U.S. Wheat & Barley Scab Initiative

FY14 Request for Pre-Proposals

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517-355-0271 ext. 1183
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Note: All Individual Pre-Proposal forms may be viewed and downloaded from the FY14
RFP Website: http://www.scabusa.org/research_rfp14
EXECUTIVE SUMMARY
FY14 Request for Pre-Proposals (RFP) - Quick Start
Read this First!

What is new for FY14?

• The USWBSI is soliciting proposed research for the following:

  ➢ Commodity- and VDHR-based Coordinated Projects (CP):
     ▪ Barley (BAR-CP);
     ▪ Durum (DUR-CP); and
     ▪ Hard Winter Wheat (HWW-CP)
     ▪ VDHR Regional Nurseries:
       o Spring Wheat (VDHR-SPR);
       o Northern Soft Winter Wheat (VDHR-NWW); and
       o Southern Soft Winter Wheat (VDHR-SWW)
     For more information, please turn to page 16.

  ➢ FHB Management (MGMT) Coordinated Projects:
     ▪ Integrated Management Studies (IM) Coordinated Project; and
     ▪ Uniform Fungicide and Biological Control Trials (UT) Coordinated Project
     For more information, please turn to page 23.

  ➢ Research Area Individual Project Pre-Proposals:
     ▪ FHB Management (MGMT);
     ▪ Food Safety, Toxicology and Utilization of Mycotoxin-contaminated Grain (FSTU);
     ▪ Gene Discovery and Engineering Resistance (GDER);
     ▪ Pathogen Biology and Genetics (PBG).
     For more information, please turn to page 30.

• Research priorities and action plan goals have changed. For more information, please turn to page 8 or view the action plan at http://scabusa.org/pdfs/uswbsi_action-plan_web.pdf.

• Updated Budget Justification Form (All Categories): The Budget Justification form has been expanded to provide more detailed descriptions/explanations of line items. The aim in modifying this form is to provide the review panels more specific information for reviewing the funding requests.

What is included in this document? This document contains only the instructions for submitting pre-proposals for FY14. All RFP forms must be downloaded from the RFP website at: http://scabusa.org/research_rfp14

Categories of Pre-Proposals for FY14:

There are three distinct categories of FY14 Pre-Proposals: 1) Proposed Research Projects submitted to one of the Coordinated Projects (CP) listed above; 2) Proposed Research Projects submitted to one of the FHB Management (MGMT) Coordinated Projects (CP) listed above; and 3) Research Area Individual Pre-Proposals submitted to one of the research areas listed above. For more information on these three categories, see page 3.
IMPORTANT DEADLINES FOR ALL CATEGORIES

<table>
<thead>
<tr>
<th>Description of Item:</th>
<th>Deadline:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Registration for Electronic Pre-Proposal Submission (EPS) System Begins</td>
<td>July 15, 2013</td>
</tr>
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<td>August 5, 2013</td>
</tr>
<tr>
<td>Pre-Registration for EPS System Closes</td>
<td>August 30, 2013</td>
</tr>
</tbody>
</table>

To see additional ‘Category’ specific deadlines, turn to page 7.

PREFACE

The FY14 Request for Pre-Proposals is based on the USWBSI’s Action Plan which will lead to greater collaboration and communication, and more rapid attainment of the Initiative’s primary goal: “To develop as quickly as possible effective control measures that minimize the threat of Fusarium head blight (scab), including the reduction of mycotoxins, to the producers, processors, and consumers of wheat and barley.” To read the complete action plans for all research areas go to http://www.scabusa.org/pdfs/uswbsi_action-plan_web.pdf.

FY14 Research Categories (RC)

Below are the Research Categories for which FY14 pre-proposals will be accepted:

1. Commodity- and VDHR-based Coordinated Projects:
   - Barley Coordinated Project (BAR-CP)
   - Durum Coordinated Project (DUR-CP)
   - Hard Winter Wheat Coordinated Project (HWW-CP)
   - Variety Development and Host Resistance – Spring Wheat Region (VDHR-SPR)
   - Variety Development and Host Resistance - Northern Soft Winter Wheat Region (VDHR-NWW)
   - Variety Development and Host Resistance - Southern Soft Red Winter Wheat Region (VDHR-SWW)

2. FHB Management Coordinated Projects:
   - Integrated Management Studies (IM)
   - Uniform Fungicide/Biocontrol Trials (UT)

3. Research Area (RA) Individual Project Pre-Proposals:
   - FHB Management (MGMT)
   - Food Safety, Toxicology and Utilization of Mycotoxin-contaminated Grain (FSTU)
   - Gene Discovery and Engineering Resistance (GDER).
   - Pathogen Biology and Genetics (PBG).

Program descriptions and research priorities for the research categories listed above are included in this document (Page 8), and may also be accessed at http://www.scabusa.org/research_rfp14. Proposed research should be based on the FY14-15 research priorities which are derived from the goals of the Action Plan.
Requests for Funding

There are three distinct categories of FY14 Pre-Proposals: 1) Commodity and VDHR-based Coordinated Projects; 2) FHB Management Coordinated Projects; and 3) Research Area Individual Pre-Proposals. An overview of the three categories follows:

1) Commodity and VDHR-based Coordinated Projects (CPs): If the primary focus of your proposed research (all USWBSI Research Areas) is on Barley, Durum or Hard Winter Wheat, you should submit your proposed research to the appropriate Coordinated Project Committee (CPC). If your proposed research is in the area of Variety Development and Host Resistance, and you work within one of the Uniform Nursery Regions (see page 16 to find your regional nursery), you must submit your proposed research to the appropriate VDHR Uniform Nursery Coordinated Project Committee. Please follow the instructions under Section 1 - Commodity and VDHR-based Coordinated Projects (CPs) – Proposed Research Projects (instructions begin on page 16).

2) FHB Management Coordinated Project (CPs): If your proposed research fits into one of the FHB Management Coordinated Projects listed below, please follow the instructions and forms under Section 2 titled “FHB Management Coordinated Project (CPs) – Proposed Research Projects” (instructions begin on page 23) to submit your proposed research.
   - Integrated Management Studies (IM)
   - Uniform Fungicide/Biocontrol Trials (UT)

3) Research Area Individual Project Pre-Proposals: If your proposed research is in one of the research areas listed on page 2 and is not associated with a Commodity, VDHR or FHB Management Coordinated Project, please follow the instructions under Section 3 titled “Research Area Individual Project Pre-Proposals” (instructions begin on page 30) to submit your pre-proposal.

Enhancement of USWBSI Communication Activities: The USWBSI is interested in receiving pre-proposals that innovatively address this need. PIs should follow the instructions under Category 3: Individual Research Area Pre-Proposals. In Box 16 of the Application for Funding Cover Page, select option ‘None of the above’.

PIs are welcome and encouraged to interact with any of the contacts (listed on page 6) for the Coordinated Projects or Research Areas, or the Networking & Facilitation Office, to identify the appropriate area for their proposed work.

Electronic Submission of FY14 Pre-Proposals:

The Electronic Pre-Proposal Submission (EPS) System (web-based) must be used for the submission of all Research Area Individual Pre-Proposals (Category 3) as well as supporting documents for all categories. General instructions for completing pre-proposals and supporting documents for electronic submission are included in this document.

The on-line submission process begins with the completion of the ‘Pre-Registration Process’. The pre-registration period opens July 15, 2013 and must be completed no later than August 30, 2013. Information submitted during this process will be used to setup accounts for PIs and co-PIs. The Electronic Pre-Proposal Submission (EPS) System will open August 5th. Information needed for
accessing the EPS System will be distributed to PIs within 48 normal business hours after 
completing the ‘Pre-Registration Process’.

The USWBSI does not require signatures by the Authorized Organizational Representatives 
(AORs) on pre-proposals/proposed research projects, so AORs will not require access to the EPS 
system. If PI’s institution requires approval from the Authorized Organizational Representative 
(i.e. Grants or Sponsored Programs Office) on ‘pre-proposals’, included in the RFP is a special 
form that can be used at the institutional level for obtaining approval by the PI’s sponsored 
programs office. The form can be downloaded from the FY14 RFP website at 

INTRODUCTION

After carefully reading the ‘PREFACE’ and ‘FY14-15’ Research Category Program Descriptions 
and Research Priorities’, you are ready to create your proposed research requests. Below are a few 
helpful hints to guide you through this process:

1. First, determine the appropriate Category for your proposed research: 1) Commodity- or 
   VDHR-based Coordinated Project; 2) MGMT Coordinated Project; or 3) Research Area 
   Individual Project Pre-Proposal. You may contact any individual listed in Table 1 (page 6) 
   to help determine the most appropriate category for your proposed research.
2. If Category 1 or 2 was selected in step 1, determine the Coordinated Project that best fits 
   your proposed research.
3. If Category 3 was selected, determine the appropriate Research Area for your proposed 
   research.
4. Finally, follow the instructions in the corresponding section to complete your proposal.

NOTE: Proposals that do not fit into one of the coordinated projects or research areas (listed on 
page 3) for which proposals are being accepted for FY14 are also welcome. Follow the 
instructions under Section 3 to complete and submit your pre-proposal.

CONFORMANCE WITH INSTRUCTIONS FOR PRE-PROPOSAL PREPARATION:

It is important that all pre-proposals conform to the instructions provided in the FY14 Request for 
Project Pre-Proposal Application. The USWBSI’s Networking & Facilitation Office may return, 
without review, any pre-proposals that are not consistent with these instructions. The NFO must 
authorize any deviations from these instructions in advance of pre-proposal submission. 
Deviations must be authorized by written approval from the NFO Director (dvs@uky.edu) or 
Manager (scabusa@scabusa.org).

COLLABORATIVE PROJECTS:

In addition to the Coordinated Projects, other collaborative projects within or across research areas 
are encouraged. PIs who intend to submit pre-proposals with similar objectives, methods, 
treatments, etc. should coordinate their efforts to produce a single, unified pre-proposal rather than 
similar, separate pre-proposals. If you are part of a collaborative project, and your proposed 
project is approved for funding, the funding will come in the form of a direct agreement between 
USDA-ARS and your institution.
REVIEW AND FUNDING RECOMMENDATION PROCESS:

Please note that proposed research projects and pre-proposals will be regarded as confidential documents. Distribution will be limited only to parties involved with the review process. All pre-proposals received by the assigned deadline will be sent for review to one of the designated review panels. The Executive Committee will then review the panels’ recommendations and if necessary, modify the awards to conform to the FY14 Congressional budget and the overall objectives of the Initiative. The final step is approval of the EC’s recommended research plan and budget by the Steering Committee in early December. All PI's whose pre-proposals or proposed research project(s) are recommended for funding by the Initiative will be asked to compile and formalize their proposed research into ‘Grant Applications’ for inclusion in the Initiative’s recommended research plan (approximately mid- to late-January). The recommended comprehensive plan will be sent to USDA-ARS in the early months of 2014. More detailed information on the review process for each pre-proposal category is available on the RFP website - http://www.scabusa.org/research_rfp14.

REVISIONS TO PRE-PROPOSALS MADE DURING THE REVIEW PROCESS:

In the event of a significant development (e.g., research findings, changed circumstances, unavailability of PI, etc.) that might materially affect the outcome of the review of a pending pre-proposal, the PI must contact the Director of the NFO to discuss the issue. Depending on the outcome of that discussion, the PI may be allowed to submit a one-page update to the NFO. The NFO will provide a form and deadline for the update. Submitting additional information must not be used as a means of circumventing page limitations or stated deadlines.

NEED HELP?

If you have any questions regarding this application or the pre-proposal process, please contact the U.S. Wheat and Barley Scab Initiative’s Networking and Facilitation Office (NFO) by phone at (517) 355-0271 ext. 1183 or by e-mail at scabusa@scabusa.org.

To facilitate pre-proposal preparation, a Frequently Asked Questions (FAQs) document pertaining to preparation and submission of pre-proposals has been developed and is available electronically on the USWBSI’s Website at:

http://scabusa.org/pdfs/rgp_faq.pdf

The FAQ document will be updated regularly as questions and requests for clarification are submitted to the Networking & Facilitation Office (NFO).
### Table 1. Contacts for Research Areas, Coordinated Projects and the Networking & Facilitation Office (NFO).

<table>
<thead>
<tr>
<th>RESEARCH AREAS (RA)</th>
<th>CONTACT</th>
<th>EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHB Management (MGMT)</td>
<td>Erick DeWolf, Kansas State Univ.</td>
<td><a href="mailto:dewolf1@ksu.edu">dewolf1@ksu.edu</a></td>
</tr>
<tr>
<td>Food Safety, Toxicology and Utilization of Mycotoxin-contaminated Grain (FSTU)</td>
<td>Jim Pestka, Michigan State Univ.</td>
<td><a href="mailto:pestka@msu.edu">pestka@msu.edu</a></td>
</tr>
<tr>
<td>Gene Discovery and Engineering Resistance (GDER)</td>
<td>Gary Muehlbauer, Univ. of Minnesota</td>
<td><a href="mailto:muehl003@umn.edu">muehl003@umn.edu</a></td>
</tr>
<tr>
<td>Pathogen Biology and Genetics (PBG)</td>
<td>David Schmale, Virginia Tech.</td>
<td><a href="mailto:dschmale@vt.edu">dschmale@vt.edu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COORDINATED PROJECTS (CP)</th>
<th>CONTACT</th>
<th>EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT-CP Integrated Management Studies (IM)</td>
<td>Pierce Paul, Ohio State Univ.</td>
<td><a href="mailto:paul.661@osu.edu">paul.661@osu.edu</a></td>
</tr>
<tr>
<td>MGMT-CP Uniform Fungicides/Biocontrol Trials (UT)</td>
<td>Madeleine Smith, Univ. of Minnesota</td>
<td><a href="mailto:smit7273@crk.umn.edu">smit7273@crk.umn.edu</a></td>
</tr>
<tr>
<td>Barley (BAR)</td>
<td>Robert Brueggeman, North Dakota State Univ.</td>
<td><a href="mailto:Robert.Brueggeman@ndsu.edu">Robert.Brueggeman@ndsu.edu</a></td>
</tr>
<tr>
<td>Durum (DUR)</td>
<td>Steven Xu, USDA-ARS, ND</td>
<td><a href="mailto:Steven.Xu@ARS.USDA.GOV">Steven.Xu@ARS.USDA.GOV</a></td>
</tr>
<tr>
<td>Hard Winter Wheat (HWW)</td>
<td>Bill Berzonsky, Bayer CropScience, NE</td>
<td><a href="mailto:bill.berzonsky@bayer.com">bill.berzonsky@bayer.com</a></td>
</tr>
<tr>
<td>VDHR Uniform Nursery – Spring Wheat (VDHR-SPR)</td>
<td>Jochum Wiersma, Univ. of Minnesota</td>
<td><a href="mailto:wiers002@umn.edu">wiers002@umn.edu</a></td>
</tr>
<tr>
<td>VDHR Uniform Nursery – Northern Soft Winter Wheat (VDHR-NWW)</td>
<td>Clay Sneller, Ohio State Univ.</td>
<td><a href="mailto:sneller.5@osu.edu">sneller.5@osu.edu</a></td>
</tr>
<tr>
<td>VDHR Uniform Nursery – Southern Soft Red Winter Wheat (VDHR-SWW)</td>
<td>Paul Murphy, North Carolina State Univ.</td>
<td><a href="mailto:Paul_Murphy@ncsu.edu">Paul_Murphy@ncsu.edu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NETWORKING &amp; FACILITATION OFFICE (NFO)</th>
<th>CONTACT</th>
<th>PHONE NUMBER/E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Questions regarding the RFP Process</td>
<td>Dave Van Sanford, Director</td>
<td>859-338-2409 <a href="mailto:dvs@email.uky.edu">dvs@email.uky.edu</a></td>
</tr>
<tr>
<td></td>
<td>Sue Canty, Manager</td>
<td>517-290-5023 <a href="mailto:scabusa@scabusa.org">scabusa@scabusa.org</a></td>
</tr>
</tbody>
</table>

1VDHR – Variety Development and Host Resistance
# IMPORTANT RFP DATES AND DEADLINES

## FOR FY14 PRE-PROPOSALS

### IMPORTANT DATES AND DEADLINES

*(ordered by Category and then date)*

<table>
<thead>
<tr>
<th>RFP Category</th>
<th>Description of Item:</th>
<th>Deadline:</th>
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<tbody>
<tr>
<td><strong>Category 1: Commodity and VDHR-based Coordinated Projects</strong></td>
<td>Letter of Intent (LOI) sent to CP Chair and NFO (electronic version acceptable)</td>
<td>July 10, 2013</td>
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<td>CP Chairs notify all PIs who submitted Letters of Intent to their CP whether their proposed research has been accepted into the CP’s FY14 Pre-Proposal.</td>
<td>August 9, 2013</td>
</tr>
<tr>
<td></td>
<td>Pre-Registration for EPS System Closes</td>
<td>August 30, 2013</td>
</tr>
</tbody>
</table>
| | • E-version of Proposed Research Project (PRP) sent to CPC Chair and NFO.  
| | • CV/Publication List, and Current and Pending Support Form uploaded to EPS System. | September 10, 2013 |
| | Submission of FY14 CP Pre-Proposals by CPCs. | October 11, 2013 |
| **Category 2: FHB Management Coordinated Projects** | Letter of Intent (LOI) sent to CP Chair and NFO (electronic version acceptable) | July 10, 2013 |
| | Pre-Registration for EPS System Begins | July 15, 2013 |
| | EPS System Opens | August 5, 2013 |
| | CP Chairs notify all PIs who submitted Letters of Intent to their CP whether their proposed research has been accepted into the CP’s FY14 Pre-Proposal. | August 9, 2013 |
| | Pre-Registration for EPS System Closes | August 30, 2013 |
| | • E-version of Proposed Research Project (PRP) sent to CPC Chair and NFO.  
| | • CV/Publication List, and Current and Pending Support Form uploaded to EPS System. | September 10, 2013 |
| | Submission of FY14 MGMT-CP Pre-Proposals by CPCs. | October 11, 2013 |
| **Category 3: Research Area Individual Pre-Proposals** | Pre-Registration for EPS System Opens | July 15, 2013 |
| | EPS System Opens | August 5, 2013 |
| | Pre-Registration for EPS System Closes | August 30, 2013 |
| | Submission of FY14 Pre-Proposal(s) and supporting documents via the EPS System. | September 17, 2013 |

**Need Help?** Please contact (see previous page) Sue Canty or Dave Van Sanford if you have questions.
FY14-15 Research Categories (Areas and Coordinated Projects) Program Descriptions and Research Priorities

FHB MANAGEMENT (MGMT)

Program Description:

The FHB Management (MGMT) research area supports research to develop effective and economical disease management practices that reduce FHB severity and mycotoxins in small grain crops to meet the immediate and long-term needs of the wheat and barley industries.

This research area involves:

- tillage practices, crop sequences, and other cultural practices targeting *Fusarium*-infested residues;
- fungicides and biocontrol agents with demonstrated field efficacy, and their application technologies;
- the refinement and deployment of disease prediction and forecasting models, and disease management decision tools; and
- studies of pathogen survival, inoculum production, dispersal, infection, colonization, mycotoxin production, and factors accounting for unacceptable levels of mycotoxins in symptomatic or asymptomatic grain.

NOTE: Priority will be given to multi-PI, collaborative, integrated pre-proposals that address the research priorities listed below. Pre-proposals pertaining to uniform integrated management (IM) trials and uniform fungicide/biocontrol trials (UT) will be developed as multi-PI, collaborative, integrated proposals. Coordinators for those integrated proposals are listed on pages 6 and 23 of the FY14 RFP.

FY14-15 Research Priorities derived from Action Plan Goals:

1. Develop integrated management strategies for FHB and mycotoxins that are robust to conditions experienced in production fields of wheat and barley.
2. Help develop and validate the next generation of management and mitigation tools for FHB and mycotoxin control.
3. Develop a full understanding of specific factors influencing infection and toxin accumulation that can be used to develop the next generation of scab and DON risk assessment measures.
4. Enhance communication and end user education/outreach.
FOOD SAFETY, TOXICOLOGY AND UTILIZATION OF MYCOTOXIN-CONTAMINATED GRAIN (FSTU)

Program Description:

The Food Safety, Toxicology and Utilization of Mycotoxin-Contaminated Grain (FSTU) research area supports research on food safety and food processing issues related to the presence of *Fusarium* spp. mycotoxins in wheat and barley grain. Practical outcomes of research in this area include: 1) improved toxicological data to assure that current guidelines are providing the appropriate safety factors for the consumer; 2) analytical tools that can be used by small grain producers, elevators, millers, and processors, to rapidly and reliably identify mycotoxin-contaminated grain; 3) develop appropriate strategies to deal with contaminated grain; and 4) diagnostic data on *Fusarium* spp. mycotoxins required for development of FHB resistant/tolerant varieties of wheat and barley.

FY14-15 Research Priorities derived from Action Plan Goals:

1. Provide analytical support for DON/trichothecene quantitation for Initiative’s stakeholders.
2. Provide requisite information on DON/trichothecene safety issues to producers, millers, researchers, risk assessors, and regulators.

GENE DISCOVERY AND ENGINEERING RESISTANCE (GDER)

Program Description:

The Gene Discovery and Engineering Resistance (GDER) research area (RA) will focus primarily on the identification of genes from wheat and barley that can be used to increase FHB resistance and/or reduce DON accumulation, and on development of engineered strategies for FHB resistance or reduced DON levels. Gene discovery and transformation of non-cereal systems will be supported only for the purpose of rapidly screening potential anti-*Fusarium* genes.

FY14-15 Research Priorities derived from Action Plan Goals:

1. Characterize the genetic function of existing and novel loci for FHB resistance.
2. Identify candidate genes for resistance against FHB and/or reduced DON accumulation.
3. Develop effective FHB resistance and/or reduced DON accumulation through transgenic strategies.
4. Develop improved methods for the generation of transgenic wheat and/or barley.
PATHOGEN BIOLOGY AND GENETICS (PBG)

Program Description:

Research in this area includes studies that address mycotoxin biosynthesis in vivo or in planta, host/parasite interactions, and host resistance mechanisms that target the pathogen. Research in PBG should complement and be linked to whole plant research that will lead to disease control and/or toxin reduction strategies.

FY14-15 Research Priorities derived from Action Plan Goals:

1. Characterize plant-fungal interactions in plant lines (including transgenic lines) being developed by the USWBSI.
2. Develop new strategies for reducing impact of FHB disease and mycotoxin contamination in barley and wheat. Focus on pathogen genes and responses, including specific host target genes.

VARIETY DEVELOPMENT AND HOST RESISTANCE (VDHR)

Program Description:

The VDHR research area will be Uniform Nursery based in the case of soft winter wheat and spring wheat. States will be aligned with the uniform nurseries as follows: Uniform Regional Scab Nursery for Spring Wheat Parents (MN, ND, SD, MT); Uniform Northern Winter Wheat FHB Screening Nursery (NY, MI, OH, IN, IL, MO, KY); Uniform Southern Soft Red Winter Wheat FHB Screening Nursery (NC, MD, VA, AR, GA, LA). VDHR research will be commodity-based in the case of barley, durum and hard winter wheat coordinated projects.

Each Uniform nursery will be coordinated by a regional committee. Nurseries will be conducted in collaboration with a pathologist wherever possible and a subset of promising entries may be grown at multiple locations in Integrated Management Trials. The nurseries will also be evaluated for milling and baking quality, and haplotyped at the USDA regional genotyping labs. The most promising lines may be entered in the nurseries for a second year of testing at the lines originator’s request. Collaborators will submit candidate parents for crossing, and prebreeding populations derived from these crosses/populations will be made available to all collaborators. Mapping of new resistance sources will be accomplished through joint phenotyping of populations. All collaborators must screen varieties planted commercially (>5% of wheat acreage) in their state for FHB resistance and provide this information to growers.

FY14-15 Research Priorities derived from Action Plan Goals:

1. Increase acreage planted with varieties with improved FHB resistance to reduce DON in the US grain supply.
2. Increase efficiency of coordinated project breeding programs to develop and release FHB resistant varieties.
3. Develop new breeding technologies and germplasm to further enhance short term and long term improvement of FHB resistance and to efficiently introgress effective resistance genes into breeding germplasm.
BARLEY COORDINATED PROJECT (BAR-CP)

Project Description:

Minimizing the impact of Fusarium head blight (FHB) on barley production in the U. S. requires a multi-dimensional, yet focused and coordinated research effort. The Barley Coordinated Project (CP) seeks to combine existing lines of productive research with new avenues of investigation to develop a set of tools and disease management strategies that will minimize disease risk to producers and end-users of barley (Figure 1). This toolbox will consist of: 1) varieties with enhanced levels of resistance to FHB, lower levels of deoxynivalenol (DON), superior agronomic performance, and good end-use quality; 2) chemical formulations, application procedures, and a disease forecasting model, that maximize fungicide efficacy; 3) residue management strategies that reduce the potential of pathogen inoculum to contribute to disease epidemics; and 4) a set of best management practices that incorporate our current understanding of the tools available to combat this disease.

FY14-15 Research Priorities derived from Action Plan Goals:

The Barley CP is organized around four of the Research Areas (RA) outlined in the USWBSI Action Plan. A set of 10 objectives are established within these four RAs.

I Variety Development and Host Resistance (VDHR)
   Objective 1. Screen available Hordeum germplasm for novel sources of resistance.
   Objective 3. Validate and fine map FHB resistance QTL.
   Objective 4. Develop new barley varieties with enhanced resistance to FHB and lower DON.

II. Gene Discovery and Engineering Resistance (GDER)
   Objective 5. Identify barley genes differentially regulated in the barley-Fusarium interaction.
   Objective 6. Evaluate promising transgenes in adapted genetic backgrounds in regional nurseries.

III. Pathogen Biology and Genetics (PBG)
   Objective 7. Investigate host genotype x pathogen interaction for infection, spread, disease development, and accumulation of DON.

IV. FHB Management (MGMT)
   Objective 8. Elucidate the epidemiology of colonization and survival of Fusarium graminearum on host tissue, disease development, and toxin accumulation.
   Objective 9. Develop and evaluate chemical/biological management strategies that reduce FHB and/or DON in barley.
   Objective 10. Develop and promote best management strategies through integrated disease management.
**DURUM COORDINATED PROJECT (DUR-CP)**

**Project Description:**

Fusarium head blight (FHB) caused by the fungus *Fusarium graminearum* Schwabe [telomorph: *Gibberella zeae* (Schwein.) Petch.] has been seriously attacking durum wheat (*Triticum turgidum* L. var. *durum*) in North Dakota and the surrounding states. There is continuous decline in harvested durum acreage and production in the durum producing area in the United States because of FHB. Fungicides may reduce the disease but the most environmentally safe and economical way to control the disease is with genetic resistance. A durum Coordinated Project (CP) has been created under the direction of the USWBSI to accomplish the initiative action plans. The CP’s main objective is to develop FHB resistant durum wheat germplasm (lines/cultivars) with low DON levels, good agronomic traits, and good quality traits that will serve the producers, the domestic pasta industry, and the international export market. Reducing the impact of FHB requires a multidisciplinary effort and therefore the CP includes plant breeders, pathologists, geneticists, and researchers working in the area of disease management. The CP also includes stakeholders such as millers and pasta manufactures.

**FY14-15 Research Priorities derived from Action Plan Goals for VDHR:**

2. Identify, map, and validate FHB resistance QTL in the newly identified sources of resistance and develop user-friendly molecular markers to assist selection in durum breeding and germplasm development.
3. Incorporate FHB resistance QTL from tetraploid and hexaploid wheat accessions into adapted durum backgrounds and develop elite durum germplasm with the assistance of molecular markers in selection.
4. Develop durum varieties with enhanced level of FHB resistance and reduced DON accumulation.
5. Investigate host genotype x pathogen chemotype/genotype interaction for FHB and DON.
6. Evaluate chemical management strategies that reduce FHB and/or DON in durum.
7. Develop and promote best management strategies through integrated disease management.
HARD WINTER WHEAT COORDINATED PROJECT (HWW-CP)

Project Description:

The HWW-CP is an efficient coordinated project that will measure its success by reducing DON in the hard winter wheat grain supply to the food grade level acceptable in the European Union (EU). This level is currently lower than the US standard. Because half of our grain is exported and the majority of it shipped to the EU, the risk is that it can be sourced from high scab areas within the HWW region (e.g. the Eastern Great Plains). As the popularity of whole grain products increases, our goal is to ensure that the DON concentration in these products is also below established thresholds. Based upon the timelines expected for success in reducing DON, the HWW-CP includes the scientific activities of plant breeders, pathologists, geneticists and supporting research programs. We coordinate with disease management efforts because we realize that in addition to improved varieties, improved management will optimize project success within expected timelines. HWW-CP germplasm and information are publicly available and made available to other participating researchers in other research areas of the USWBSI. The HWW-CP remains focused on reducing DON levels as quickly as possible and by using the most efficacious methods to do so. Membership in the HWW-CP includes; all researchers currently funded within the CP, individuals designated as representatives from other research areas of the USWBSI, all interested FHB researchers who may or may not be funded by the USWBSI, stakeholders representing members from groups that fund our research (e.g. the KS, NE, SD, and ND Wheat Commissions), and members of groups that are key to our industry and who non-monetarily support HWW-CP research. These are “independent” stakeholders, such as major mills and bakeries, private wheat breeders, and chemical company representatives.

FY14-15 Research Priorities derived from Action Plan Goals:

The HWW-CP is organized around two of the research areas – Variety Development and Host Resistance (VDHR) and FHB Management (MGMT) as outlined in the USWBSI Action Plan. Two major objectives and associated research activities have been established within this CP. In addition, the HWW-CP works closely with other USWBSI Research Areas (RAs) to support the stated goal of reducing DON levels specified by the EU. Specifically, the HWW-CP works most closely with the MGMT RA.

**Variety Development and Host Resistance (VDHR) and FHB Management (MGMT)**

**Objective 1.** Increase acreage planted to varieties exhibiting improved FHB resistance to reduce DON in the HWW grain supply.

*Associated Research Activities:*

- Increase efficiency of individual breeding programs to develop and release FHB resistant varieties.
- Develop new breeding technologies and germplasm to further enhance short-term and long-term improvement of FHB resistance and to efficiently introgress effective resistance genes into breeding germplasm.
- Test and evaluate regional germplasm to include breeding lines from public and private breeding programs and to include irrigated field nurseries representative of all FHB environments throughout the region.

**Objective 2.** Evaluate practices enhancing varietal resistance and disseminate information that in association with resistant varieties, leads to reduced DON in the HWW grain supply.
Associated Research Activities:

- Characterize genotype x fungicide treatment responses for enhancing FHB resistance and the reduction of DON.
- Develop a full understanding of specific environmental and biological factors influencing FHB infection and toxin accumulation.
- Enhance communication and end-user education/outreach relating to resistant varieties and effective management practices.
SECTION 1:

COMMODITY- AND VDHR-BASED COORDINATED PROJECTS - PROPOSED RESEARCH PROJECTS
INTRODUCTION

Does my proposed research belong in a Commodity- or VDHR-based Coordinated Project?

Yes, if the primary focus of your proposed research involves the following:

<table>
<thead>
<tr>
<th>Commodity-Based Coordinated Projects: (includes proposed research in all research areas that focus on this commodity)</th>
<th>Barley (BAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity-Based Coordinated Projects: (includes proposed VDHR research on Durum or Hard Winter Wheat)</td>
<td>Durum (DUR)</td>
</tr>
<tr>
<td></td>
<td>Hard Winter Wheat (HWW)</td>
</tr>
<tr>
<td>VDHR Uniform Nursery Coordinated Projects: (all proposed VDHR research not submitted to one of the Commodity-Based CPs must be submitted to one of the Uniform Nursery CPs)</td>
<td>Spring Wheat Region - States included in this CP: MN, ND, SD, MT</td>
</tr>
<tr>
<td></td>
<td>Northern Soft Winter Wheat - - States included in this CP: NY, MI, OH, IN, IL, MO, KY</td>
</tr>
<tr>
<td></td>
<td>Southern Soft Red Winter Wheat- -States included in this CP: NC, MD, VA, AR, GA, LA</td>
</tr>
</tbody>
</table>

Overview of Submission Process for Coordinated Project Pre-Proposals:

Whether you are proposing research to the Barley, Durum, Hard Winter Wheat CPs or one of the VDHR - Regional Uniform Nurseries CPs, below are the main components (in order of completion) of the submission process:

1. PIs submit a **Letter of Intent (LOI)** to the Chair of the CPC (see Table 1, page 6), with a copy of the LOI sent to the NFO. **Deadline: July 10**

2. CP committees notify all PIs who submitted Letters of Intent to their CP whether their proposed research has been accepted into the CP’s FY14 Pre-Proposal. **Deadline: August 9**

3. PIs and Co-PIs complete the Pre-Registration Process for uploading their CV/Publication Lists and Current and Pending Support Form to the EPS System. **Deadline: August 30**

4. PIs submit (via email) electronic version of the **Proposed Research Project** to the Chair of the CPC and the NFO. **Deadline: September 10**

5. PIs upload their CV/Publication Lists, and Current and Pending Form (PDF format) to the EPS System. **Deadline: September 10**

6. CPC Chairs submits electronic version of CPC’s completed forms and updated PRPs to the NFO (deadline indicates date NFO must receive the pre-proposal). **Deadline: October 11**
INSTRUCTIONS

1. PRE-SUBMISSION - LETTER OF INTENT (LOI)

If you plan to participate in one of the Coordinated Projects, you must submit a Letter of Intent to the Chair of the appropriate CP Committee (see below) by July 10th. The LOI must adhere to the following:

- One page (single spaced) maximum;
- Name of PI and co-PIs, and the proposed title;
- Indicate if this is a continuing or new project;
- Identify the research area (MGMT, FSTU, GDER, PBG or VDHR) in which your project fits (applicable to commodity-based CPs only).
- Synopsis that describes the following:
  - the research objective which your project fits;
  - the problem being addressed, approaches for solving the problem and the rationale for using these approaches; and
  - the outputs of the project and how those outputs will be used by researchers, extension educators, or stakeholders to accomplish the overall goal of the USWBSI.

**NOTE:** If it does not fit one of the CP’s stated objectives (refer to CPs’ or VDHR Program Descriptions and Research Priorities/Objectives - http://scabusa.org/pdfs/FY14-rfp_pd-rp.pdf), then suggest a new objective; and

- Include a statement that demonstrates that the PI/co-PI’s are capable of carrying out the proposed research based on past research productivity and expertise in the relevant field(s) of research.

**Deadline:** Both the Chair of the relevant Coordinated Project Committee and the NFO must receive all Letters of Intent by July 10, 2013. LOIs may be submitted electronically via e-mail.

**Mailing Information for CPC Chairs:**

<table>
<thead>
<tr>
<th>COMMODITY-BASED COORDINATED PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barley</strong></td>
</tr>
<tr>
<td>Robert Brueggeman</td>
</tr>
<tr>
<td>North Dakota State University</td>
</tr>
<tr>
<td>Dept. of Plant Pathology</td>
</tr>
<tr>
<td>NDSU Dept # 7660</td>
</tr>
<tr>
<td>PO Box 6050</td>
</tr>
<tr>
<td>Fargo, ND 58108-6050</td>
</tr>
<tr>
<td>PH: (701) 231-7078</td>
</tr>
<tr>
<td>Email: <a href="mailto:Robert.Brueggeman@ndsu.edu">Robert.Brueggeman@ndsu.edu</a></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Durum</strong></td>
</tr>
<tr>
<td>Steven Xu</td>
</tr>
<tr>
<td>USDA-ARS</td>
</tr>
<tr>
<td>Northern Crop Science Laboratory</td>
</tr>
<tr>
<td>1307 18th Street North</td>
</tr>
<tr>
<td>Fargo, ND 58105-5677</td>
</tr>
<tr>
<td>PH: (701) 239-1327</td>
</tr>
<tr>
<td>Email: <a href="mailto:Steven.Xu@ARS.USDA.GOV">Steven.Xu@ARS.USDA.GOV</a></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Hard Winter Wheat</strong></td>
</tr>
<tr>
<td>Bill Berzonsky</td>
</tr>
<tr>
<td>Bayer CropScience</td>
</tr>
<tr>
<td>North American Wheat Breeding</td>
</tr>
<tr>
<td>3101 NW 12th St.</td>
</tr>
<tr>
<td>Lincoln, NE 68521</td>
</tr>
<tr>
<td>PH: (402) 261-6683 ext. 104</td>
</tr>
<tr>
<td>Email: <a href="mailto:bill.berzonsky@bayer.com">bill.berzonsky@bayer.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VDHR – REGIONAL UNIFORM NURSERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spring Wheat Parents</strong></td>
</tr>
<tr>
<td>Jochum Wiersma</td>
</tr>
<tr>
<td>Northwest Experiment Station</td>
</tr>
<tr>
<td>2900 University Ave.</td>
</tr>
<tr>
<td>University of Minnesota</td>
</tr>
<tr>
<td>Crookston, MN 56716</td>
</tr>
<tr>
<td>PH: (218) 281-8629</td>
</tr>
<tr>
<td>Email: <a href="mailto:wiers002@umn.edu">wiers002@umn.edu</a></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Northern Soft Winter Wheat</strong></td>
</tr>
<tr>
<td>Clay Sneller</td>
</tr>
<tr>
<td>Dept. of Hort. and Crop Science</td>
</tr>
<tr>
<td>1680 Madison Ave.</td>
</tr>
<tr>
<td>Ohio State University/OARDC</td>
</tr>
<tr>
<td>Wooster, OH 44691</td>
</tr>
<tr>
<td>PH: (330) 749-8942</td>
</tr>
<tr>
<td>Email: <a href="mailto:sneller.5@osu.edu">sneller.5@osu.edu</a></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Southern Soft Winter Wheat</strong></td>
</tr>
<tr>
<td>Paul Murphy</td>
</tr>
<tr>
<td>Department of Crop Science</td>
</tr>
<tr>
<td>840 Method Road, Unit 3</td>
</tr>
<tr>
<td>Box 7629</td>
</tr>
<tr>
<td>North Carolina State University</td>
</tr>
<tr>
<td>Raleigh, NC 27695</td>
</tr>
<tr>
<td>PH: (919) 513-0000</td>
</tr>
<tr>
<td>Email: <a href="mailto:Paul_Murphy@ncsu.edu">Paul_Murphy@ncsu.edu</a></td>
</tr>
</tbody>
</table>
2. CP COMMITTEES’ RESPONSE TO RECEIVED LETTERS OF INTENT

The CP Committee Chair will notify all PIs who submitted Letters of Intent whether their proposed research has been accepted into the CP FY14 Pre-Proposal.

**Deadline:** August 9, 2013

**Note:** If your proposed research was rejected by one of the CPs, you may submit an individual project pre-proposal for consideration following the instructions for Category 3 (page 30).

3. PRE-REGISTRATION PROCESS FOR EPS SYSTEM

All PIs submitting a proposed research project to one of the Coordinated Projects must complete the Pre-Registration Process so that they may upload their CV/Publication Lists and Current and Pending Support forms to the EPS System. However, PIs should wait to complete the Pre-Registration Process until after they have received a response from the CP Committee concerning their submitted Letter of Intent (LOI) – see item 2 above.

1) **User Registration Form:** You will only complete this step if you do not already have a User ID or previously used the EPS System. The submission of this form will set up the PI’s user account within the EPS System. Form may be accessed at [http://scabusa.org/modules/profile/register.php](http://scabusa.org/modules/profile/register.php). You may have already completed this step if you have created a user ID for the Scab Website (i.e. Discussion Boards, Photo Library, Scab Blog, etc.). If you are not sure whether you already have a user ID for the Scab Website, please contact the NFO at scabusa@scabusa.org.

2) **Proposed Research Form:** Information submitted on this form pertains to the proposed research being submitted. After logging in on the USWBSI’s home page, click on the link below and then follow the instructions included on the form. Form may be accessed at [http://www.scabusa.org/pre_reg.php](http://www.scabusa.org/pre_reg.php).

Following successful completion of the Pre-Proposal Registration process (both steps), you will receive a confirmation e-mail containing a ‘Help Document’ that will aid you in navigating the EPS System.

**NOTE:** You do not have to complete the ‘Pre-Registration Process’ before you begin working on your Pre-proposal.

**Deadline:** August 30, 2013

4. PROPOSED RESEARCH PROJECT (PRP)

**Plan of Work:**

A Plan of Work must be submitted with your proposed project. This plan must describe how your work specifically fits into the overall Coordinated Project and identify any linkages to other work plans that are part of the Coordinated Project. This document should not exceed four (4) pages in length and begins with the ‘Plan of Work’ Form (downloaded at [http://scabusa.org/research_rfp14](http://scabusa.org/research_rfp14)) as page 1 (text for Plan of Work should begin on page 1 below form fields). The Plan of Work should describe in clear, concrete terms, the substance of your proposed research including experimental design, materials and methods, and timeline for completing research. The timeline for the Plan of Work should be two years.

**Format:** The Plan of Work should be formatted using Times New Roman (Normal type except headings), 12 point or higher with one-inch margins. **NOTE:** Bold formatting should only be used for section headings or used minimally to emphasize importance or significance. **Conformance to the format requirements will be strictly enforced.**
Budget Requests (Year 1 and 2):

Please complete the ‘Proposed Research Project Budget Justification Form’ by following the instructions on the form. PI will also complete a budget using either ‘Proposed Research Project Budget Form’ or the ‘FY14 Multi-PI Budget Worksheet’ (MS Excel file). If the ‘Multi-PI Budget Worksheet’ is used, please remove the PRP budget form from the ‘Plan of Work’ forms prior to submission. Your proposed research project should include a ‘Year 1’ and ‘Year 2’ budget request.

NOTE: In the majority of cases, total request for Year 1 and Year 2 should be the same amount.

Multi-PI Budget Worksheet: The ‘Multi-PI Budget Worksheet’ was developed for use by PIs whose proposed research includes components at multiple institutions. In such cases, if a proposed research project is recommended for funding, the awards would go directly to the individual institutions from USDA-ARS. This form should be used in place of the Single Budget Page, as it provides for both the individual budgets as well as the total requested amount for the proposed research. However, when using this form, separate Budget Justification Forms must be included for each individual budget request. This form can be downloaded from the Scab Website at http://scabusa.org/research_rfp14 under ‘SPECIAL FORMS’. The file contains detailed instructions on completing the budget worksheet which contains calculated fields.

Instructions for submitting Multi-PI Budget Worksheet with PRP: You must convert the Excel budget worksheet to a PDF file and either merge it with the other items listed under ‘Proposed Research Project’ into a single PDF, or you may send it to the CPC Chair and the NFO as a separate PDF file.

Tuition Remission: Tuition remission is permitted under USDA-ARS extramural agreements with any type of recipient organization (i.e. universities). If tuition remission is budgeted as a direct cost, it should be included in the "Other Direct Costs" category of the Budget Page (Section H).

Indirect Cost (IDC) Rate Policy: The USWBSI’s review process focuses on the competitiveness of total project costs (direct and indirect). Because Fusarium head blight is such a severe problem for the U.S. wheat and barley industries, the USWBSI has set the rate limit for indirect costs at 5%.

NOTE: There are two versions of the Proposed Research Project forms: 1) Commodity-based; and 2) VDHR – Uniform Nurseries. Make sure you download the appropriate version.

Breeder Form

If you are submitting a proposed research project that focuses on VDHR, you must also complete a Breeder Form. This form can be downloaded from the RFP website under ‘SPECIAL FORMS’.

Instructions for submitting Breeder Form with PRP: You must convert the Breeder Form to a PDF file and either merge it with the other items listed under ‘Proposed Research Project’ into a single PDF, or you may send it to the CPC Chair and the NFO as a separate PDF file.

Submission Deadline

Both the Chair of the relevant Coordinated Project Committee (CPC) and the NFO must receive the electronic version of the Proposed Research Project (PRP) by September 10, 2013.
5. SUPPORTING DOCUMENTS - ITEMS TO BE UPLOADED TO EPS SYSTEM

Curriculum Vitae and Publication List (Maximum four pages per scientist)

To assist peer reviewers in assessing the competence and experience of the proposed project staff, all personnel who will be involved in the proposed project must be identified clearly. The items listed below should be included for all personnel (PI, Co-Investigators, and secondary scientists (i.e. post-docs, graduate students)) who are expected to work on the project in a significant fashion (e.g. expectation of co-authorship on ensuing publications), whether or not funds are sought for this support:

- **Curriculum Vitae (C.V.).** The C.V. should be limited to a presentation of academic and research credentials, e.g., educational, employment and professional history, and honors and awards. Unless pertinent to the project, do not include meetings attended, seminars given, or personal data such as birth date, marital status, or community activities.

- **Publication List.** A chronological list of all publications in refereed journals during the past five years, including those in press, should be provided for each professional project member for whom a Curriculum Vitae is provided. Non-refereed technical publications that have relevance to the proposed project may be included.

The C.V. and Publication List combined must not exceed four pages per scientist. C.V. and Publication Lists for collaborators or sub-contractors are not required.

**Submission Instructions:** PIs and Co-PIs are responsible for uploading their own CV/Pubs to the EPS System. CV/Pubs for all secondary scientists should be included in the PI’s file. The CV/Pubs will only need to be uploaded one time whether or not the investigator is connected to multiple pre-proposals. File must be uploaded to the EPS System by **September 10, 2013**.

Current and Pending Support (CPS)

*CPS form can be downloaded from the RFP website at [http://scabusa.org/research_rfp14](http://scabusa.org/research_rfp14).*

All PIs submitting a proposed research project (PRP) must also submit completed Current and Pending Support Forms listing other current public or private support to which key personnel identified in the PRP have committed portions of their time, whether or not salary support for person(s) involved is included in the budget. Analogous information must be provided for any pending proposals that are being considered by, or that will be submitted in the near future to, other possible sponsors, including other USDA Programs or agencies, and the USWBSI. Concurrent submission of identical or similar proposals to the other possible sponsors will not prejudice the review or evaluation by the USWBSI for this purpose. However, a PRP that duplicates or overlaps substantially with a proposal already reviewed and funded (or to be funded) by another organization or agency will not be recommended under this program. The third column (‘Requested/Award Amount’) on the ‘Current and Pending Support Page’ has been divided into two sub-columns: Total $ Amount and PI $ Allocation. For each grant/proposal listed, include both the total (‘Total $ Amount’) and the amount you have or may receive (‘PI $ Allocation’).

**Submission Instructions:** PIs are responsible for uploading their own Current and Pending Support Form to the EPS System. The CPS Form will only need to be uploaded one time whether or not the investigator is connected to multiple pre-proposals. File (PDF format) must be uploaded to the EPS System by **September 10, 2013**.
IMPORTANT DEADLINES

Pre-Submission

➢ PIs submit Letters of Intent (LOI)
   Submission Deadline (received by Chair of CP Committee and NFO): July 10, 2013

➢ CPCs respond to PIs regarding acceptance of LOIs into CP August 9, 2013

Pre-Registration

➢ User Registration Form: The submission of this form will set up the PI’s user account within the EPS System.

➢ Proposed Research Form: Information submitted on this form pertains to the proposed research being submitted and will be used by the NFO to configure the EPS System for each PI. **NOTE:** This step should not be completed until you have received a response from the CPC to your Letter of Intent.

Registration Deadline: August 30, 2013

Final Submission of PRP

**PI Check-list of Required Items for Proposed Research Projects Submitted to Coordinated Project Committee**

➢ Plan of Work (should not exceed three pages; starts with ‘Plan of Work’ Form as page 1)
➢ Proposed Research Project Budget Justification Forms (complete all relevant sections)
➢ Proposed Research Project Budget Forms (add e-signature and date)

Submission Deadline - E-version received by CPC Chair and the NFO): September 10, 2013

Submission of Supporting Documents

**Check-list of Required Items to be uploaded to EPS System**

➢ Curriculum Vitae and Publication List
➢ Current and Pending Support Form

Submission Deadline (uploaded to EPS System) September 10, 2013
SECTION 2:

FHB MANAGEMENT
COORDINATED PROJECTS - PROPOSED RESEARCH PROJECTS
Category 2: FHB Management Coordinated Projects

INTRODUCTION

Does my proposed research belong in an FHB Management Coordinated Project (CP)?

Yes, if the primary focus of your proposed research involves the following:

<table>
<thead>
<tr>
<th>Integrated Management Studies (IM)</th>
<th>Integrated management strategies for FHB and DON including tillage practices, crop sequences, and other cultural practices targeting <em>Fusarium</em>-infested residues.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uniform Fungicide and Biocontrol Trials (F/BC)</td>
<td>Uniform testing of fungicides, biological control agents, and application technologies for chemical and biological agents.</td>
</tr>
</tbody>
</table>

Overview of Submission Process for MGMT Coordinated Project Pre-Proposals:

If you are submitting proposed research to the Uniform Fungicide/Biocontrol Trials or the Integrated Management Studies Coordinated Projects, below are the main components (in order of completion) of the submission process:

1. PIs submit a **Letter of Intent (LOI)** to the Contact of the MGMT-CP (see page 24), with a copy of the LOI sent to the NFO.  
   **Deadline:** July 10

2. CP committees notify all PIs who submitted Letters of Intent to their CP whether their proposed research has been accepted into the CP’s FY14 Pre-Proposal.  
   **Deadline:** August 9

3. PIs (and Co-PIs) complete the Pre-Registration Process for uploading their CV/Publication Lists and Current and Pending Support Form to the EPS System.  
   **Deadline:** August 30

4. PIs submit electronic version (PDF format) of the ‘**Proposed Research Project**’ to the Coordinator of the MGMT-CP and the NFO.  
   **Deadline:** September 10

5. PIs upload their CV/Publications Lists, and Current and Pending Support (CPS) Form (PDF format) to the EPS System.  
   **Deadline:** September 10

6. NFO receives MGMT-CP Pre-proposals from CP Coordinators.  
   **Deadline:** October 11
INSTRUCTIONS

PRE-SUBMISSION - LETTER OF INTENT (LOI)

If you plan to participate in one of the FHB Management Coordinated Projects, you must submit a Letter of Intent to the CP leader of the appropriate Coordinated Project (see table below) by July 5th. The LOI, which may be in the form of an e-mail, must include the following:

Names of PI and co-PI(s), a proposed title, and a synopsis that describes the following:

- Reasons proposed component is needed;
- Goals in the USWBSI’s action plan addressed by this proposed research;
- Research needs in the USWBSI’s action plan addressed by this research; and
- Statement that demonstrates that the PI/co-PI(s) are capable of carrying out the proposed research based on past research productivity and expertise in the relevant field(s) of research

Deadline: Both the Coordinator of the MGMT Coordinated Project and the NFO must receive the Letter of Intent (may be in the form of an e-mail) by July 10, 2013.

Mailing Information for MGMT-CP Coordinators and NFO:

<table>
<thead>
<tr>
<th>Uniform Fungicide/Biocontrol Trials (UT)</th>
<th>Integrated Management Studies (IM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madeleine Smith</td>
<td>Pierce Paul</td>
</tr>
<tr>
<td>NW Research and Outreach Center</td>
<td>1680 Madison Ave.</td>
</tr>
<tr>
<td>2900 University Ave</td>
<td>Dept. of Plant Pathology</td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>Ohio State University</td>
</tr>
<tr>
<td>Crookston, MN 56716</td>
<td>Wooster, OH 44691</td>
</tr>
<tr>
<td>Email: <a href="mailto:smit7273@crk.umn.edu">smit7273@crk.umn.edu</a></td>
<td>E-mail: <a href="mailto:paul.661@osu.edu">paul.661@osu.edu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Networking &amp; Facilitation Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTN: Sue Canty</td>
</tr>
<tr>
<td>USWBSI-NFO</td>
</tr>
<tr>
<td>380 Plant &amp; Soil Sciences Bldg.</td>
</tr>
<tr>
<td>East Lansing, MI 48824-1325</td>
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<td>E-mail: <a href="mailto:scabusa@scabusa.org">scabusa@scabusa.org</a></td>
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2. MGMT-CP COORDINATORS’ RESPONSE TO RECEIVED LETTERS OF INTENT

The CP Coordinator will notify all PIs who submitted Letters of Intent whether their proposed research has been accepted into the FY14 Coordinated Project Pre-Proposal.

Deadline: August 9, 2013

Note: If your proposed research was rejected by one of the MGMT-CPs, you may submit an individual project pre-proposal for consideration following the instructions for Category 3 (page 30).

3. PRE-REGISTRATION PROCESS FOR EPS SYSTEM

All PIs submitting a proposed research project to one of the Coordinated Projects must complete the Pre-Registration Process so that they may upload their CV/Publication Lists and Current and Pending Support forms to the EPS System. However, PIs should wait to complete the Pre-
Registration Process until after they have received a response from the CP Committee concerning their submitted Letter of Intent (LOI) – refer to item 2 above.

1) User Registration Form: You will only complete this step if you do not already have a User ID or previously used the EPS System. The submission of this form will set up the PI’s user account within the EPS System. Form may be accessed at http://scabusa.org/modules/profile/register.php. You may have already completed this step if you have created a user ID for the Scab Website (i.e. Discussion Boards, Photo Library, Scab Blog, etc.). If you are not sure whether you already have a user ID for the Scab Website, please contact the NFO at scabusa@scabusa.org.

2) Proposed Research Form: Information submitted on this form pertains to the proposed research being submitted. After logging in on the USWBSI’s home page, click on the link below and then follow the instructions included on the form. Form may be accessed at http://www.scabusa.org/pre_reg.php.

Following successful completion of the Pre-Proposal Registration process (both steps), you will receive a confirmation e-mail containing a ‘Help Document’ that will aid you in navigating the EPS System. NOTE: You do not have to complete the ‘Pre-Registration Process’ before you begin working on your Pre-proposal.

Deadline: August 30, 2013

4. PROPOSED RESEARCH PROJECT (PRP)

Plan of Work:

A Plan of Work must be submitted with your proposed research project. This plan must describe the details of your proposed research including how the proposed research differs from the required standard protocols that have been established for the coordinated project to which you are submitting your Proposed Research Project. This document should not exceed four (4) pages in length (starts with ‘Plan of Work’ Form as page 1) and should describe in clear, concrete terms the substance of your proposed research. The timeline for the Plan of Work should be two years. The Coordinated Project Committee leader will send the standard protocols to all PIs whose proposed research was accepted into the CP by August 14.

Format: The Plan of Work should be formatted using Times New Roman (Normal type except headings), 12 point or higher with one-inch margins. NOTE: Bold formatting should only be used for section headings or used minimally to emphasize importance or significance. Conformance to the format requirements will be strictly enforced.

Budget Requests (Year 1 and 2):

Please complete the ‘Proposed Research Project Budget Justification Form’ by following the instructions on the form. PI will also complete a budget using either ‘Proposed Research Project Budget Form’. Your proposed research project should include a ‘Year 1’ and ‘Year 2’ budget request. NOTE: In the majority of cases, total request for Year 1 and Year 2 should be the same amount.

Tuition Remission: Tuition remission is permitted under USDA-ARS extramural agreements with any type of recipient organization (i.e. universities). If tuition remission is budgeted as a direct cost, it should be included in the "Other Direct Costs" category of the Budget Page (Section H).
USWBSI FY14 RFP Application – Section 2

Policy on Indirect Cost (IDC) Rate: The USWBSI’s review process focuses on the competitiveness of total project costs (direct and indirect). Because Fusarium head blight is such a severe problem for the U.S. wheat and barley industries, the USWBSI has set the rate limit for indirect costs at 5%.

Submission Deadline

Both the Coordinator of the relevant Coordinated Project Committee (CPC) and the NFO must receive the electronic version (via email) of the Proposed Research Project (PRP) by September 10, 2013.

5. Curriculum Vitae and Publication List (CV/Pubs)
(Maximum four pages for CV with Publication List per Scientist)

To assist peer reviewers in assessing the competence and experience of the proposed project staff, all personnel who will be involved in the proposed project must be identified clearly. The items listed below should be included for all personnel (PI, Co-Investigators, and secondary scientists (i.e. post-docs, graduate students)) who are expected to work on the project in a significant fashion (e.g. expectation of co-authorship on ensuing publications), whether or not funds are sought for this support:

- **Curriculum Vitae (C.V.).** The C.V. should be limited to a presentation of academic and research credentials, e.g., educational, employment and professional history, and honors and awards. Unless pertinent to the project, do not include meetings attended, seminars given, or personal data such as birth date, marital status, or community activities.

- **Publication List.** A chronological list of all publications in refereed journals during the past five years, including those in press, should be provided for each professional project member for whom a Curriculum Vitae is provided. Non-refereed technical publications that have relevance to the proposed project may be included.

The C.V. and Publication List combined must not exceed four pages per scientist. C.V. and Publication Lists for collaborators or sub-contractors are not required.

Submission Instructions: PIs and Co-PIs are responsible for uploading their own CV/Pubs to the EPS System. CV/Pubs for all secondary scientists should be included in the PI’s file. The CV/Pubs will only need to be uploaded one time whether or not the investigator is connected to multiple pre-proposals. File must be uploaded to the EPS System by September 10, 2013.

6. Current and Pending Support (CPS) Form

*CPS form can be downloaded from RFP website at [http://scabusa.org/research_rfp14](http://scabusa.org/research_rfp14).*

All project pre-proposals must contain completed Current and Pending Support Forms for PI and all Co-PIs listing other current public or private support to which key personnel identified in the pre-proposal have committed portions of their time, whether or not salary support for person(s) involved is included in the budget. Analogous information must be provided for any pending proposals that are being considered by, or that will be submitted in the near future to, other possible sponsors, including other USDA Programs or agencies, and the USWBSI. Concurrent submission of identical or similar proposals to the other possible sponsors will not prejudice pre-proposal review or evaluation by the USWBSI for this purpose. However, a project pre-proposal that
duplicates or overlaps substantially with a proposal already reviewed and funded (or to be funded) by another organization or agency will not be recommended under this program. The third column (‘Requested/Award Amount’) on the ‘Current and Pending Support Page’ has been divided into two sub-columns: Total $ Amount and PI $ Allocation. For each grant/proposal listed, include both the total (‘Total $ Amount’) and the amount you have or may receive (‘PI $ Allocation’).

**Submission Instructions:** PIs and Co-PIs are responsible for uploading their own Current and Pending Support Form to the EPS System. The CPS Form will only need to be uploaded one time whether or not the investigator is connected to multiple pre-proposals. File must be uploaded to the EPS System by September 10, 2013.
IMPORTANT DEADLINES

Pre-Submission

- PIs submit Letters of Intent (LOI)  
  **July 10, 2013**
- CP Coordinators respond to PIs regarding acceptance of LOIs into CP.  
  **August 9, 2013**

Pre-Registration

- **User Registration Form**: The submission of this form will set up the PI’s user account within the EPS System.
- **Proposed Research Form**: Information submitted on this form pertains to the proposed research being submitted and will be used by the NFO to configure the EPS System for each PI.  
  **PLEASE NOTE**: This step should NOT be completed until you have received a response from the CP Coordinator to your Letter of Intent.

**Registration Deadline:**  
**August 30, 2013**

Final Submission of PRP

**PI Check-list of Required Items for Proposed Research Projects**  
Submitted to the Coordinator of MGMT-CP

- Plan of Work (should not exceed three pages; starts with ‘Plan of Work’ Form as page 1)
- Proposed Research Project Budget Justification Form (complete all relevant sections)

**Submission Deadline - E-version received by CP Coordinator and the NFO:**  
**September 10, 2013**

Submission of Supporting Documents

**Check-list of Required Items to be uploaded to EPS System**

- Curriculum Vitae and Publication List
- Current and Pending Support Form

**Submission Deadline (uploaded to EPS System):**  
**September 10, 2013**
SECTION 3:

RESEARCH AREA
INDIVIDUAL PROJECT
PRE-PROPOSALS
Category 3 - Individual Research Area
Project Pre-Proposals

INTRODUCTION

If your research is in one of the following research areas, and if the primary focus is not on Uniform Fungicide/Biological Control Trials or Integrated Management Studies, you should complete your pre-proposals using the instructions and forms provided in this section of the FY14 RFP.

- FHB Management (MGMT)
- Food Safety, Toxicology, and Utilization of Mycotoxin-contaminated Grain (FSTU)
- Gene Discovery and Engineering Resistance (GDER)
- Pathogen Biology and Genetics (PBG)

OVERVIEW OF THE ELECTRONIC SUBMISSION PROCESS

Individual Pre-proposals will be submitted using the USWBSI’s Electronic Pre-Proposal Submission (EPS) System. Pre-proposal must be organized and saved as three (four if submitting a multi-PI budget) separate Adobe PDF files for the purpose of uploading to the EPS System. Below are the steps you will take to complete and submit your individual project pre-proposal:

a. **Pre-Registration Process** - All PIs must complete the Pre-Registration Process in order to submit their pre-proposal via the EPS System.
   
   i. **User Registration Form**: You will only complete this step if you do not already have a User ID or previously used the EPS System. The submission of this form will set up the PI’s user account within the EPS System. Form may be accessed at [http://scabusa.org/modules/profile/register.php](http://scabusa.org/modules/profile/register.php). You may have already completed this step if you have created a user ID for the Scab Website (i.e. Discussion Boards, Photo Library, Scab Blog, etc.). If you are not sure whether you already have a user ID for the Scab Website, please contact the NFO at scabusa@scabusa.org.
   
   ii. **Proposed Research Form**: Information submitted on this form pertains to the proposed research being submitted. After logging in on the USWBSI’s home page, click on the link below and then follow the instructions included on the form. Form may be accessed at [http://www.scabusa.org/pre_reg.php](http://www.scabusa.org/pre_reg.php).

Following successful completion of the Pre-Proposal Registration process (both steps), you will receive a confirmation e-mail containing a ‘Help Document’ that will aid you in navigating the EPS System. **NOTE**: You do not have to complete the ‘Pre-Registration Process’ before you begin working on your Pre-proposal.

**Deadline: August 30, 2013**

a. You will complete your pre-proposal by following the instructions provided in this RFP and using the forms which may be downloaded from the FY14 RFP website at: [http://www.scabusa.org/research_rfp14](http://www.scabusa.org/research_rfp14). Your final pre-proposal must be completed by creating three files organized as follows:
• **FILE 1 – Body of Pre-Proposal** – Contains the following:
  o Application for Funding Cover Page
  o Project Summary Form
  o Summary of Progress for Ongoing Related Project(s)
  o Project Description
  o References to Project Description
  o Facilities and Equipment
  o Collaborative Arrangements
  o Letters of Intent from Collaborators and Co-Investigators—*(may be in the form of e-mail messages copied and pasted into your pre-proposal document)*
  o Budget Justification Form
  o Budget Page *(Note: If you are using the ‘Multi-PI Budget’ which is in Excel format in place of the Single Budget Page, please refer to the instructions on page 34).*

• **FILE 2 – Curriculum Vitae and Publication List (CV/Pubs):** The PI and each Co-PI is responsible for uploading his/her own CV/Pubs file. CV/Pubs for secondary project personnel should be included in the PI’s file.

• **FILE 3 – Current and Pending Support (CPS) Form:** The PI and each Co-PI is responsible for uploading his/her own CPS form.

Log in to the EPS System using the information received after successful completion of the ‘Pre-Registration Process.’ Following the instructions in the ‘Help Document’ (included in e-mail from the Networking & Facilitation Office), proceed to upload the three separate files (Body of Pre-Proposal, Curriculum Vitae/Publication List, and Current and Pending Support Form). The files you upload must be in Adobe PDF format.

Because the USWBSI does not require signatures by the Authorized Organizational Representatives (AORs) on pre-proposals, institutional AOR’s will not be granted access to the EPS System.

**Important Dates and Deadlines for submission of Pre-Proposals via the EPS System:**

- July 15: Pre-registration begins (you will receive your access information on or within 48 business hours after August 1).
- August 5: EPS System Opens
- August 30: Pre-Registration Process ends.
- Sept. 17: Deadline for final submission of pre-proposals and supporting documents.

**INSTRUCTIONS**

**FILE 1: Body of Pre-Proposal**

**Application for Funding Cover Page**

The pre-proposal must contain a completed ‘Application for Funding Cover Page’, which will be the first page of the application. In completing this form, please note the following:

- **Title of Proposal (Block 6).** The title of the project pre-proposal must be brief *(80-character maximum)*, yet represent the major thrust of the project. Because this title will be used to provide information to those who may not be familiar with the proposed project, highly technical words or
phraseology should be avoided where possible. In addition, phrases such as “investigation of” or “research on” should not be used.

- **Principal Investigator/Co-Investigators (Block 10).** List the name of the proposing principal investigator in this block. All other participating scientists should be listed as co-investigators. The co-investigators should be limited to those required for major scientific collaboration.

- **Currently Funded Projects (Block 13).** List the titles of all individual research projects that are currently being funded in FY13 (approx. May 2013 – April 2014) in association with the USWBSI/ARS collaboration.

- **Research Area (Block 16).** Your Project Pre-Proposal should be constructed to address one or more of the Action Plan goals (http://scabusa.org/pdfs/uswbsi_action-plan_web.pdf). In Block 16, designate with an 'X' one Research Category whose description and priorities your project is designed to address. Research Area Program Descriptions and Research Priorities (PD-RP) can be accessed through the Initiative’s Web site at www.scabusa.org/research.html.

- **Signatures.** Signatures are not required for pre-proposals submitted via the Electronic Pre-Proposals Submission (EPS) System. However, a Letter of Intent (may be in the form of an e-mail) from all Co-Investigators must be included in the pre-proposal under the section titled “Collaborative or Sub Contractual Arrangements”.

### Project Summary Form

Each project pre-proposal must contain a completed Project Summary Page, which will be the second page of the project pre-proposal. The names and institutions of all of the principal and co-investigators should be listed on this form (if space for this information is insufficient, please enter “see attached” and provide the information on a separate sheet immediately following the Project Summary Page). The project summary itself must fit within the space indicated. The summary is not intended for the general reader; consequently, it may contain technical language relating to Fusarium head blight research. The project summary should be self-contained, include a specific description of the activity to be undertaken, and focus on the following:

- Overall project goal(s)
- Project Objectives (list in numbered format) and Expected Outcomes;
- Plans to accomplish project goal(s) within period of proposed work (**two years**); and
- Relevance of the project to the goals of the U.S. Wheat and Barley Scab Initiative with specific reference to the research priorities listed in the FY14 Program Descriptions and Research Priorities (PD-RP).

A concise, informative project summary is essential. Project Summaries are considered part of the pre-proposal and are therefore confidential.

### Summary of Progress for Ongoing Related Project(s) – Limit to a single page

The purpose of this section is to enable PI's to demonstrate that they have made (or are moving towards) effective use of funds for ongoing USWBSI-recommended projects related to the current pre-proposal. This includes projects which were funded this year (FY13). Include the following information for each relevant ongoing project:
Project Title;
- brief summary of activities (including non-data generating items such as hiring of personnel, equipment acquisition, etc.), any results and/or accomplishments made to date (include actual data documenting progress made since FY13 funding was awarded; and
- any information that will help reviewers understand how the current pre-proposal builds upon the ongoing project.

Project Description

The Project Description should provide a clear statement of the work to be undertaken and must include: research objectives for the period of the proposed work and expected significance; relation to longer-term goals of the PI's project; and relation to the present state of knowledge in the field, to work in progress by the PI under other support and to work in progress elsewhere.

The Project Description should outline the general plan of work, including the broad design of activities to be undertaken, and, where appropriate, provide a clear description of experimental methods and procedures, and plans for preservation, documentation, and sharing of data, samples, physical collections, curriculum materials and other related research and education products.

iii. Format: Brevity will assist reviewers and USWBSI/NFO staff/reviewers in dealing effectively with pre-proposals. Therefore, the written text of the Project Description must be five pages or less (single spaced or equivalent); ten pages or less in total including figures and tables. The Project Description should be formatted using Times New Roman (Normal type except headings and 12 point or higher) with one-inch margins. NOTE: Bold formatting should only be used for section headings or used minimally to emphasize importance or significance. Conformance to the format requirements will be strictly enforced.

iv. Content:

- **Title.** Same as Application for Funding Cover Page (80-Character Maximum).

- **Introduction.** A clear statement of the goal(s) and supporting objectives or research questions of the proposed project should be included. The most significant published work in the field under consideration, including the work of key project personnel on the current application, should be reviewed. The current status of research in this field of science should also be described including, but not limited to, any ongoing USWBSI-recommended work currently underway. Preliminary data pertinent to the proposed research may be included in this section. Present and discuss published literature that is directly related to, and supports, the proposed research (research objectives, materials and methods).

- **Rationale and Significance.** It is understood that head scab is a devastating disease. **Acknowledgment of this fact should require no more than one sentence.** Concisely present the rationale behind the proposed research; identify the gaps in the knowledge base that your pre-proposal is trying to fill. Relevance of the project to the goals of the U.S. Wheat and Barley Scab Initiative with specific reference to the priorities listed in the FY14 Program Descriptions and Research Priorities (PD-RP) should be clearly stated. If applicable, please indicate if the research proposed here could lead to successful acquisition of grant funds from other agencies.

- **Research Materials and Methods.** Specifically, this section must include:
  - The hypotheses or questions being asked;
A description of the investigations and/or experiments proposed in the sequence in which the investigation or experiments are to be performed;

Techniques and methodologies to be used in carrying out the proposed project, including the feasibility of the techniques. (Describe in step by step fashion exactly what techniques, materials and methods will be used.);

Results expected;

Means by which experimental data will be analyzed or interpreted;

Means of applying results or accomplishing technology transfer, where appropriate;

Pitfalls that may be encountered;

Limitations to proposed procedures; and

A tentative schedule for conducting major steps involved in these investigations and/or experiments.

NOTE: Failure to address each of the issues in the bullet list will diminish the likelihood of the success of your pre-proposal being recommended for funding.

References to Project Description

All references cited in the Project Description should be included in bibliographic format. Although there is no established page limitation for the references, this section must include bibliographic citations only, and must not be used to provide parenthetical information outside of the project description.

Facilities and Equipment

All facilities and major items of equipment available for use or assignment to the proposed project during the requested period of support should be described. In addition, items of nonexpendable equipment necessary to conduct and successfully conclude the proposed project should be listed (including dollar amounts), and, if funds are requested for their acquisition, justification should be included in the Budget Justification.

Collaborative or Sub-contractual Arrangements

If the nature of the proposed project requires collaboration or contractual arrangements with other research scientists, corporations, organizations, agencies, etc, the applicant must identify the collaborator(s) and provide a detailed explanation of the nature of the collaboration. Evidence in the form of a letter of intent (may be in the form of an e-mail) from all collaborators must be provided to assure reviewers that collaborators or sub-contractors involved have agreed to render the indicated services. The letter of intent must include specific details describing the services the collaborator will provide.

Budget Requests

Please complete the ‘FY14 Individual Project Pre-Proposal Budget Justification Form’ by following the instructions on the form. You must also complete a budget using either ‘FY14 Individual Project Pre-Proposal Budget’ form or the ‘FY14 Multi-PI Project Pre-Proposal Budget Worksheet’ (MS Excel file). If the ‘Multi-PI Budget Worksheet’ is used, please remove the budget form from File 1 before uploading to the EPS System. Your pre-proposal should include a ‘Year 1’ and ‘Year 2’ budget request. NOTE: In the majority of cases, total request for Year 1 and Year 2 should be the same amount.
Multi-PI Budget Worksheet: The ‘Multi-PI Budget Worksheet’ was developed for use by PIs whose proposed research includes components at multiple institutions. In such cases, if a pre-proposal is recommended for funding, the awards would go directly to the individual institutions from USDA-ARS. This form should be used in place of the ‘Individual Project Pre-Proposal Budget’ page, as it provides for both the individual budgets as well as the total requested amount for the proposed research. However, when using this form, separate Budget Justification Forms should be included for each individual budget request. This form can be downloaded from the Scab Website at [http://scabusa.org/research_rfp14](http://scabusa.org/research_rfp14) under ‘SPECIAL FORMS’. The file contains detailed instructions on completing the budget worksheet which contains calculated fields.

Instructions for submitting Multi-PI Budget Worksheet: You must first convert the Excel budget worksheets to a single PDF file before uploading (as a separate file i.e. do not merge with File 1) to the EPS System. Contact the NFO if you need assistance with this step.

Tuition Remission: Tuition remission is permitted under USDA-ARS extramural agreements with any type of recipient organization (i.e. universities). If tuition remission is budgeted as a direct cost, it should be included in the "Other Direct Costs" category of the Budget Page (Section H).

Policy on Indirect Cost (IDC) Rate: The USWBSI’s review process focuses on the competitiveness of total project costs (direct and indirect). Because Fusarium head blight is such a severe problem for the U.S. wheat and barley industries, the USWBSI has set the rate limit for indirect costs at 5%.

FILE 2: Curriculum Vitae and Publication List (CV/Pubs)

Curriculum Vitae and Publication List (Maximum four pages for CV with Publication List per Scientist)

To assist peer reviewers in assessing the competence and experience of the proposed project staff, all personnel who will be involved in the proposed project must be identified clearly. The items listed below should be included for all personnel (PI, Co-Investigators, and secondary scientists (i.e. post-docs, graduate students)) who are expected to work on the project in a significant fashion (e.g. expectation of co-authorship on ensuing publications), whether or not funds are sought for this support:

- **Curriculum Vitae (C.V.):** The C.V. should be limited to a presentation of academic and research credentials, e.g., educational, employment and professional history, and honors and awards. Unless pertinent to the project, do not include meetings attended, seminars given, or personal data such as birth date, marital status, or community activities.

- **Publication List:** A chronological list of all publications in refereed journals during the past five years, including those in press, should be provided for each professional project member for whom a Curriculum Vitae is provided. Non-refereed technical publications that have relevance to the proposed project may be included.

The C.V. and Publication List combined must not exceed four pages per scientist. C.V. and Publication Lists for collaborators or sub-contractors are not required.

Submission Instructions: PIs and Co-PIs are responsible for uploading their own CV/Pubs to the EPS System. CV/Pubs for all secondary scientists should be included in the PI’s file. The CV/Pubs will only need to be uploaded one time whether or not the investigator is connected to multiple pre-proposals. File must be uploaded to the EPS System by September 17, 2013.
FILE 3: Current and Pending Support (CPS) Form
CPS form can be downloaded from RFP website at http://scabusa.org/research_rfp14

All project pre-proposals must contain completed Current and Pending Support Forms for PI and all Co-PIs listing other current public or private support to which key personnel identified in the pre-proposal have committed portions of their time, whether or not salary support for person(s) involved is included in the budget. Analogous information must be provided for any pending proposals that are being considered by, or that will be submitted in the near future to, other possible sponsors, including other USDA Programs or agencies, and the USWBSI. Concurrent submission of identical or similar proposals to the other possible sponsors will not prejudice pre-proposal review or evaluation by the USWBSI for this purpose. However, a project pre-proposal that duplicates or overlaps substantially with a proposal already reviewed and funded (or to be funded) by another organization or agency will not be recommended under this program. The third column (‘Requested/Award Amount’) on the ‘Current and Pending Support Page’ has been divided into two sub-columns: Total $ Amount and PI $ Allocation. For each grant/proposal listed, include both the total (‘Total $ Amount’) and the amount you have or may receive (‘PI $ Allocation’).

Submission Instructions: PIs and Co-PIs are responsible for uploading their own Current and Pending Support Form to the EPS System. The CPS Form will only need to be uploaded one time whether or not the investigator is connected to multiple pre-proposals. File must be uploaded to the EPS System by September 17, 2013.
IMPORTANT DEADLINES

Pre-Registration

User Registration Form: The submission of this form will setup the PI’s user account within the EPS System.

Proposed Research Form: Information submitted on this form pertains to the proposed research being submitted and will be used by the NFO to configure the EPS System for each PI.

Pre-Registration Deadline: August 30, 2013

Check List of Required Items for Individual Project Pre-Proposals

FILE 1: Project Pre-Proposal (complete in order below)

- Application for Funding Cover Page
- Project Summary Form (must fit within text box)
- Summary of Progress for Ongoing Funded Project(s) – FY13 (one page maximum per project)
- Project Description (five pages or less written text; ten pages or less in total including figures and tables)
- References to Project Description
- Facilities and Equipment
- Description of Collaborative Arrangements
- Letters of intent from each collaborator and/or Co-PI
- Budget Justification Form
- Project Pre-Proposal Budget Form (use either Individual or Multi-PI Budget forms; if ‘Multi-PI Budget form is used, convert to PDF and upload separately (from File 1) to the EPS System)

FILE 2: Curriculum Vitae and Publication List (maximum of four pages total per scientist)

FILE 3: Current and Pending Support Form

Submission of FY14 Pre-Proposal Deadline: September 17, 2013