OSQR PROJECT PLAN TEMPLATE

A Word file needs to be created and formatted as follows:

- 8.5x11 letter portrait
- Single spaced
- 11-pt, Calibri font
- 14-pt, Calibri (Headers only)
- 12-pt, Calibri (Sub-headers only)
- 1" margins all around
- Left justified
- No end-of-line hyphens
- Header on all pages with Lead Scientist's last name at the left and page number placed flush right, **excluding the cover page**
- Footer on all pages as shown in the template, **excluding the cover page**
- Page breaks as indicated on this document

Background through Approach and Procedures should be 12 pgs, not to exceed 27 pgs, based solely on the number of SYs listed on a project plan:

SYs on Project Plan (fractional FTEs round up)	**Page Number - Max** (suggested background page length)
<2	**12 (**5**)**
2-3.9	**17 (**6**)**
4-6.9	**23 (**8**)**
7+	**27 (**8**)**

For more details visit the OSQR intranet site on Axon:

https://axon.ars.usda.gov/osqr/Pages/Home.aspx

Project Plan

NP XXX – Insert National Program Name
5-Year Review Cycle (Year –Year)

Old Research Project Number
XXXX-XXXXX-XXX-00D

Research Management Unit
Enter Name of Unit

Location – City and State
Enter City and State

Project Title
Enter name of project from approved PDRAM

Investigators	**FTE**
Enter Investigator First and Last Name	1.00
Enter Investigator First and Last Name	1.00
Enter Investigator First and Last Name	1.00

Planned Duration .....# months

Signature Page (Pre-Peer Review)

(SIGNATURE AND DATES MUST BE COMPLETE PRIOR TO DISTRIBUTING THIS PROJECT PLAN TO THE OSQR)

Lead SY Full Name, Project Number and (NP#)

This project plan demonstrates clearly how the research team will conduct research in a manner appropriate for this area of study. The funds committed toward this project are sufficient to support the planned research.

Research Leader **Date**

This project plan was prepared by a qualified research team and demonstrates the research team's best effort towards achieving the assigned research objectives.

Center Director/Location Coordinator **Date**

All internal review and approval requirements have been met. This project plan is relevant to the Agricultural Research Service's National Program [enter NP # and title] Action Plan and was prepared in accordance with the outlined objectives, experimental approach, and project duration previously agreed to by the National Program Team and Research Team. The project plan is now available for peer review.

Area Director **Date**

This Pre-Peer Review Project Plan embodies the objectives described in the related PDRAM or those subsequently approved by the Office of National Programs, and the approaches are suitable for achieving the objectives.

National Program Leader (primary) **Date**

These officials have not performed a scientific merit peer review. Their statements merely express that the research being proposed will be fully funded and technically supported by the research team's Management Unit. Agency approval to implement this project plan shall not be granted without plan certification and external scientific peer review coordinated by the Office of Scientific Quality Review, ARS, USDA.

NOTE: Signature blocks are for applicable persons or their surrogates. Digital signatures are acceptable.

Table of Contents

The following sections should tell a credible story that supports the ARS mission.
(Pages numbers denote maximums unless otherwise indicated; lack of adherence will result in a return to the author for compliance.)

Project Summary

The audience of the project summary are both internal and external to ARS.
This project summary will need to convey the take-home message of your plan.

In 300 words or less, in active voice, provide:

- A clear overview of the problem(s) to be addressed
- Why you are doing this research (knowledge gaps that need to be considered before the problem can be solved)?
- What you will do?
- How you will do it, briefly?
- What is the expected impact, and who are the impacted stakeholders?

Background through Approach and Procedures should be between 12-27 pages, solely dependent on the number of SYs listed in the plan (see first page of template for maximum page numbers).

Background

Need for Research/Relevant Literature

Relevance to ARS National Program Action Plan XXX

- Link the project objectives to the goal of National Program
- State the National Program Component(s) and Problem Statement(s) from the PDRAM

Description of Problem to be Solved

- Discuss the problems that this research will target
- Focus on what is lacking in the respective field of work

Anticipated Deliverable(s)

- Discuss products and outcomes of this research and potential benefits

Customers

- Define customers and stakeholders who will benefit or otherwise have an interest in this research and/or its results

Related Research - Coordination with other projects (ARS and non-ARS)

- Demonstrate how your project is coordinated or associated with other ongoing research projects in and outside of USDA
- Show linkages and relation to other, related and similar, work
    - important when there are related or analogous ARS projects
    - important if there are significant efforts outside of ARS; demonstrating your knowledge and/or cooperation with them can be important
- Describe the latest developments in your field
- Discuss how other research supports your plan for research
- Avoid repeating details from prior sections

Contributions to the field

- How will the generated data impact the field?
- How are the current research gap(s) addressed through the proposed project plan?
- Discuss the benefits to producers and consumers of agricultural commodities.
- Clearly articulate how the proposed project will eventually lead to public benefit

Approach and Procedures

Objectives/Sub-objectives

Objective 1: Verbatim from PDRAM

Sub-objective 1.A:

- Create credible, scientifically testable hypotheses or research goals related to the objectives
- Avoid overly complex statements and words such as "may" or "might" or "could"
- Focus on the experimental design, not the research team or scientific background
- Research objectives should be testable within a 5-year period and scientifically sensible
- All sub-objectives must relate to their "parent" objective from the PDRAM
    - If applicable and intended, describe how objectives/sub-objectives are interrelated
- Illustrate research (Objective) and personnel integration

Collaborations:

- Include any affiliations
- Describe specialized resources or contributions
- Attach supporting letter to plan

Changes in the PDRAM-driven objectives require ONP concurrence and OSQR verification of the approved changes.

Contingencies:

- Consider contingencies that will be undertaken should it not be possible to achieve the stated Objectives/Sub-objectives due to new scientific discoveries, unexpected results, or unexpected complications in acquiring needed data
- Clearly articulate research constraints, lack of expertise or technologies – do not mislead the reviewer
- Discuss approaches and milestones that will be considered if the initial research plan is unsuccessful in evaluating hypotheses or attaining stated objectives
- Describe the basis for modification of sub-objectives as you gain results

Resource and Data Management (3 pages)

Resource Management – Provide one page to describe physical and human resources.

- Describe major physical resources (*i.e.*, facilities, major instrumentation and equipment, etc.) that are or will be made available to accomplish the research.
- List project plan personnel (postdocs, technicians, students, etc.) who are planned to take an active role in carrying out described research, in-house or available with a cooperator or collaborator.

SEE EXAMPLE BELOW:

Dr. Alpha will oversee soil C and N measurements, plant sampling and analyses, gas sampling, and data analyses. His GS-11 Postdoctoral Associate will devote 1.0 FTE to Sub-hypotheses 2b and 2d. His GS-9 Support Scientist, GS-9 Technician and two undergraduate students will devote 0.5, 0.3, and 0.5 FTEs, respectively, to Objective 2. Dr. Beta will conduct the intensive CO2 flux measurements. A constant temperature room, infrared gas analyzer, automated colorimetric analyzer, and CNS analyzer are all available in Dr. Alpha's lab or nearby labs to which we have access. A deep-core sampler is installed on a pickup truck and is available for use at the location. The rainfall simulator for measuring soil water infiltration, runoff, and sediment transport has been built and is being calibrated by Drs. Alpha and Gamma.

- If personnel vacancies exist in the project plan:
  - 1st consider leaving them out of the plan and having an ad hoc review performed at a later date OR
  - 2nd discuss the expertise, discipline, and expected contribution of the new scientist to specific objectives, and include the following language:
    "***Due to a temporary reduction in resources/vacancies, which are being negotiated with the ARS administration to fill, Objective-XYZ or Sub-objective-XYZ will be deferred, or partially investigated by Dr. ABC, until qualifying personnel/additional resources are secured. Every effort will be made to investigate Objective-XYZ or Sub-objective-XYZ until it becomes evident that the vacancies/resources cannot be filled, at which time a revision in Objectives/Sub-objective will be submitted for consideration by the Office of National Programs.***"
    OR
  - 3rd if there is a postdoc or other research scientist that is able to fill the vacancy gap, describe such.

Data Management Plan – Provide up to two pages describing how data and metadata used and developed during the research project will be managed and shared both during and after the research period. Unless prohibited by law (*e.g.*, personally identifying information, PII), any such data should eventually become available to the general scientific community. Describe the following:

- Expected Data Types
  - Provides a description of the data generated by the study (e.g. environmental data gathered through real-time sensor readings; genomic sequence data). Metadata describing the data should be recorded for each experiment, this may include information regarding instrumentation and its configuration embedded in the files produced by sensors or sequencing machines. The plan should indicate if the study will use data from other studies and their source.
- Data Format and Standards
  - Describes the data formats (e.g. csv, pdf, doc) for both raw and processed data. The plan will also describe any plans for digital conversion of non-digital data. Metadata and data standards

will be recorded in this section of the plan. It is strongly encouraged that researchers will use community-recognized, non-proprietary standards (e.g. ICASA Master Variable List; Gene Ontology; Integrated Taxonomic Information System).

- Data Storage and Preservation of Access
  - This section of the plan discusses how the data will be managed throughout the active phase of data gathering and analysis and identifies the provisions made for depositing experimental data in a trusted/certified repository for long-term preservation and archiving at the conclusion of the study. The section will indicate the anticipated storage needs; retention period for the data; and contingency plans to avoid data loss.
- Data Sharing and Public Access
  - Describes data sharing within project teams during and after data collection. Explanation for: restrictions; embargo periods; and licensing. Descriptions of the public access provisions, intended use for the data, suggested citation and fund codes. Provided in this section any justification for extended embargo periods and the plan to ensure research personnel are capturing adequate metadata and robust data management throughout the active experimental phase to guard against data loss. Summarizes the data publishing timeline.
- Roles and Responsibilities
  - This section outlines who will take the lead to ensure the Data Management Plan is implemented. Establishes the contingency plan if key personnel leave the project. Ensures sufficient resources are available for data management.
- Monitoring and Reporting
  - Describes how the project will be monitored and who and where reports will be filed to document the implementation of the Data Management Plan.

For additional information: https://www.nal.usda.gov/ks/guidelines-data-management-planning

Milestones

- Specify achievements and the target dates
  - EX: Complete a database by 3rd quarter of 2021
- Milestones should allow for determination of whether or not progress is being made
- Display effective planning by linking milestones to objectives
- List conceivable milestones (legitimate reasons allow for creation of a new milestones)
- Illustrate the relationships among objectives, overall goals, or outcomes
- Use table provided below
- Information provided should allow for stand-alone document
- 9-pt, Calibri font

SY Team:

Project Title	New Title
Project No.	Same number as in footer
National Program (Number: Name)	
Objective	From PDRAM 1:
NP Action Plan Component	From PDRAM for that objective
NP Action Plan Problem Statement	From PDRAM for that objective
Sub-objective	1A: Match the Objectives section; use only if there are Sub-objective(s) associated with the objective.
Goal/Hypothesis	

SY Team	Months	Milestone	Anticipated Product	Progress/Changes
	12			
	24			*This column for Area Office plan management.*
	36			
	48			
	60			

Goal/Hypothesis	If multiple for the Sub-objective

SY Team	Months	Milestone	Anticipated Product	Progress/Changes
	12			
	24			*This column for Area Office plan management.*
	36			
	48			
	60			

Bibliography (no page limit)

Literature Citation(s)

- This is not to be a comprehensive bibliography
- List the literature relevant to each objective and sub-objective
- Literature cited should be sufficient to demonstrate investigators have current knowledge and understanding of their respective fields of study
- Published results of past project plans or other preliminary results of the investigators relevant to the current project plan should also be cited
- All citations should be a consistent format

Accomplishments/Achievements (4* pages)

***Pages may vary based on number of SYs listed in a project plan.**

Investigator(s) Past Performance

- Accomplishments of each investigator (2-page CV maximum per SY which includes most important references to this project plan)
- Include most significant accomplishments and impacts related to the proposed work
- Include applicable funding, internal and external to USDA (grants, etc.)

Previous Project Results (2 pages)

- Achievements/results of previous project(s) related to present project plan
- Relevant publications (no time limit)
- Discuss how the proposed research builds on past accomplishments (if applicable)
- Tabular/bulleted format is acceptable

Issues of Concern Statement (2-3 pages)

Issues of Concern Statement should address those relevant to your plan. Include any obstacles which involve collaborators and any of the following:

- Animal Care. Where animals are part of the research, indicate responsible authority (Institutional Animal Care and Use Committee) for assuring and monitoring compliance, including either chair or overseeing official.
- Endangered Species. If there is potential impact to endangered species, it should be noted along with the monitoring authorities relevant to assuring appropriate protection and compliance.
- National Environmental Policy Act. ARS research may be categorically excluded if, (per NEPA 7 CFR 520) it can be demonstrated they are "… of limited size and magnitude or with only short-term effects on the environment…An environmental assessment shall be prepared for an activity which is normally within the purview of categorical exclusion if there are extraordinary circumstances which may cause such activity to have a significant environmental effect."
- , Categorically Excluded under the National Environmental Policy Act regulations. If this is confirmed to be the case, plans can state "On the basis that this Federal project is undertaken for the sole purpose of conducting research, this project is categorically excluded, in accordance with the National Environmental Policy Act (NEPA)."
- Human Studies. Relevant plans must document their compliance with regulations and policies regarding the use of human subjects and identify the responsible office or authority for assuring and monitoring compliance. ALL plans should address this. Where it is not applicable, a statement that the research does not involve human subjects must be included.
- Laboratory Hazards/Safety. Training and, where appropriate, certification of research personnel with regard to biosafety must be indicated. Indication of the authority responsible for assurance of compliance and monitoring is needed.
- Occupational Safety and Health. Training and, where appropriate, certification should be stated, and the relevant office or officer with regard to Safety and Health should be identified.
- Biosafety/Biosecurity/Quarantine. The institutional biosafety committee (IBC) relevant to work at the location and its chair at the time of submission of the plan should be identified for ALL plans. If relevant, an IBC license number must be included. Appropriate training and, where relevant, certification should be noted. Where potential exists (rare) for research to be considered as Dual Use Research of Concern (DURC) it must undergo review coordinated by the NPL to assure that the plan can be sent to external review (For further information on DURC see ARS Policies and Procedures 621 "Dual Use Research of Concern" (www.afm.ars.usda.gov/media/10456/6210.pdf). Where issues related to quarantine exist, appropriate training and/or permits should be indicated.
- Intellectual Property. All plans should, at minimum, state that intellectual property issues are coordinated through the ARS Office of Technology Transfer and the Area (note which Area) Technology Transfer Coordinator. If there are Agency, Department, or international agreements or laws that limit dissemination of results, identification, import, or distribution of materials (including national sovereignty issues such as for biological resources), or procedures in the plan, or that have other related impacts, they should be noted here.

List of Acronyms and Abbreviations (no page limit)

STANDARD TERMS BELOW, ADD AS NECESSARY

AA	Associate Administrator
AAD	Associate or Assistant Area Director
AC	Administrator's Council
AD	Area Director
ARS	Agricultural Research Service
ARIS	Agricultural Research Information System
CRIS	Current Research Information System
DA	Deputy Administrator
LS	Lead Scientist
NACA	Non-Assistance Cooperative Agreement
NAL	National Agricultural Library
NPL	National Program Leader
ODA	Office of the Deputy Administrator, ONP
ONP	Office of National Programs (formerly NPS)
OSQR	Office of Scientific Quality Review
PA	Program Analyst
PDRAM	Program Direction and Resource Allocation Memo
RL	Research Leader
SQRO	Scientific Quality Review Officer
SY	Scientist Year

Letters of Collaboration or Cooperation (no page limit)

- Each letter should be specific about the role of the collaborator and what each collaborator contributes to the described research (your Approach and Procedures section should put these contributors in context)
- Generic statements of collaboration should be avoided
- Seek letters early in your project plan writing as they are a requirement to constitute a complete plan
- If a contributor is listed on the cover page as an SY, a letter is not necessary
- If a NACA exists, provide a letter from the cooperator that states such and describes the role the cooperator plays in the Approach and Procedures. A copy of the NACA agreement in lieu of a letter is acceptable
- For all letters of collaboration, include an alphabetized list of collaborators with organization affiliation and the relevant Objective or Sub-objective (*e.g.*, Doe, Jane - ABC University, Sub-Objective 1A) and copies of the letters in such order with pagination

Appendices (3 pages)

- Optional section, up to 3 pages maximum
- List by page number
- Supplementary materials that are essential to the plan