PREFACE – This is the 10th year of the Sclerotinia Research Initiative. The Initiative is leading a process to continue development of a comprehensive *Sclerotinia sclerotiorum* research plan with related budgetary considerations that is passed on to the USDA-ARS as a recommendation. The Steering Committee of the Initiative seeks pre-plans of work for FY2011 to address important research areas related to managing this disease. **Potential principal investigators (PIs) should carefully read the instructions that follow and ensure that their pre-plans of work conform exactly to the described format – instructions have been modified for FY2011.**

INTRODUCTION – The goal of the Sclerotinia Initiative is to use cooperative research to expeditiously discover economic solutions in the area of crop management, crop protection and enhanced plant varieties to combat the disease of Sclerotinia or white mold. The Initiative is guided by a Steering Committee that includes commodity group and ARS representatives. Each year, the Steering Committee submits to the USDA-ARS a comprehensive and optimized research plan designed to achieve the Initiative's goals. That plan is the Initiative's recommendation for how the USDA-ARS can most effectively employ the funds appropriated by the U.S. Congress for collaborative *Sclerotinia sclerotiorum* research. Funding for the fiscal year 2011 Initiative is contingent on appropriations being approved by the U.S. Congress.

The Initiative is now asking for pre-plans of work for potential research projects for funding in fiscal year 2011. Depending on your institution's requirements, the authorized organizational representative's signature may not be required at this stage. Submitted pre-plans of work will be evaluated by both an independent Scientific Review Panel and by Affiliated (commodity) Group review committees. Those judged to have scientific merit will be asked to prepare final plans containing authorized organization signatures, revised budgets, and any required changes in the proposed research, within 60 days from receipt of notification. Participating Sclerotinia Initiative commodity groups include: 1) canola, 2) dry bean, 3) pea, lentil & chickpea, 4) soybean, and 5) sunflower. Pre-plans of work addressing one or all of these crop areas will receive priority during the review/funding process. Pre-plans of work that include collaborations with scientists working on other crops will be accepted provided one of the five participating crop groups remains the primary focus of the collaboration. Additionally, basic research on *Sclerotinia sclerotiorum* that is not related to any crop, but substantially advances scientific knowledge of the disease will be considered.

Pre-plans of work will be accepted in the following four areas of research:

1. Crop Germplasm Resources and Genetics
2. Pathogen Biology and Development
3. Pathogen and Host Genomics
4. Pathogen Epidemiology and Disease Management (including crop production practices & biological/chemical control)

Based on the Sclerotinia Initiative Strategic Plan, expanded research in the areas of epidemiology and disease management and pathogen biology and development is encouraged. The following research needs continue to be priorities for FY2011 funding:

a. Develop and implement integrated management strategies for Sclerotinia

b. Identify germplasm and/or wild species with resistance to Sclerotinia

c. Move resistant germplasm into hybrids/varieties for multiple site testing

d. Identify and/or evaluate chemical or biological fungicides and application technologies for use in Sclerotinia management

e. Characterize genetic and biological variation among different Sclerotinia populations

f. Study host-parasite interactions to determine disease vulnerability during crop development

g. Develop additional information on effect of crop rotations/sequences and related crop production techniques on Sclerotinia severity and management

h. Conduct research on host/pathogen genomics including genome-wide gene expression, gene profiling of susceptible and resistant hosts, and marker development

i. Develop and/or refine Sclerotinia forecasting models/risk maps for integration into IPM programs

A single PI may submit multiple pre-plans of work; however, each pre-plan (i.e. project) will be handled as a distinct, autonomous and complete submission**.** Submitted pre-plans of work may be of any duration in time. The steering committee encourages the conceptual development of multi-year projects to address long-term research needs. However, funds will only be distributed to cooperators for 12 month periods. Funding decisions for continuation of multi-year projects will be based on progress made as defined in the following section, as well as on fund availability and scientific priorities. The long-range goal of the Steering Committee is to make the Initiative an annually funded program based on need to ensure multi-year project continuity. During the FY2011 cycle, new Specific Cooperative Agreements (SCA's), those receiving funds for the first time in FY2011, will be in effect July 1, 2011 through June 30, 2012, and existing SCA's receiving funds in FY2011 will be in effect May 31, 2011 through June 30, 2012. Thereafter, all SCA's will be in effect July 1 through June 30 for each funding cycle.

REVIEW PROCESS - The deadline for submitting pre-plans of work is **December 10, 2010**. Pre-plans of work postmarked on or before that date will be initially reviewed by the Administrative Office (ARS, Fargo, ND) of the Sclerotinia Initiative and then forwarded to an independent Scientific Review Panel and to Affiliated Group review committees from each participating commodity organization. Funding recommendations will be made following the review process identified in the Sclerotinia Initiative By-laws, located at: www.whitemoldresearch.com

The Scientific Review Panel(s) will judge each submitted pre-plan of work using the following criteria:

A. **Scientific Merit, Conceptual Adequacy & Innovation** – is the work well conceived? Is the planned work novel? Does it include an innovative approach to answering the objectives? Are the methods and procedures appropriate? Are hypotheses and objectives clearly delineated? Is the work feasible as defined? What is the probability that the described research will be completed within stated time frames? Does the work duplicate existing or previously conducted research?

B. **Institutional Qualifications** – are the researchers qualified to conduct the proposed study? Are researchers aware of current literature on the proposed area of study? Are available facilities, instrumentation, equipment, personnel, and existing funding adequate to provide proper augmentative support of the proposed study? Is the amount of requested dollars adequate, excessive, or too low to complete the study?

C. **Relevance and/or Progress** – does the proposed study address the prioritized needs of the Initiative based on guidance provided by the Sclerotinia Initiative Steering Committee? Does the study directly relate to action items determined from the Initiative Strategic Plan? Will the work lead to development of new knowledge or new technology to manage the disease? Is reasonable progress being made if the submitted pre-plan of work is a continuation of a previously funded study? (Plans of Work funded for three consecutive years must show

quantitative progress before additional funding will be considered. Examples of progress include: germplasm release, publications, patents, etc.)

If you have any questions regarding the web-based submission process, forms, etc., please contact: Kim Swanson, USDA-ARS, Fargo, ND; 701-239-1370; kimberly.swanson@ars.usda.gov

For research-related questions, please contact: William Kemp, USDA-ARS, Fargo, ND; 701-239-1371; william.kemp@ars.usda.gov

For questions regarding Specific Cooperative Agreements (SCAs), please contact: Marcie Currie-Gross, USDA-ARS, Ft. Collins, CO; 970-492-7022; marcie.currie-gross@ars.usda.gov

Please note that pre-plans of work will be regarded as confidential documents. Distribution will be limited to parties involved with the review process. **A single hard copy and one electronic copy (submitted as a PDF file via email or on a CD) of each pre-plan of work must be received at the following address postmarked no later than December 10, 2010:**

W. P. Kemp, C/O Kim Swanson, USDA-ARS Red River Valley Agricultural Research Center, 1605 Albrecht Boulevard N., Fargo, ND 58102-2765 (for FedEx, UPS delivery address), 701-239-1370. The electronic copy of the pre-plan of work may be forwarded to: kimberly.swanson@ars.usda.gov

FY2011 ARS Call for Sclerotinia Initiative Research Project Plans

APPLICATION COVER PAGE

PRINCIPLE INVESTIGATOR/INSTITUTION INFORMATION		
Research Plan Title:		
Principle Investigator:		
P.I. Organization:		
P.I. Address:		
P.I. E-mail:		
P.I. Phone:		P.I. Fax:
Total FY11 Funds Requested:	$	Cooperator's Contribution*: $
Second Year Funding Request?	☐Yes ☐No	
If Yes:	Agreement Number:	Total Amount Request: $
Research Plan Title:		
Authorized Organizational Representative (AOR):		
AOR Organization:		
AOR Address:		
AOR E-mail:		
AOR Phone:		AOR Fax:

*The Cooperator's contribution must be no less than 20% of the funded amount of the agreement, of which 10% of the 20% must be in direct costs. Resource contribution of the Cooperator shall consist of a sufficient amount of itemized direct costs to substantiate a true stake in the projects as determined by the ADO. The Cooperator's must be maintained at 20% of the Federal funding throughout the life of the Cooperative Agreements. (Bulletin 04-154, Subpart B, Section 23.b(1).

Rank Research Areas Using Percentages that Best Fit the Proposal: *(Must total 100%)*

_____ % Crop Germplasm Resources and Genetics

_____ % Pathogen Biology and Development

_____ % Pathogen and Host Genomics

_____ % Pathogen Epidemiology and Disease Management (including crop production practices & biological/chemical control)

INSTRUCTIONS

Application Package should include:

1. Application Cover Page *(Page 1)*

2. Summary & Cooperative Agreement Pages: *(Page 2 & 3)*

    a. Title *(Limited to 140 characters including spaces.)*
    b. Objective *(Limited to 3200 characters including spaces.)*
    c. Approach *(Limited to 3200 characters including spaces.)*
    d. Statement of Mutual Interest *(Please provide short statements where requested (red), remainder of text in this section include verbatim.)*

Statement of Mutual Interest:
This Cooperative Agreement, made and entered into by **(insert name of cooperating institution)**, hereinafter referred to as the Cooperator, and the United States Department of Agriculture, Agricultural Research Service, hereinafter referred to as ARS, hereby affirm their mutual interest in cooperative research programs and exchanges. The goal of the Sclerotinia Initiative is to use cooperative research to expeditiously discover economic solutions in the area of crop management, crop protection and enhanced plant varieties to combat Sclerotinia disease.

It is the intention of the parties to this Agreement that the research work shall be for their mutual benefit and the benefit of the people of the United States. Both ARS and the Cooperator are actively engaged in independent complementary research projects to **(insert language relative to this cooperative agreement project here)**. The parties agree that meeting the objectives of this project will strengthen and enhance ongoing research on protection of various crops from this devastating disease.

    e. Cooperator Agrees to:

        1. Work closely with ARS in planning and conducting the research outlined herein (Sections 2b & 2c above, and Section 3, Research Plan, below).

        2. Provide a performance summary report (1-page, single-spaced) no later than July 1st addressing the following:

            a. A comparison of actual accomplishments with the goals and objectives established for the period and findings of the investigator.

            b. The major accomplishments over the life of the project, including their predicted/actual impacts.

            c. Any technologies that have been transferred and to whom.

            d. When any technologies are likely to become available to end users.

        3. Work closely with ARS to prepare findings for publication in peer-reviewed journals and presentations at meetings and/or commodity groups.

        4. The Cooperator's Principal Investigator shall submit copies of all publications resulting from the research conducted under this cooperative agreement to the ARS ADODR. The publication citations will be entered into the ARS publication database for cooperative agreement research accountability purposes and to facilitate data distribution and sharing via the world-wide web. The publication information entered

into the ARS publication database will be accessible to the public through the ARS website(s), including the name of the Cooperator's Principal Investigator and affiliation.

3. Research Plan to include: *(Starts on Page 4)*

   a. Title *(Limited to 140 characters including spaces.)*

   b. Project Summary
   Each pre-plan of work must contain a Project Summary page, which must be assembled as the fourth page of the pre-plan and should not be numbered. The names and institutions of all of the principal and co-investigators should be listed. The summary is not intended for the general reader; consequently, it may contain technical language relating to Sclerotinia 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) and supporting objectives;*
      - *Plans to accomplish project goal(s); and*
      - *Relevance of the project to the goals and priority research needs of the Sclerotinia Initiative;*

   Project Summaries are considered part of the pre-plan of work and are considered confidential.

   c. Project Progress to Date *(Continuing projects only.)*
   Each pre-plan of work that is continuing, seeking support beyond year 1, must contain a Project Progress to Date page as the fifth page of the pre-plan and should not be numbered. This information will be used in the preparation of the Sclerotinia Initiative Annual Report and by the Steering Committee in assessing accomplishments of multi-year projects. The "Project Progress to Date" should be self-contained and should provide the following:

      - Short title together with the names and institutions of all of the principal and co-investigators;
      - Description of problem or question investigated;
      - Description of what was accomplished over life of the current project;
      - Description of actual impact to specific Sclerotinia Initiative goals:

         - Crop Germplasm Resources and Genetics
         - Pathogen Biology and Development
         - Pathogen and Host Genomics
         - Pathogen Epidemiology and Disease Management (including crop production practices & biological/chemical control)

   d. Project Description
   The pre-plan of work should be formatted using Times New Roman (Font not smaller than 12 point) with one-inch margins. The written text of the Project Description **may not exceed 5 (single spaced or equivalent) pages and the entire Project Description may not exceed a total of 10 pages including figures and tables**. **Pre-plans exceeding page limits will be discarded**. The Project Description should immediately follow the Project Progress to Date page. The Project Description should include:

      - Introduction. A clear statement of the goal(s) and supporting objectives or research questions of the project should be included. The most significant published work in the field under consideration, including the work of key project personnel on the current pre-plan, should be reviewed. The current

status of research in this field of science should also be described**. Preliminary data pertinent to the planned research should be included in this section.** All work cited, including that of key personnel, should be referenced.

- Rationale and Significance. Concisely present the rationale behind the planned research. The specific relationship to the Sclerotinia Initiative's stated goals, broad research objectives, prioritized research needs, and ongoing research should be included. If applicable, please indicate if the research proposed could lead to successful acquisition of grant funds from other agencies.

- Research Methods. Specifically, this section must include:

    - The hypotheses or questions being asked;
    - A description of the investigations and/or experiments proposed;
    - Techniques and methodologies to be used, including the feasibility of the techniques (Preliminary data can be included here);
    - Results expected;
    - Means by which experimental data will be analyzed or interpreted;
    - Pitfalls that may be encountered;
    - Limitations to proposed procedures; and
    - A tentative time line to conduct the project.

e. References to Project Description
All references cited should be complete and conform to an accepted journal format.

f. Facilities & 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 project should be listed (including dollar amounts.

g. Collaborative Arrangements
If the project requires collaboration or sub-contractual arrangements with other research scientists, corporations, organizations, agencies, or entities, the PI must identify the collaborator(s) and provide a full explanation of the nature of the collaboration. Evidence (i.e., letter of intent) should be provided to assure that the collaborators involved have agreed to render this service).

h. Vita & Publication List
To assist reviewers in assessing the competence and experience of personnel who expect to work on the project in a significant fashion (e.g., expectation of co-authorship on ensuing publications) the following should be included:

- Curriculum Vita (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 list of all publications in refereed journals during the past five years, including those in press should be provided for each project member for whom a curriculum vita is provided. List only those non-refereed technical publications that have relevance to the proposed project.

The C.V. and Publication List should not exceed 3 pages in total length per investigator (PI, Co-PI, and/or Co-Investigators).

i. Current & Pending Support
All pre-plans of work must contain a completed Current and Pending Support Page (see attached modified CSREES-663 Form) listing other current public or private support to which key personnel identified in the pre-plan has committed portions of their time. 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.

j. Budget
Please complete the Budget Summary Page (see attached form) columns titled "ARS to Reimburse" and "Cooperator Contributions". Annual budgets are also required if submitting a multi-year plan. Funding will be provided as either Specific Cooperative Agreements to cooperating non-ARS institutions (overhead cannot be included) or direct fund transfers to ARS participants. No funds will be provided for PI or Co-PI salaries. A PI is defined as the lead scientist(s) on the project who is a full time employee of USDA-ARS or a cooperating institution. Postdoctoral associates, graduate students, undergraduate students, and technical support staff are not considered Principal Investigators. Additionally, funds provided through Specific Cooperative Agreements cannot be used for purchase of non-expendable items of greater than $5,000 in value. Sclerotinia Initiative funds will be approved for travel only to Sclerotinia related meetings and workshops, and for Sclerotinia research activities.

The Cooperator's contribution must be no less than 20% of the funded amount of the agreement, of which 10% of the 20% must be in direct costs. Resource contribution of the Cooperator shall consist of a sufficient amount of itemized direct costs to substantiate a true stake in the projects as determined by the ADO. The Cooperator's must be maintained at 20% of the Federal funding throughout the life of the Cooperative Agreements. (Bulletin 04-154, Subpart B, Section 23.b(1).

For questions regarding Specific Cooperative Agreements (SCAs), please contact Marcie Currie-Gross, USDA-ARS, Ft. Collins, CO; 970-492-7022; marcie.currie-gross@ars.usda.gov

k. Budget Justification
Include a 1-2 page Justification of the budget items.

l. Synopsis
A page with title and a one paragraph synopsis of the pre-plan of work should be attached after the budget. This will be a non-confidential document that would become part of a database of research created as a result of the Sclerotinia Initiative.

RESEARCH PLAN FORMAT

Title of Proposal: ***(Limited to 140 characters including spaces.)***

Principal Investigator:
Name:
University/Organization:

Cooperator(s):
Name:
University/Organization:
Address:
Phone:

Name:
University/Organization:
Address:
Phone:

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University/Organization:
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Project Summary:

Project Progress to Date ***(Continuing projects only)***

Project Description:

References to Project Description:

Facilities & Equipment:

Collaborative Arrangements:

Vita & Publication List:

Current & Pending Support: *(See Modified Version of CSREES-663 form)*

Budget: *(See REE-454 form)*

Budget Justification:

Synopsis: