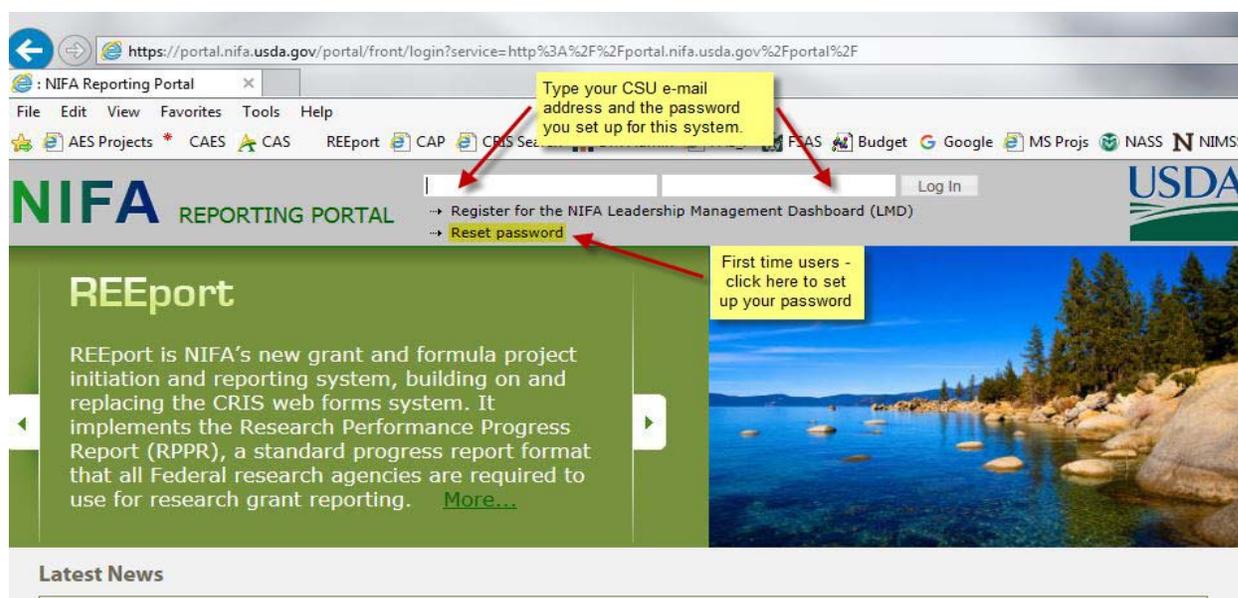
Attached is a list of AES projects for your department. Reports are due for all **Active** and **Terminated** projects. Grants are not included on the list as they have varying due dates throughout the year.

### REEport website

You will enter your project data from the NIFA Reporting Portal – REEport website.

- Using your internet browser, display the website located at <http://portal.nifa.usda.gov/>.
- Enter your email address and password at the top of the page.

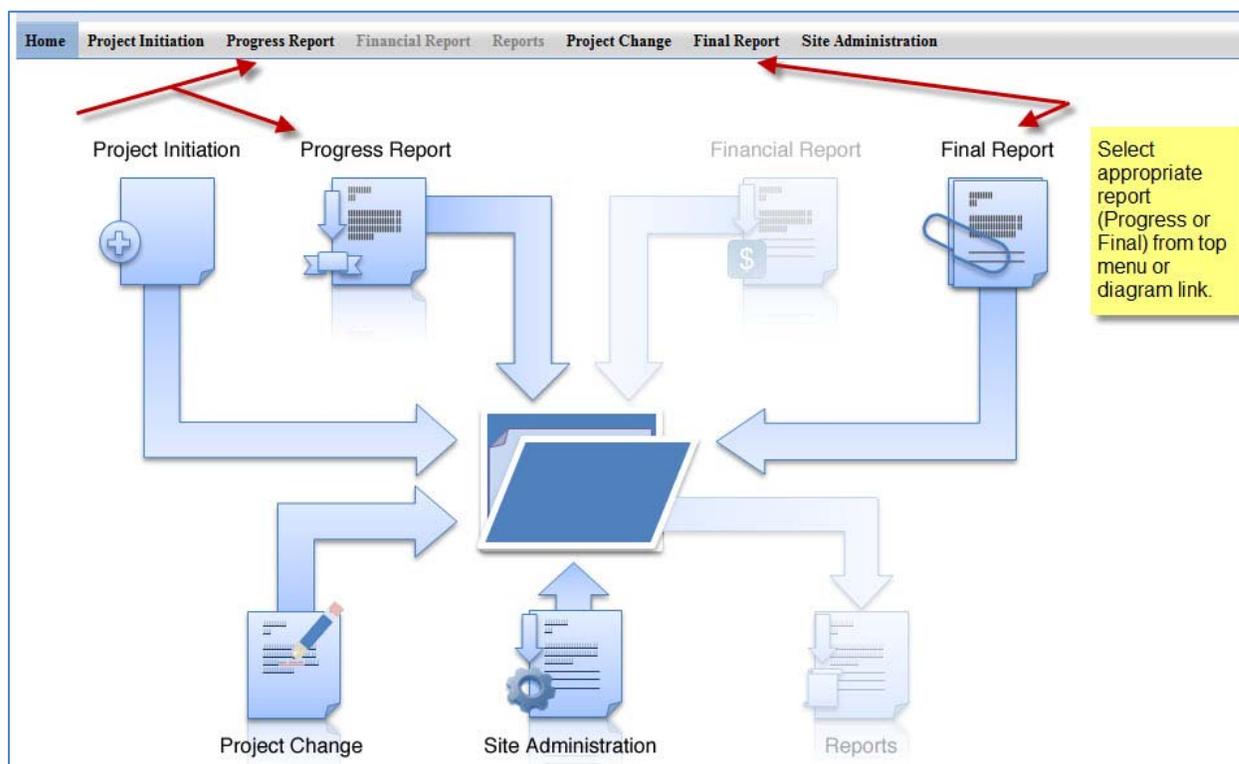
*If this is your first time accessing this website, click on the “Reset Password” link. Enter your CSU email address and click on SEND. You will receive an email with a link to reset your password.*



- Select the REEport (SAES – Colorado State University) application. (If you have an Extension project, select the EXT application.)



- Select the Progress Report or the Final Report module.



- Expand the DRAFT folder and click on the project you want to report on.

Expand All Folders Collapse All Folders

3 Progress Report(s) in Draft

Click on any underlined text to select one of projects displayed.

Accession #	Project #	Reporting Period	Grants.gov #	Proposal #	Project Director	Type	File	View
9000027	TEN0-tes...	2012-04-30-2012-09-30	(N/A)	(N/A)	Suping Zhou	EVANS-ALLEN	<u>TEST-101</u>	PDF 0
9000028	TEN0-0002	2012-03-30-2012-09-30	(N/A)	(N/A)	Richard Browning	EVANS-ALLEN	<u>test102</u>	PDF 0
9000009	TEN-12345	2011-10-05-2012-10-05	GRANT102469302009-02162		Suping Zhou	NON FORMULA	<u>Characterization of root proteomes f...</u>	PDF

## Cover Page

- The first screen is the **Cover page** which displays basic project information. You cannot change anything on this page (the "Project Change" tab is the only way to make changes, and only formula and state projects can be changed in REEport).

**Note:** All reports on formula and state projects are now to be done on the federal FY basis. The reporting period dates that are shown on this page are the period of time you are reporting on for this year. **This year**, the reporting period dates should be 10/01/15 – 09/30/16.

- Click the **Next** button to proceed to the first entry screen.

The next five pages are an example of a Progress Report, as printed. Fields from the report are highlighted and HELP text (in blue) follows each. For more detailed instructions on the REEport data entry screens, please view the on-line manual at: <https://nifa.usda.gov/sites/default/files/resource/REEport%20User%20Manual.pdf>

<b>Title:</b>	<b>Colorado Vegetable Crop Disease Management</b>		
<b>Sponsoring Agency</b>	NIFA	<b>Project Status</b>	CHANGED
<b>Funding Source</b>	Hatch	<b>Reporting Frequency</b>	Annual
<b>Accession No.</b>	156467	<b>Project No.</b>	COL00744
<b>Project Start Date</b>	07/01/2008	<b>Project End Date</b>	06/30/2013
<b>Reporting Period Start Date</b>	01/01/2013	<b>Reporting Period End Date</b>	06/30/2013
<b>Submitted By</b>		<b>Date Submitted to NIFA</b>	

### Project Director



Howard Schwartz  
970-491-6987

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### Recipient Organization

SAES - COLORADO STATE UNIVERSITY  
1800 GRANT ST STE 600  
DENVER, COLORADO 80203-1148

### Performing Department

Bioagricultural Sciences and Pest Management

DUNS No. 018058920

### Non-Technical Summary

Fungal, bacterial and viral pathogens and the diseases they cause on economically important vegetable crops can cause yield losses (quantity and quality) at a conservative level of 10 percent annually per crop in Colorado fields in the absence of timely integrated pest management strategies. During some years, environmental conditions generate foliar disease losses in excess of 15 to 20 percent on priority crops such as dry bean and onion, each of which has a direct value in excess of 40 to 50 million dollars annually to Colorado's economy and welfare. These pathogens can survive in previously infected crop debris and soil, be reintroduced annually via infested plant material or airborne particles or vectors, and be redistributed via water, implements and human activities. New crop infection and epidemic development are then dependent upon environmental conditions which persist during critical stages of the pathogen and its host plant throughout the year. Monitoring of the pathogen population, crop development and environmental conditions allow researchers to apply disease forecast models in support of timely scouting calendars and implementation of disease management strategies that are most economically effective and environmentally sensitive. The environmental component of this project is based upon continued access to and support of COAGMET which is a series of remote electronic weather recording stations situated in key irrigated production areas of Colorado. Disease management components that can be investigated and applied to each pathogen and its disease include crop rotation for 2 to 4 years, sanitation of previous crop debris, planting date, clean planting material, moderate plant density, fertility and irrigation practices, soil compaction alleviation, plant resistance, pesticide selection and timing, and harvest and post-harvest curing and handling. Results generated by this project will be utilized in integrated pest management programs that focus on foliar diseases of dry bean and onion in Colorado. Results will include: expanded understanding of the life cycle of each priority pathogen and disease in Colorado, e.g., white mold and bacterial wilt of dry bean, and viral diseases of onion; more effective and reliable disease forecasting models for each pathogen and its disease; more complete historical database of environmental variables from production regions in Colorado; COAGMET has generated continuous daily weather records at many sites since 1992; more timely disease management strategies, with emphasis upon the most selective pesticides when justified by disease forecast models, scouting and other IPM principles; more resistant and adapted cultivars of dry beans; and support for a timely technology transfer network (internet-based) that incorporates weather data, pathogen life cycle, disease sightings, crop development and other IPM components shared by researchers, extension personnel, crop consultants, and others.

### Accomplishments

#### Major goals of the project

1. Monitor foliar disease spectra and determine what pathogens are impacting vegetable crops such as dry bean and onion grown in Colorado.
2. Identify and incorporate sources of disease resistance within commercially acceptable cultivars of dry bean in collaboration with bean breeders.
3. Investigate the epidemiology of priority foliar fungal, bacterial, and/or viral pathogens of these crops in support of environmental monitoring, disease forecasting and integrated pest management strategies in Colorado.
4. Implement timely disease management components that will be most applicable for the economical production of these priority crops in Colorado; emphasis will be on technology transfer (VegNet and AlliumNet web sites) of pest biology and management to clientele.

The previous page lists the "major goals of this project." This is non-editable because it is prepopulated with what you entered as goals for the project in Project Initiation. This is helpful when filling in the various fields on the accomplishments page, as anything reported on those fields should relate directly back to the goals of the project.

**What was accomplished under these goals? (This narrative is required.)**

**In this section, NIFA defines Accomplishments as impacts and outcomes achieved as a result of the project AND the results of the experiments that led to the impacts and outcomes.**

At the beginning of this box, before information on specific goals and objectives, include a statement of 1 to 2 paragraphs describing the **IMPACT** of your project. This statement will be a primary tool for briefing leadership and legislators about what has been accomplished with the public funding invested in grant programs. Refer back to the non-technical summary you provided at the outset of your project. This impact statement should reflect the results and conclusion of your work that will provide benefits to broad audiences. It is imperative that this portion of your report be written in plain, non-technical language. Please do feel free to use numbers that will be meaningful to non-scientific audiences such as community leaders, politicians, taxpayers, and farmers. You will need to translate results of your work into lay terms – things that everyday people can relate to. Consider reporting things like changes in economics, community dynamics, environmental conditions, or agricultural norms.

How to accomplish this:

Revisit the logic model for your project if you have one. Impact statements should arise from the outcomes described in a logic model. A good impact statement in a final report has three elements:

1. State the issue in terms that will connect with a broad audience. Think back to what need you were seeking to address when you proposed the project.
2. Describe, in general terms, who did what, and the results. Specific quantitative values or trends help validate the impact.
3. Translate those results into broader outcomes in the real world. Engage your peripheral vision in order to remember how the work you are doing is important to the bigger picture and then explain that simply and directly.

NEXT: For each goal listed in your project initiation form, there will be a numbered list of objectives. Please continue to use this format by numbering and restating the objective you are reporting on. Be certain to report on ALL objectives. For each objective, report for this reporting period on:

- 1) Major activities completed / experiments conducted;
- 2) Data collected;
- 3) Summary statistics and discussion of results and
- 4) Key outcomes or other accomplishments realized.

**For the impact statement and #4 above, remember that impacts and key outcomes/accomplishments are defined as changes in knowledge, action, or condition.**

- **A change in knowledge** occurs when the participant (scientist, trainee, or citizen) learns or becomes aware. **Examples** of a change in new fundamental or applied knowledge significant enough to be included in a publication; methods and techniques; policy knowledge; improved skills; or increased knowledge of decision-making, life skills, and positive life choices among youth and adults.
- **A change in action** occurs when there is a change in behavior or the participants act upon what they have learned (adoption of techniques and methods or a change in practice). **Examples** of a change in actions include: application and actual use of fundamental or applied knowledge; adoption of new or improved skills; direct application of information from publications; adoption and use of new methods or improved technologies; use of skills by youth and adults in making informed choices; adoption of practical policy and use of decision-making knowledge.
- **A change in condition** occurs when a societal condition is changed due to a participant's action. **Examples** of a change in conditions include: development of human resources; physical, institutional, and information resources that improve infrastructure technology transfer; management and behavioral changes and adjustments; quantified changes in descriptive statistics (trade balance, export sales, etc.); better and less expensive animal health; changes in conditions (e.g., wages, health care benefits, etc.) of the agricultural workforce; higher productivity in food provision; quantified changes in quality-of-life for youth and adults in rural communities; safer food supply; reduced obesity rates and improved nutrition and health; or higher water quality (e.g., increased water clarity) and a cleaner environment (e.g., measurably reduced pollution).

**NOTE:** Include a discussion of stated goals not yet met. As the project progresses, the emphasis in reporting in this section should shift from reporting activities to reporting accomplishments (such as in later Progress Reports or in the Final Report of this project).

### What opportunities for training and professional development has the project provided?

Describe opportunities for training and professional development provided to anyone who worked on the project or anyone who was involved in the activities supported by the project.

- **Training** activities are those in which individuals with advanced professional skills and experience assist others in attaining greater proficiency. Training activities may include, for example, courses or one-on-one work with a mentor.
- **Professional development** activities result in increased knowledge or skill in one's area of expertise and may include workshops, conferences, seminars, study groups, and individual study. Include participation in conferences, workshops, and seminars not listed under major activities.
- If the research is not intended to provide training and professional development opportunities or there is nothing significant to report during this reporting period, click the "nothing to report" box.

### How have the results been disseminated to communities of interest?

- Describe how the results have been disseminated to communities of interest. Include any outreach activities that have been undertaken to reach members of communities who are not usually aware of these research activities for the purpose of enhancing public understanding and increasing interest in learning and careers in science, technology, and the humanities.
- You may click the "nothing to report box"

### What do you plan to do during the next reporting period to accomplish the goals?

- Describe briefly what you plan to do during the next reporting period to accomplish the goals and objectives. Paragraphs and/or lists are acceptable. Make sure to highlight specific actions you will take that will address any issues or problems you encountered during this current reporting period.
- You may click the "nothing to report box"

### Participants

- Project Director and Co-Project Directors: Both of these fields are prepopulated with the information originally entered in project initiation; any changes would need to be made through the "Project Change" module.

### Actual FTEs for this Reporting Period

- Enter the actual Full-time Equivalent(s) (FTE) that supported this project over the course of this reporting period only (reporting period is one year or less; refer back to your cover page for the exact reporting period). Even in the Final Report, you should report FTEs for the final reporting year only.

**Note:** There is a "nothing to report" box under the text "Actual FTEs for this Reporting Period" field. You may click this box if there were no actual FTEs used to support this project for the reporting period being reported against.

An FTE is defined by the Government Accountability Office (GAO) as *the number of total hours worked divided by the maximum number of compensable hours in a full-time schedule as defined by law*. For most NIFA partners and places of employment, a full-time schedule as defined by law equates to 2,080 hours of work (52 weeks multiplied by 40 hours per week). Thus, a person who works 40 hours per week for 52 weeks towards a project equals 1 FTE. A person who works 20 hours per week towards a project for 52 weeks per year equals .5 of an FTE.

Instructions: You may enter fractions of FTEs rounded to the nearest tenth. You should include all FTEs that supported the project, regardless of source of funding (i.e. FTEs funded by NIFA non-formula or formula grants, other Federal funds, State, or Other funds should be included). Make sure to separate the FTEs by type as indicated on the table provided: Faculty and Non-Students in the first column and Students with Staffing Roles in the subsequent three columns. Also ensure that the FTE categories are correctly populated, differentiating between the following:

- **Scientist:** A research worker responsible for original thought, judgments, and accomplishments in independent scientific study. This includes investigation leaders and project leaders and portions of the time of supervising scientists or staff assistants who meet the preceding definition. *Examples: Professor, Associate Professor, Assistant Professor, Scientist.*

- **Professional:** A professional does not qualify as a scientist under the preceding definitions but may still significantly contribute to research activities. Professionals usually hold one or more college degrees and have otherwise qualified for employments in a professional category. Generally, professionals have a high degree of research activity responsibility but do not hold principal investigator status or equivalent at the reporting institution. *Examples: Department Head, Resident Director, Statistician, Analyst, Assistant Director, Dean.*
- **Technical:** Technical Staff are associated with research efforts in a technical capacity and do not participate in the investigative aspects of the research. *Examples: Lab Assistant, Mechanic, Carpenter, Machinist, Skilled Tradesperson.*
- **Administrative and Other:** These are clerical and support staff who contribute to the non-technical support of the project. It is often difficult to assess an individual's clerical and labor support to any one project; they usually support groups of researchers of different projects in a broad manner, such as by ordering supplies, typing reports, managing bill payments, performing janitorial work. *Examples: Secretary, Typist, Repairman, Janitor, Data Entry.*

Role	Faculty and Non-Students	Students within Staffing Roles			Computed Total by Role
		Undergraduate	Graduate	Post-Doctorate	
Scientist	0	0	0	0	0
Professional	0	0	0	0	0
Technical	0	0	0	0	0
Administrative	0	0	0	0	0
Other	0	0	0	0	0
Computed Total	0	0	0	0	0

### Student Count by Classification of Instructional Programs (CIP) Code

- If any **Student FTEs** are reported, then it is now required to enter any applicable CIP codes, and vice versa.
- The data entered into the Undergraduate, Graduate, or Post-Doctorate CIP fields, are the **Number of Students** that worked on the project, and therefore must be whole numbers.
- Student FTEs and CIP codes are interconnected data points, and the data entered into these sections must have a logical relationship. There are automatic validations programmed into the system which will indicate if any of the numbers entered need to be adjusted. For example – if 5.0 FTEs was entered for Graduate students, then 5 or more must be entered into the Graduate section for the CIP codes.
- The CIP code chosen should reflect the student's major field of study.
- The CIP taxonomy includes about 5,000 codes, categorized into three tiers. The list of CIP codes provided in the dropdown menu in REEport includes tiers 1 and 2, or about 400 codes.
- For more information on CIP Codes, please go to the CIP website at <http://nces.ed.gov/ipeds/cipcode>, where you can find more detailed information about the CIP coding system.

### Target Audience

- The target audience(s) you describe should include only those that your efforts reached during the current reporting period; this may mean that the audiences you list are only a subset of the all those you included on your project initiation.

**Target audiences** include individuals, groups, market segments, or communities that will be served by the project. Where appropriate, you should also identify population groups such as racial and ethnic minorities and those who are socially, economically, or educationally disadvantaged.

**Efforts** include acts or processes that deliver science-based knowledge to people through formal or informal educational programs. Examples include: formal classroom instruction, laboratory instruction, or practicum experiences; development of curriculum or innovative teaching methodologies; internships; workshops; experiential learning opportunities; extension and outreach.

- You may click the "nothing to report box"

## Products

- Identify the standard products/outputs that were achieved during the period of performance for this progress report (previous fiscal year or portion of previous fiscal year). "Standard products/outputs" includes only major publications, patents, and applications for plant variety protection (PVP). You will need to report other types of products/outputs achieved on the "Other Products" page of this Progress Report.
- Report only the major publication(s) resulting from the work under this project/award. If this is NOT the first progress report you've submitted, do not include publications already included in any previously submitted progress report(s). There is no restriction on the number. However, agencies are interested in only those publications that most reflect the work under this project/award. See definitions below for the categories of publications.
  - **Publications** are the characteristic product of research. Agencies evaluate what the publications demonstrate about the excellence and significance of the research and the efficacy with which the results are being communicated to colleagues, potential users, and the public, not the number of publications.
    - **Journal publications:** Peer-reviewed articles or papers appearing in scientific, technical, or professional journals. Include any peer reviewed publication in the periodically published proceedings of a scientific society, a conference, or the like. A publication in the proceedings of a one-time conference, not part of a series, should be reported under "Books or other non-periodical, one-time publications."
    - **Books or other non-periodical, one-time publications:** Any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series. Include any significant publication in the proceedings of a one-time conference or in the report of a one-time study, commission, or the like.
    - **Other publications, conference papers and presentations:** Identify any other publications, conference papers and/or presentations not reported above.
  - **Patent(s) and Plant Variety Protection(s) (PVP)** Identify inventions for which patents or plant variety protection (PVP) has been or will be sought. Include patent/PVP applications that have been filed with the patent or PVP office for more than 18 months. Include the date of application for an award of patent /PVP protection and/or licenses that have resulted from the research. Submission of this information as part of this Progress Report is not a substitute for any other invention reporting required under the terms and conditions of any award.
- You may click the "nothing to report box".

## Other Products

- Enter the significant products/outputs achieved during the project duration as a result of the project's research, extension or education activities. NIFA considers the terms "products" and "outputs" to be synonymous. Do not include publications, patents, and plant variety protection applications; those should be included only on the "Products" page of this report.
- Other Products/Outputs are *activities, events, services, and products that reach people*.
  - *Activities* include: conducting and analyzing experiments or surveys, assessments, facilitating, teaching, or mentoring.
  - *Events* include: conferences, demonstration sites, field days, symposia, workshops, and trainings.
  - *Services* include: consulting, counseling, and tutoring.
  - *Products* include: audio or video products; curricula; data or databases; equipment or instruments; models; networks and/or collaborations fostered by the project or activity; physical collections or resources, new animal germplasm, or genetic maps; software; technology, methods, or techniques; train-the-trainer manuals; website(s) with the appropriate URL(s); information, skills, and technology for individuals, communities, and programs; or students graduated in agricultural sciences.
- You may click the "nothing to report box"

## Changes/Problems

- Describe major changes/problems 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.
- Major changes include:
  - major problems or delays that may have a significant impact on the rate of expenditure;
  - significant deviations from research schedule or goals;
  - unexpected outcomes; or
  - changes in approved protocols for the use or care of animals, human subjects, and/or biohazards encountered during the reporting period.
- You may click the "nothing to report box"

- If you have more than one project to report on, select the appropriate report and project. Follow the same steps as outlined previously.
- After all reports are reviewed and approved (you are completely finished with the report and do not need to edit it further), your department central contact should contact Jan at [jan.iron@colostate.edu](mailto:jan.iron@colostate.edu). The CAES Director's office will submit the reports to CRIS after review.

**Timetable**

By January 5 Project Directors complete input to Department Head/Chair

If you have any questions regarding 2017 reports, please call Jan Iron at 1-7403. Any comments regarding the process, please call Eugene Kelly at 1-6274.