

HANDBOOK



for Research Project Leaders

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Alabama Agricultural Experiment Station
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Auburn University
Auburn, Alabama

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HANDBOOK FOR RESEARCH PROJECT LEADERS

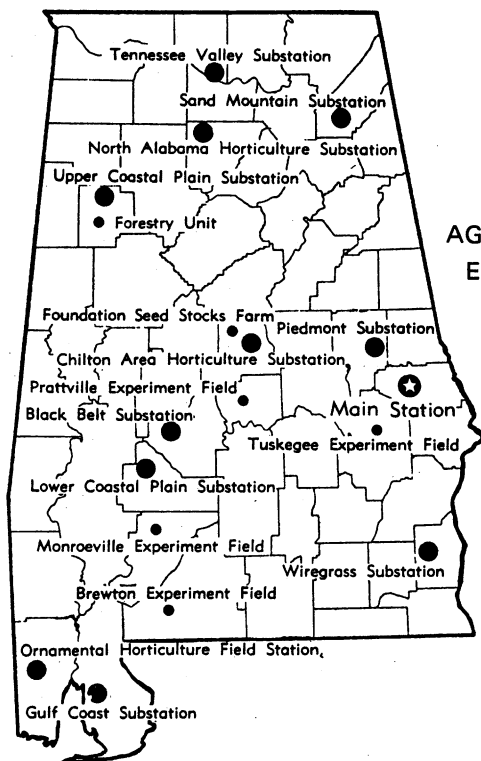
INTRODUCTION

This Handbook is intended to provide the project leader with a concise description of primary research administrative procedures for the Alabama Agricultural Experiment Station. It is not intended to be a complete reference source but rather a summary outline of policies and procedures governing major activities involved in project administration.

For items not covered in this Handbook, the project leader should consult reference sources available in his department head's office or the Director's Office.

A sincere effort is made to keep to a minimum the number of administrative details for which the project leader is responsible. However, each project leader needs to be familiar with basic policies and procedures of the Alabama Agricultural Experiment Station in order to maintain efficiency and achieve maximum productivity. Project leaders are encouraged to contact the Director's Office to discuss any problems that should arise relative to their research programs.

Irvin T. Omtvedt
Associate Director



ALABAMA
AGRICULTURAL
EXPERIMENT
STATION
SYSTEM

REFERENCE MANUALS

CRIS Forms. "Manual for Preparing CRIS Forms." CSRS-OD-1258. Revised May, 1973. This booklet provides helpful, practical step by step instructions on completing CRIS Forms 416 (Research Resume); 417 (Research Classification); 421 (Progress Reports); and 427 (Request for CRIS Information Retrieval).

Classification of Research. "Manual of Classification of Agricultural and Forestry Research." Revision II. This booklet includes code words and numbers required for the research classification form (AD-417). It is highly important that projects are correctly coded as to activity, field of science, research problem area, and commodity in order to obtain accurate data for program analyses.

Hatch Research. "Administrative Manual for the Hatch (Experiment Station) Act as Amended." Agricultural Handbook 381. USDA-CSRS. This booklet briefly explains the background, purpose and provisions of the Hatch Act. Administrative uses and limitations on Hatch funds, are also included in this publication.

Marketing Research. "Guidelines for Marketing Research." CSRS-OD-1100. June 1974. This explains the guidelines and requirements for marketing research, types of research that qualify, marketing research in Rural Development, and exceptions to the "Farm Gate" rule.

McIntire-Stennis Research. "Administrative Manual for McIntire-Stennis Cooperative Forestry Research Program." Agricultural Handbook 324, gives the purpose of the McIntire-Stennis Act, administrative procedures, and a copy of the actual Act.

Protection of Human Subjects. "The Institutional Guide to DHEW Policy on Protection of Human Subjects." DHEW Pub. 72-103. This booklet describes reviews, enforcement, etc. of federal policy to protect participants in research projects.

Regional Research. "Manual of Procedures for Cooperative Regional Research." CSRS-OD-1082. USDA-CSRS January 1970 and Revised February 1973. Manual contains the procedures for cooperative regional research supported by Regional Research Funds (RRF).

TYPES OF RESEARCH PROJECTS

THE PROJECT is the basic administrative unit of research. While the Experiment Station Director, through consultation with other station directors, commodity groups, industry representatives, and his agricultural research staff determines research areas for the Station, the department head is responsible for deciding what projects are needed in areas for which the department is responsible. All research conducted by the Agricultural Experiment Station is documented and supported by research projects that conform to overall priorities and objectives of the Station. The project leader is responsible for initiating new projects and providing day-to-day supervision of the projects.

The research is organized and administered on a departmental basis, but this should in no way discourage development of a team approach in attacking a particular problem. Joint projects involving more than one department are encouraged in order to ensure utilizing the greatest competence available.

It is important to keep in mind that quality of research and justification for future research funding are controlled by project leaders. Consequently, careful selection and development of each research project are essential.

All projects in the Agricultural Experiment Station are classified as being either Federal or State. The type of project is determined by the source of funding used to support the research. The Administrator of Cooperative State Research Service (CSRS) of USDA is responsible for final approval of all Federal Projects while the Director is responsible for final approval of all State projects.

Federal Projects

Any project that is to be supported either solely or partially by Federal Funds is classified as a Federal project. The Director's Office assigns three-digit numbers using numbers under 600 for Hatch projects; numbers over 600 for Marketing projects; and numbers above 900 for McIntire-Stennis projects. There are five types of federal project designations at present.

Hatch Funds. These funds are appropriated by Congress for support of agricultural research in Agricultural Experiment Stations of Land-Grant Colleges and Universities as authorized by the Hatch Act of 1887 and amended in 1955. State funds can be assigned to Hatch projects, but McIntire-Stennis funds cannot be used.

Hatch Marketing. These are Hatch projects that include marketing-related research. Marketing is generally considered to be "beyond the farm gate" involving costs, marketing efficiency, consumer preferences, handling techniques, reduction of pollutants in foods, or product utilization. Projects must have at least part of one objective that specifically involves marketing to qualify.

McIntire-Stennis. The McIntire-Stennis Cooperative Forestry Research Act of 1962 provides funds to support tree, forestry, and forestry-related research. To qualify for these funds, the research should directly involve tree production, management, harvesting, or use of forest resources. Hatch funds cannot be used on McIntire-Stennis projects.

Regional Research. Regional projects are collective efforts by two or more cooperating state researchers which pool individual strengths and expertise toward problems of common concern. They are administered jointly by CSRS and cooperating state stations to help ensure maximum coordination and cooperative efforts and to avoid duplication. Regional projects are approved as Hatch, Hatch-Marketing or State projects, but also have a designated regional project number, such as S-73, S-92, etc.

The director of each participating state designates a technical representative, and the technical representatives from each cooperating state, meet annually after a working group has developed a project and it has been approved. By law, not more than 25 percent of Hatch and Hatch-Marketing funds are to be used for regional research. Project outlines are required for all regional projects. If a project is to be supported entirely with Regional Research Funds (RRF) and it is anticipated that no other funds will be assigned, the regional project outline can be used as a substitute for the state's project outline.

Rural Development. Special Title V grant funds under the Rural Development Act of 1972 are provided to the Agricultural Experiment Station and the Agricultural Cooperative Extension Service for research contributing to overall economic development and resources, including human resources, in rural areas.

State Projects

All projects that do not include federal funds described above are classified as State projects. Most funds appropriated by the State Legislature are used to supplement Federal projects and to meet matching requirements for federal-grant funds. State funds are also used for maintenance of outlying units, and for research that is unique to Alabama. However, these funds are occasionally used for the exclusive support of a project and a project outline is required the same as for Federal projects. Most grants or contracts are covered by a State project number and outline.

Projects supported entirely with State funds, with grants, or with unrestricted funds from any source are designated by a code number identifying the department or outlying unit followed by a dash followed by a three-digit number. Departmental and Outlying Unit codes are:

| | |
|------------------------------|----|
| Agr. Econ. & Rural Sociology | 1 |
| Agricultural Engineering | 2 |
| Agronomy & Soils | 3 |
| Animal & Dairy Sciences | 4 |
| Botany & Microbiology | 5 |
| Forestry | 7 |
| Horticulture | 9 |
| Poultry Science | 10 |
| Animal Health Research | 11 |
| Home Economics Research | 12 |
| Zoology-Entomology | 13 |
| Black Belt | 14 |
| Chilton Area Horticulture | 15 |
| Gulf Coast | 16 |

| | |
|--|----|
| Lower Coastal Plain | 17 |
| North Alabama Horticulture..... | 18 |
| Piedmont | 19 |
| Sand Mountain | 20 |
| Tennessee Valley | 21 |
| Upper Coastal Plain | 22 |
| Wiregrass | 23 |
| Ornamental Horticulture Field Station..... | 24 |
| Fisheries | 27 |
| Interdepartmental | 50 |

Projects Supported by Grants, Contracts and Auxiliary Funds

Grant requests should be limited to projects that will supplement a project leader's program of research in the department. When the grant has been approved, the department head is responsible for notifying the Director as to which project it will support. If a separate annual report is required, the department head should assign a State project number.

Refer to the section on Research Grant Proposals (page 7), for instructions on preparing proposals for outside support.

There are three basic types of non-appropriated funds available to support research projects:

Federal Grants and Contracts:

Government agencies, such as NIH, NSF, USDA, and AEC,

support projects by grants or contracts. Proposals are prepared by the project leader and approved by the department head, the Director, the Business Manager, and the Vice-President for Research before being submitted to the granting agency for consideration. The Cover Form for Extramural Programs is used to transmit the proposal for on-campus approval (page 4).

Commercial Grants and Contracts:

Grants made to departments by commercial companies to support research in the Agricultural Experiment Station must be approved by the Director and the Vice-President for Research. Approval is accomplished by developing a budget and a Memorandum of Agreement which specifies the amount and terms of the grant, and then transmitting it on-campus using the Cover Form for Extramural Programs (page 4). A Memorandum of Agreement must be executed for each grant. Copies of the standard Memorandum of Agreement form given on page 5 may be obtained from the Director's Office. Funds from such grants may be used to support previously approved projects or new outlines may need to be prepared if the work is not covered under existing projects. The department head must inform the Director and Comptroller as to how the grant funds are to be used and as to which projects they will support.

Auxiliary Research Funds:

Funds received from the sale of salvageable products from research are deposited in the department's Auxiliary Research Account for use in support of research.

PROJECT DEVELOPMENT

Project leaders are responsible for initiating research projects that involve original ideas and utilize the most efficient and effective methods available. This requires consultation with colleagues at Auburn and scientists working in similar areas at other institutions. Project leaders are encouraged to utilize these people as much as possible in the project development process. They should also utilize services of the Research Data Department, the Current Research Information System (CRIS), and the Auburn Library information retrieval system.

Research Data Department

This department provides a service to project leaders to assist them in increasing efficiency and in designing experiments to ensure optimum value from results obtained.

In order to ensure proper experimental design, project leaders should consult with personnel in the Research Data Department during the project development phase. The primary objectives of the department are:

1. Provide consultation regarding experimental design and data analysis for the Agricultural Experiment Station staff and graduate students.
2. Process, tabulate, summarize and statistically analyze data for all project leaders and graduate students associated with the Agricultural Experiment Station.
3. Serve as liaison for special computer problems. Many

project leaders are qualified to program and process their own data, but members of the Research Data staff are available to assist those who are less experienced and those who require rather complex computer processing. All researchers are encouraged to learn how, whenever possible, to use without assistance, the routine simple programs that are available.

4. Process, prepare, and preserve all data from the outlying units of the Agricultural Experiment Station. It is the responsibility of the project leader to assure that current research results from experiments on outlying units are properly made a part of the permanent record. Copies of all experiment outlines and research agreements for work on outlying units are to be filed with Research Data Department.

The key punches, verifier, and sorter in the Research Data Department are available to staff, graduate students, or clerks by appointment. Special arrangements also can be made to use this equipment at night.

All services, except for cards, card punching, card verifying, and clerical services, are provided without cost.

Current Research Information System (CRIS)

CRIS was initiated in 1969 and is now becoming an important research tool for both project leaders and research administrators. The data bank includes all research being conducted by state agricultural experiment stations and by USDA agencies (USFS, ARS, ERS, SCS, etc.).

COVER FORM FOR
EXTRAMURAL PROGRAMS

AUBURN UNIVERSITY

1. Type of Program : Faculty Research
2. Project Classification: Instructional (), Research (X), Extension (), Other ()
(Check appropriate classification)
3. Type of Request: Initial proposal (), Renewal (), Extension (), Modification ()
4. Project Title: State complete project title

5. Grantor: Name of granting agency Address
Deadline Date for Receipt by Grantor:
6. Duration - This period beginning and ending dates Total project beginning and ending dates
7. Amount Requested - This period total amount Total project total amount
8. Commitments Required of Auburn University: Space (), Equipment (), Personnel (),
(check appropriate commitment)
Matching funds (), Cost-sharing (), Other (). EXPLAIN ON AN ATTACHED SHEET.
9. Project Leader: Person responsible for project Department
10. Remarks: Explain what is attached

11. Approval: (Note: Approval by Department Head and Dean or Director signifies that adequate space, equipment and personnel are available for the project and will be assigned to it, EXCEPT as provided in the budget or explained in the attached statement.)

| <u>Routing of Cover Form</u> | <u>Approval</u> | |
|-----------------------------------|-----------------|-------------|
| | <u>Initials</u> | <u>Date</u> |
| A. Department Head ----- | _____ | _____ |
| B. Dean or Director ----- | _____ | _____ |
| C. C & G Dev. Office ----- | _____ | _____ |
| D. Vice President for : | | |
| Academic Affairs ----- | _____ | _____ |
| Research ----- | _____ | _____ |
| Extension ----- | _____ | _____ |
| E. For Business Office: | | |
| Comptroller ----- | _____ | _____ |
| F. For President's Office: | | |
| Vice President for Research ----- | _____ | _____ |

MEMORANDUM OF AGREEMENT
between the
AGRICULTURAL EXPERIMENT STATION SYSTEM
of
AUBURN UNIVERSITY
and

THIS AGREEMENT, made as of _____, by and between the _____ (hereinafter referred to as _____) and the Agricultural Experiment Station of Auburn University (hereinafter referred to as the STATION):

WITNESSETH :

WHEREAS, the _____ desires to establish at the STATION a grant for the purpose of _____

_____ and

WHEREAS, the Station is willing to accept such a grant and conduct such studies;
NOW, THEREFORE, it is mutually agreed as follows:

The _____ agrees:

1. To place at the disposal of the STATION the sum of _____ according to the following schedule:

The STATION agrees:

1. To do the research described on the attached work plan or project outline which is a part of this agreement.
2. To prepare and furnish the _____ with periodic reports and plans according to the following schedule:

with the understanding that the results will not be used by _____ for advertising or promotional purposes without the approval of the Director of the STATION.

It is further agreed that:

1. The STATION reserves full right of publication, but that upon request the STATION will give the _____ privilege of reviewing any manuscripts before they are published.
2. This agreement is for the period _____ to _____ and may be renewed, revised, or extended by mutual consent of the parties involved.

The STATION in accepting this grant has for its purpose the promotion of improved agriculture.

IN WITNESS WHEREOF, the parties hereto have executed this agreement.

SIGNEES

AGRICULTURAL EXPERIMENT STATION OF
AUBURN UNIVERSITY

by _____
Date

by _____
Department Head Date

by _____
Director Date

by _____
Vice President for Research Date

| | | |
|---|---|---|
| U. S. DEPARTMENT OF AGRICULTURE REQUEST FOR INFORMATION RETRIEVAL CURRENT RESEARCH INFORMATION SYSTEM | FOR CRIS USE ONLY | |
| | STD. TECH. <input type="checkbox"/> OTHER <input type="checkbox"/> NON-STD. TECH. <input type="checkbox"/> | ID NO. |
| | NO. CARDS | HITS & PAGES |
| IMPORTANT: Items 1 thru 6 MUST be completed! | | |
| 1. REQUESTED BY (Name & address of person and Agency - include Zip code) Project Leader's Campus Address | | 2. DATE SUBMITTED Date request prepared |
| | | 3. DATE NEEDED Allow at least 2 weeks |
| 4. INFORMATION RETRIEVAL NEEDED (Be as specific as possible. Use additional sheets, if needed.) | | |

Provide a narrative statement or brief outline describing your requirements in terms of general area of interest and specific concept involved. Include particular resources, commodities, or ideas which form the core of the request.

| | | | | |
|---|--|---|--|--------------------------|
| 5. RESEARCH COVERAGE DESIRED (Check or specify) | | | | OTHER RESEARCH (Specify) |
| USDA RESEARCH ONLY <input type="checkbox"/> | FEDERAL-GRANT RESEARCH (CSRS Admin. only) <input type="checkbox"/> | SAES (State research only) <input type="checkbox"/> | TOTAL RESEARCH FILE <input type="checkbox"/> | |
| 6. SUGGESTED KEY WORDS TO USE (Enter words of your own choosing. The Agricultural Biological Vocabulary, Vol. 2, National Agricultural Library, 1967, is a useful reference.) | | | | |

Include keywords which will accurately define your request.

(Consult Manual of Classification for appropriate codes in items 7-11)

Appropriate entries, where possible, in items 7 thru 11 will simplify retrieval. To complete items 7 thru 9 below, see tables 5, 6, 7 or 8 of CRIS Document No. 1, Rev. Enter by codenumbers as listed in tables.

| | |
|---|-----------|
| 7. ACTIVITIES | |
| 8. RESOURCES, COMMODITIES AND/OR SUB-COMMODITIES | |
| 9. FIELDS OF SCIENCE INVOLVED | |
| 10. RESEARCH PROBLEM AREAS TO COVER (See pages 11 and 12 of CRIS Document No. 4) | |
| 11. SPECIAL CLASSIFICATION ITEMS TO CONSIDER (See pages 12 to 15 of CRIS Document No. 1, Rev. Enter by field No.) | |
| 12. SUBMITTED BY (Authorized Signature) | 13. TITLE |

Although CRIS is relatively new and some revisions are needed, it does provide a convenient method for learning what is being done in any particular area of research.

Form AD 427 (see page 6) is used for requesting information retrieval from CRIS. Data can be retrieved by research problem area, commodity, keywords, or by any combination of these. Searches may display titles, scientist man years, objectives and approach, progress, and publications or any combination. In order to ensure efficient utilization of the CRIS retrieval capabilities, Form AD 427 must be submitted through the Director's Office. Project Leaders should allow for about a 3-week turn-around time.

Auburn Literature Retrieval System

Facilities are also available at the Ralph B. Draughon Library to obtain literature retrieval from the data banks available. Project leaders should contact the Science and Technology Division on the fourth floor of the library as to what services are available. On-line computer access is available for information contained in the National Agricultural Library data base through the CAIN program. The library also has access to other data bases that may be useful to the project leader. These data bases complement the CRIS program since they contain published results whereas the CRIS program contains research in progress.

RESEARCH GRANT PROPOSALS

The following procedures should be used by project leaders in preparing research grant proposals:

1. Inform the Administration:

Any staff member who is contacted or plans to contact any person or organization outside the Agricultural Experiment Station relative to the development of a major research proposal should inform his department head, the Director's Office, and the University Contract and Grant Development Office.

This procedure should reduce the number of errors and changes made in proposals; save time in the final development of proposals; reduce the time needed for processing proposals; and help to clarify the degree to which the project leader can commit himself, his department, the Station, and the University in support of the proposed research work. This is particularly important from the standpoint of necessary commitments of personnel, facilities, equipment, and funds and from the standpoint of problems of cost sharing, matching requirements, salary calculations, determination of indirect (overhead) costs, and other factors affecting budgetary requirements and restrictions.

2. Obtain Administrative Approval of Draft of Proposal:

At least 3 weeks before the deadline for submitting a proposal to the grantor, a draft of the proposal should be cleared through the department head, Director, and the University Contract and Grants Officer. Questions concerning calculation of such items as overhead, fringe benefits, and cost sharing should be raised with the Office of Contract and Grant Development each time a proposal is prepared. These regulations may change from time to time and not all granting agencies follow exactly the same procedures. Do not assume that the procedure used to prepare the last request is still valid.

Proposals for grants or contracts should include a reasonable cost for data processing. If this might involve use of services of Research Data Department or Computer Center, the project leader should consult with the Head of the Research Data Department for estimates. This item should be identified in the budget as a "cost of data processing" and not identified as cost of computer services unless so advised by the Head of Research Data Department and approved by the Director of the Computer Center.

There is a set fee for use of the central processing computer unit for instructional, research, extension, or

public service activities provided as extramural functional projects or programs of the University. These activities generally are funded from extramural sources through contracts, grants, gifts, or appropriate cooperative agreements.

Budgets included in the proposals and in the final award document from extramural agencies should reflect estimates of the amount of computer time and other Computer Center services needed and costs of such time and service. This should include any services rendered by personnel of the Research Data Department. In such cases, Research Data Department and Computer Center costs may need to be listed in budgets as separate direct costs.

3. Prepare Final Copy of Proposal:

After preliminary approval, the proposal should be prepared in keeping with the requirements of the granting agency and the University. The proposal must be submitted with a Cover Form for Extramural Programs (page 4) whether or not any funds are involved.

4. Obtain Administration Approval of Grant Proposal:

The completed proposal should be processed to reach the Office of Contract and Grant Development at least 10 days before any deadline for submitting the proposal. When unavoidable circumstances prevent observing this schedule, requests for exceptional handling should be made through the department head and the Director to the Office of Contract and Grant Development. The President has designated the Vice-President for Research to sign all research proposals and related documents for the University. Therefore, all documents submitted for approval by the University must show a place for signature by the Vice-President for Research rather than a place for the signature by the President. If the form used shows a place for signature by the President of the University, the person submitting the proposal should modify this to show a place for signature by the Vice-President for Research.

Typed documents usually should provide a place for the following signatures in the order listed: Project Leader, Department Head, Director, and Vice-President for Research. On documents that are already prepared that do not have places for the department head or Director, and there is not space on the form for these to be added, their initials will suffice.

Since the Vice-President for Research signs for the

University, organizations will normally notify that office of the action taken and the Vice-President will subsequently notify the Director, department head, and the project leader. In the event a project leader is contacted direct, the information should be relayed to the Vice-President for Research and through the department head and Director.

Most grants by Federal agencies will be announced by the Senator and the local Congressman. All other "announcements" concerning awards of extramural grants of contracts will be made by the Office of the Vice-President for Research through University Relations.

PROJECT INITIATION

Project leaders are responsible for developing and conducting a viable research program and they should obtain a broad case of understanding of the research problem before writing a project. They should confer with their department heads concerning desired direction and emphasis relative to other Agricultural Experiment Station programs and objectives. Discussions, field observations, and consultations with colleagues, with researchers in other departments and at other institutions, with commodity leaders, and with administrators are highly desired in assessing needs and opportunities. The department head and personnel in the Director's Office can provide assistance in locating interested researchers in other

disciplines. Preliminary drafts of research proposals should be circulated to seek comments and suggestions prior to any formal review. Project leaders should make a sincere effort to include details on the conceptual approach and research expectations for the project, as well as adequate justification and background.

The final draft should then be submitted to the department head for a departmental review. Following the departmental review, the project outline is prepared according to the guidelines described in the Project Outline section of this Handbook and then submitted to the Director's Office.

The final draft should then be submitted to the department head for a departmental review. Following the departmental review, the project outline is prepared according to the guidelines described in the Project Outline section of this Handbook and then submitted to the Director's Office.

PROJECT OUTLINE

The Agricultural Experiment Station guidelines conform with federal requirements for project approval. The project leader should remember that the project outline is a formal statement of research intent, utilizing a specific format. It may include a concise description of a series of experiments and procedures used to product answers to specific questions that are stated in the form of objectives. Preparation of an outline assists the leader in organizing his thoughts and planning his research attack on the problem. The outline can be revised at any time and should never be regarded as a document to circumscribe the thinking of the project leader.

The written project is an administrative document that provides a basis and authorization for budgeting funds. All Experiment Station expenditures must be assigned to a project.

Project Form 1 (page 9) is used as the first page of all final project outlines. Additional pages may be attached as needed. In making the preliminary draft, it is not necessary to use this form, but the same format should be followed. Seven copies of any new proposed project or project revision should be sent to the Director's Office. These should be doubled spaced with each major heading of the outline (LITERATURE REVIEW, JUSTIFICATION, PROCEDURES, and LITERATURE CITED) in all caps and centered.

Project Number. The numbers for Federal projects will be assigned by the Director's Office, but department heads should assign numbers for all State projects. Some departments have established codes within the last three digits, but usually the project numbers are assigned in the order of approval.

Contract and grant projects are usually given a number by the granting or contracting agency but this does not replace the need for a regular Alabama number.

Fund. The fund will be designated by the Director's Office upon receipt of a recommendation from the department head.

Title. The title should be a short descriptive summary of a project. It should clearly reflect the nature of the project and should be less than 100 characters in length. Phrases such as "A study of. . .", "Investigations on. . .", etc. should be avoided. Descriptive keywords should be used to indicate the research scope and be readily apparent to non-scientific readers. Use common names and simple terminology so others can quickly grasp your research orientation. If title of proposal is the same as a previous project, the project leader should be prepared to indicate how the new project differs from the previous project.

Departments. All departments of the Agricultural Experiment Station that allot money to the research should be listed. If there is to be cooperation between departments, a typed agreement signed by the cooperators should be attached to the outline unless such a document has been previously executed.

If the work is to be in cooperation with any agency that is not a part of the Agricultural Experiment Station System, reference should be made to the Memorandum of Agreement under which the work will be done.

Project Leader(s). List only the person or persons who will be responsible for directing the research.

Date of Termination or Reappraisal. Insert the calendar date on which the project is expected to be completed.

PROJECT OUTLINE

ALABAMA AGRICULTURAL EXPERIMENT STATION
AUBURN UNIVERSITY

TITLE:

DEPARTMENT(S):

PROJECT LEADER(S):

DATE OF TERMINATION OR REAPPRAISAL:

OBJECTIVES:

Insofar as practical, all projects should be initiated on July 1 and terminated on June 30. If it is expected that more than 5 years will be required, dates of reappraisal should be given followed by the expected date of termination. Long term projects should be reappraised at intervals of not more than 5 years. Funds will not be budgeted to a project beyond the date of reappraisal or termination without written approval of the Director.

Objectives. The objectives should clearly indicate what will be researched. Objectives should be adequately specific to define and indicate what can reasonably be expected from a project. Yet they should be adequately broad to permit flexibility of research investigations without being open-ended or a free license to explore. Objectives should reflect the depth and breadth of research and not have narrow geographic restrictions or limitations. List objectives in clear, concise statements in a logical numerical order.

Literature Review. This section should include the previous work and present outlook. It should include a review of pertinent past and current research and projects listed in CRIS that are pertinent to the problem to be researched. The current status of research, considering both the related sciences and previous efforts is desirable. Include a brief description to indicate related research that the project leader has conducted and how it relates to the new project. Literature citations should be referred to by number in the text whenever possible.

The literature review should summarize only the pertinent research done on the problem and identify questions that remain unanswered. The review should be complete enough to enable the reader to know what has been done. Unpublished data should be reviewed and credit given to the researcher. Work underway at other locations should be mentioned even when data are not available; and the relation of the proposed work to that underway at other locations should be explained. It is not expected that all available references be listed when they are in excess of 10 to 20. However, in such cases the coverage should be sufficient to show that the project leader has adequately reviewed the literature to date before submitting the outline.

PROJECT REVIEW

The initial review and approval of any proposed project is conducted within the department. It is the department head's responsibility to acquaint each new project leader with the policies and procedures outlined in the Handbook and to ensure that the project outline is typed in accordance with the required format and that it meets the requirements of a good project before it is submitted for review.

After the project proposal has been reviewed within the department and approved by the department head, seven copies of the project outline are submitted to the Director's Office. Project Form 3 (Project Proposal Submission Form) included on the next page gives the essential administrative information that must accompany each copy of the project proposal transmitted to the Director's Office.

After a preliminary review and approval in principle by the Director's Office, the outline is referred to a Project Review Committee. This Committee consists of a representative from the Director's Office, three department heads appointed by the Director for a 3-year staggered term

Justification. This section should specifically state what new knowledge this project will endeavor to provide. It should be a summary of all the considerations that led to selection of this particular problem for study. It is not necessary to refer to the economic importance of the crop, insect, or disease selected for study. The project should be justified by the problem rather than the number of dollars that the crop contributes to state income. The use of intensifiers such as "It is imperative that. . .", "There is a desperate need for. . .", or "It is of the utmost importance that. . .", should be avoided. Instead, statements should be objective and factual, and positively worded. In most cases literature citations should not be included in this section.

Procedures. The procedures should be numbered to correspond with each numbered objective. The techniques or procedures that are to be used to reach each objective should be set forth in sufficient detail to show how the study is to be conducted. This section should indicate in a chronological order how research problems will be investigated.

Each procedure should be written in sufficient detail to enable any person with experience and training equivalent to that of the project leader to initiate and conduct the research under an orderly work plan. Such information may include a listing of the location of field experiments, assignments of responsibilities for various segments of cooperative projects, and experimental designs and procedures to be used. Use of personal pronouns should be avoided as much as possible.

Literature Cited. Literature cited should be included on the last page(s) of the outline and should conform to the style used by the major journals representing the project leader's discipline.

Citations of literature are organized in alphabetical order of the senior author and numbered accordingly. The number appearing before the name or names of authors is the citation key in the text. Unpublished data cannot be cited. When unpublished data are referred to, the source of information should be indicated either by parenthesis or footnote.

and three other scientists appointed by the Associate Director to serve as technical reviewers for each project. Names suggested by the department head on the Project Proposal Form are considered in the selection of technical reviewers. These reviewers are selected for reasons of particular competence relative to the project being reviewed, and they may be faculty members who are not in the Agricultural Experiment Station System.

Upon request of the project leader, the technical reviewers may be selected early enough to assist the project leader in developing the project and in preparing the outline. Otherwise, they are selected at the time the outline is submitted to the Project Review Committee. However prior to the time of the formal review, the project leader should obtain comments and suggestions from each technical reviewer after they have had an opportunity to review the project outline.

Reviews are scheduled by the Director's Office as soon as convenient (usually within 2 weeks) following receipt of the outline. The project leader meets with the Committee

PROJECT PROPOSAL SUBMISSION FORM

ALABAMA AGRICULTURAL EXPERIMENT STATION
AUBURN UNIVERSITY

TITLE OF PROPOSED PROJECT: *(Complete title)*

PRINCIPAL INVESTIGATOR(S): *(List all investigators)*

(Check appropriate classification)
TYPE OF PROJECT: New; Revised; Other: _____

PROJECT THIS REPLACES (if any): Project No. _____

Title: *(Complete if applicable)*

PROPOSED PROJECT REVIEWED & APPROVED BY FOLLOWING SCIENTISTS:

(Should be reviewed by at least three competent scientists)

OTHER TECHNICAL REVIEWERS SUGGESTED TO SERVE ON PROJECT REVIEW COMMITTEE:

(Indicate at least three qualified scientists on campus)

DESIRED STARTING DATE: *(Usually January 1 or July 1)*

BUDGET INFORMATION: Expected Annual Budget to be Allocated to Project: \$ *(Annual Amount)*
(Check appropriate funds)

FUND SOURCE(S): Hatch; State; McIntire-Stennis; Grant; Other: _____

A CRIS RETRIEVAL WAS UTILIZED? Yes; No.

REMARKS: *(Give additional comments that may be helpful to the Director
or the Review Committee)*

DATE SUBMITTED: _____

APPROVED BY: _____

(Dept. Head's Signature)

CSRS 4
7-73

U.S. DEPARTMENT OF AGRICULTURE
COOPERATIVE STATE RESEARCH SERVICE
WASHINGTON, D.C. 20250

INSTITUTION

Alabama Agricultural Experiment Station

PROJECT NUMBER (if known)

(To be completed by Director's Office)

PROTECTION OF HUMAN SUBJECTS

STATEMENT OF POLICY. Safeguarding the rights and welfare of human subjects involved in activities supported by the Cooperative State Research Service is the responsibility of the institution to which support is provided. In order to provide for the adequate discharge of this responsibility, USDA policy requires a formal assurance that appropriate committees in each institution will carry out both initial review of proposals, and continuing review of supported projects. The Department also requires certification of such reviews. Procedures which meet DHEW requirements will meet USDA requirements (*Secretary's Memorandum No. 1755*).

1. TITLE OF PROJECT

(Give Complete Title)

2. PRINCIPAL INVESTIGATOR

(List Project Leader Only)

3. CHECK ONE OF THE FOLLOWING STATEMENTS

(Check Appropriate Box)

- A. This project does not include activities involving human subjects.
- B. This project includes activities involving human subjects. Our institutional committee reviewed and approved it on _____, in accordance with our assurance approved by CSRS and/or DHEW. The project will be subject to continuing review as provided for in that assurance.
- C. This project, which includes activities involving human subjects, is pending review by an institutional committee as provided by our assurance. Certification of completion of the review will be provided as soon as possible. (*This certification will be in the form indicated in B., above, identifying the project by title and project number.*)
- D. This project includes activities involving human subjects, but this institution does not have on file with DHEW or CSRS the required assurance of compliance on protection of human subjects of research.

SIGNATURE AND TITLE OF OFFICIAL SIGNING PROJECT

Director, Agricultural Experiment Sta.

DATE

Day, Month, Year

| U. S. DEPARTMENT OF AGRICULTURE RESEARCH WORK UNIT/PROJECT DESCRIPTION - RESEARCH RESUME U. S. DEPT. OF AGRICULTURE, STATE AGRICULTURAL EXPERIMENT STATIONS AND OTHER INSTITUTIONS | | | | DATE (Day, Month, Year) | | | | | | | | | | | | | |
|--|--|----------------|--|---|--|--|--|--|--|--|--|----------------|--|-------|--|--------------|--|
| 1 ACCESSION NO. | | | | 2 AGENCY IDENTIFICATION NO. | | 5 WORK UNIT/PROJECT NO. | | 6 STATUS <i>X appropriate box</i> | | | | | | | | | |
| <i>Leave blank,</i> | | | | <i>filled in by CSRS</i> | | <i>Alabama (add assigned proj. number, if known)</i> | | NEW <input type="checkbox"/> A EXTEN-DED <input type="checkbox"/> B REVISED <input type="checkbox"/> C DISCON-TINUED <input type="checkbox"/> D TERM-INATED <input type="checkbox"/> E PENDING <input type="checkbox"/> F | | | | | | | | | |
| 7 TITLE | | | | | | | | | | | | | | | | | |
| <i>Maximum 100 characters, including letter, symbols, and spaces; don't use "research on", "investigation of", etc.</i> | | | | | | | | | | | | | | | | | |
| 8 PERFORMING ORGANIZATION | | | | 13 RESPONSIBLE ORGANIZATION | | | | | | | | | | | | | |
| <i>Department Designation</i> | | | | <i>Alabama Agricultural Experiment Station Auburn University</i> | | | | | | | | | | | | | |
| CITY | | STATE/COUNTRY | | ZIP CODE | | CONG. DISTRICT | | CITY | | 14 STATE | | ZIP CODE | | | | | |
| <i>Auburn</i> | | <i>Alabama</i> | | <i>36830</i> | | | | <i>Auburn</i> | | <i>Alabama</i> | | <i>36830</i> | | | | | |
| 12 INVESTIGATOR NAME(S) (Last name first) | | | | SOC. SEC. NUMBER(S) | | 15 RESPONSIBLE INDIVIDUAL (Last name first) | | | | | | | | | | | |
| <i>Project leaders (not more than 3 names)</i> | | | | <i>For each person listed</i> | | <i>Rouse, R. Dennis</i> | | | | | | | | | | | |
| | | | | | | 16 RESEARCH LOCATION ON CAMPUS | | | | | | | | | | | |
| | | | | | | YES <input type="checkbox"/> A NO <input type="checkbox"/> B <i>check appropriate box</i> | | | | | | | | | | | |
| PROJECT TYPE | | | | CONTRACTS, GRANTS AND COOPERATIVE AGREEMENTS | | | | | | | | | | | | | |
| 17 FOR USDA USE | | | | 18-1 FOR STATE USE | | 18-2 GRANT AUTHORITY | | 18-3 DISP OF EQUIP. | | 18-4 CONTR/GR/AGMT. NO. | | 19 FACE AMOUNT | | 20 FY | | 95 TOTAL SMY | |
| CON-TRACT <input type="checkbox"/> A GRANT <input type="checkbox"/> B COOP. AGMT. <input type="checkbox"/> C IN-HOUSE <input type="checkbox"/> D | | | | <i>X appropriate box</i> MCINTIRE <input type="checkbox"/> H STENNIS <input type="checkbox"/> M STATE <input type="checkbox"/> S | | PL-89-108 <input type="checkbox"/> A PL-85-034 <input type="checkbox"/> B | | NONE PUR-CHASED <input type="checkbox"/> 1 RE-VERTS TO GOV'T <input type="checkbox"/> 2 RE-TAINED <input type="checkbox"/> 3 | | PL 480 FUNDS <input type="checkbox"/> A <input type="checkbox"/> K | | | | | | | |
| 21 FACILITIES | | | | 22-23 REGIONAL PROJECT NO. | | | | | | | | | | | | | |
| Check appropriate box, as to work location, usually D. FEDERALLY OWNED <input type="checkbox"/> A FEDERALLY LEASED <input type="checkbox"/> B COMBINED <input type="checkbox"/> C STATE <input type="checkbox"/> D OTHER <input type="checkbox"/> E | | | | Leave blank unless contributing to regional project. | | | | | | | | | | | | | |
| 24 OBJECTIVES | | | | 25 APPROACH (Use space needed for "24 OBJECTIVES", then indicate "25 APPROACH") | | | | | | | | | | | | | |

Try to keep fields 24 and 25 within 800 spaces (10 lines of 80-spaces each, which will leave you a maximum amount of space for reporting research progress later.

24. For Objectives, a numerical listing is preferred. Keep short, and readily comprehensible. Place emphasis on the concepts to be investigated.

25. APPROACH. Develop a descriptive statement of the general methods and procedures that will be followed. Avoid extreme details, particularly on routine or commonly accepted research practices. Peers should comprehend what is intended or anticipated in the research program.

27 KEYWORDS

Select primary words from title plus others that will help in cross-referencing, searching, and locating your research. Ten words or less preferred. Consult CRIS keyword bank.

| RECOMMENDED | | | APPROVED | | | CONCURRED | | |
|--|-------|------|-----------|-----------------|------|-----------|-------|------|
| SIGNATURE | TITLE | DATE | SIGNATURE | TITLE | DATE | SIGNATURE | TITLE | DATE |
| <i>Principal investigator</i> | | | | <i>Director</i> | | | | |
| <i>Department Head</i> | | | | | | | | |
| <i>Chairman Project Review Committee</i> | | | | | | | | |

| | | | | | | | | |
|--|--|--|--------------------------------|--|--|----------------------------------|--|--|
| CONCURRED (S & ES) <input type="checkbox"/> / APPROVED (CSRS) <input type="checkbox"/> | | | 30 TERMINATION (Day, Mo., Yr.) | | | DURATION (Mos.) | | |
| 28 AWARD DATE (Day, Mo., Yr.) | | | 29 START DATE (Day, Mo., Yr.) | | | 30 completion date | | |
| <i>Leave blank</i> | | | <i>When research to begin</i> | | | <i>Expected Number of months</i> | | |

| | |
|---|---|
| U. S. DEPARTMENT OF AGRICULTURE RESEARCH WORK UNIT/PROJECT DESCRIPTION - CLASSIFICATION OF RESEARCH U. S. DEPT. OF AGRICULTURE, STATE AGRICULTURAL EXPERIMENT STATIONS AND OTHER INSTITUTIONS | DATE <i>Date, Month, Year</i> <i>Date of preparation</i> |
|---|---|

| | | | |
|---------------------------------------|---|---|--|
| 1 ACCESSION NO. <i>Leave Blank</i> | AGENCY IDENTIFICATION NO. 2 <i>Leave Blank</i> 3 <i>Leave Blank</i> 4 <i>Leave Blank</i> | 5 WORK UNIT PROJECT NO. <i>Same as Field 5 on AD-416</i> | 31 HATCH MARKETING <i>Check appropriate box</i> YES <input type="checkbox"/> A NO <input type="checkbox"/> B |
|---------------------------------------|---|---|--|

| | | |
|-------------------|---------------------|-----------------------|
| 32 BASIC RESEARCH | 33 APPLIED RESEARCH | 34 DEVELOPMENT EFFORT |
|-------------------|---------------------|-----------------------|

Enter estimated percentage for each. (Sum of 32, 33 and 34 = 100%) %

CLASSIFICATION BY ACTIVITY, COMMODITY, SCIENCE, PROBLEM AREA AND PPBS CODES

| ACTIVITY | | COMMODITY | | SCIENCE | | PROBLEM AREA | PPBS | PRODUCT OF |
|----------|-------|--|-------|----------|-------|--------------|----------|--------------------------|
| (1) CODE | (2) % | (3) CODE | (4) % | (5) CODE | (6) % | (7) CODE | (8) CODE | (2) X (4) X (6) (9) % |
| 41 | 1. | Consult Manual for Preparing CRIS Forms for directions in completing this form. | | | | | | |
| 42 | | | | | | | | No entry |
| 43 | 2. | Use manual of Classification of Agricultural and Forestry Research Revision II (January 1973 for proper coding. For each project classify, Activity (1), Commodity (3) and Field of Science (5). | | | | | | in this |
| 44 | | | | | | | | column |
| 45 | 3. | Commodity coding is important. The listing of direct, closely related commodities is important. | | | | | | should be |
| 46 | | | | | | | | less than |
| 47 | | | | | | | | 10% |
| 48 | | | | | | | | |
| 49 | | | | | | | | |
| 50 | | For assistance, contact Chairman of Project Review Committee | | | | | | |
| 51 | | | | | | | | |
| 52 | | | | | | | | |

(Leave this column blank)

Apply a percentage figure to one or more SPECIAL CLASSIFICATION

| SPECIAL CLASSIFICATION | % | PESTICIDE CODE | % | WATER RESOURCES CODE | % |
|-------------------------------|---|----------------|---|----------------------|---|
| 55 Pollution related | | 68 Target I | | 73 | |
| 56 Health and medical related | | 69 Target II | | 74 | |
| 57 Tobacco-health related | | 70 Target III | | 75 | |
| 58 Weather related | | 71 Target IV | | 76 | |
| 59 Nuclear radiation related | | 72 Target V | | | |
| 60 Poverty area related | | | | | |
| 61 Natural beauty related | | | | | |

| | |
|---|--|
| 79 COOPERATORS USDA <input type="checkbox"/> A OTHER FEDERAL AGENCIES <input type="checkbox"/> B INDUSTRY AND OTHER <input type="checkbox"/> C STATE <input type="checkbox"/> D | COOPERATING DEPARTMENT WITHIN STATE PERFORMING INSTITUTION <i>List</i> |
| 83 REPORTING DEPARTMENT WITHIN STATE PERFORMING INSTITUTION | 80 |
| | 81 |
| | 82 |

for the review and the department head may attend at his discretion unless especially requested.

In evaluating the proposed research outline, the Project Review Committee considers the following:

1. Will this research make a significant contribution to the needs of the state and the responsibilities of the department and the Agricultural Experiment Station?
2. Does the research proposed make the best use of the project leader's talents and interests?
3. Does the project outline describe research that can be accomplished within the time specified using the manpower, equipment, and funds expected to be available?
4. Will execution of the project as outlined contribute to the professional growth of the project leader and to the prestige of the Agricultural Experiment Station and the University?
5. Does the project outline present a significant problem and an approach of sufficient quality that the results obtained will be worthy of a professional publication?
6. Is the project outline well-written and editorially correct? Every effort should be made to handle editorial problems outside the scheduled review session so that priority may be given to evaluating the quality of the proposed research during the review.

The Project Review Committee may recommend a major revision in the project proposal. In this event, the project leader should prepare another outline following the suggestions of the Project Review Committee and resubmit it through the department head to the Director who will schedule another project review. It is expected that the project leader will consult with the members of the Project Review Committee while rewriting the outline and prior to resubmission to the Director.

If the Project Review Committee recommends approval, or approval with relatively minor revisions, the author is expected to incorporate the necessary changes into the final outline. After the department head approves the final outline, the project leader should arrange a conference with the chairman of the Project Review Committee to discuss the changes and to make sure that they are in accordance with the Committee recommendations.

After the author and chairman of the Project Review Committee reach agreement on the changes, the author

should have the final copy typed. This copy should be single-spaced with double spaces between paragraphs. Three copies of the approved revision, plus CRIS Forms 4, 416, and 417 (pages 12, 13 and 14) should be returned to the chairman of the Project Review Committee for final checking. If in order, the chairman will then forward these to the Director's Office for approval. The project leader will be responsible for making as many additional copies of the project outline as needed for himself and the department since no copies will be returned. If the project is to be supported with Hatch or McIntire-Stennis funds, it also must be approved by the Administrator of CSRS before funds can be expended on the project. Although the Administrator of CSRS is not responsible for approving State projects, the same review procedures will be followed and they will also be sent to CSRS and entered into the CRIS system for information purposes.

CRIS Forms 4, 416, and 417 must accompany the final copy of the project outline. Instructions for preparing these forms are contained in the Manual for Preparation of CRIS Forms (CSRS-OD-1258) and copies of this document are available in the department offices and in the Director's Office. Project leaders needing assistance in assigning activity, commodity, field of science and problem area codes are encouraged to consult with chairman of the Project Review Committee or the Director's Office. Each department has a copy of Revision II of Manual of Classification of Agricultural and Forestry Research. Special instructions for completing these forms are given on the sample forms included in this Handbook.

The project leader should submit to the chairman of the Project Review Committee a blank CRIS Form 416 containing only the signatures and dates of signing for the project leader and the department head. All the information needed for completion of CRIS Forms 4, 416, and 417 should be provided on worksheets to the chairman. Keep in mind that the total number of characters in fields 24, 25, and 85 cannot exceed 2,400. The Objectives and Approach may be abbreviated on this form but the description should relate the nature of the work and procedure to be followed. Complete sentences are not necessary.

Typing of CRIS Forms 4, 416, and 417 will be done in the Director's Office from the worksheets prepared by the project leader and approved by the chairman of the Project Review Committee. This will provide for greater uniformity and accuracy in preparation of forms sent to CSRS from the Station.

EXPERIMENT OUTLINES

Experiment outlines are detailed descriptions of experiments contemplated under a project. The suggested general format for an experiment outline is given on the next page. This form should be used for cooperative experiments between two or more departments or between a department and an outlying unit. There should be a copy for each cooperator and two copies for the Director's Office.

Experiment outlines are prepared by the project leader and reviewed within the department. If the work outlined involves cooperation between two or more departments or between a department and one or more of the outlying units of the Agricultural Experiment Station System, there

should be a section outlining responsibilities of each cooperator. Such an outline is necessary so that all persons connected with the experiment shall have a clear understanding of such things as test procedure, time schedules, plot layout, treatments, publications, and responsibilities of providing labor, machinery, materials, and supervision. These experiment outlines are sent to the Director's Office for final approval. Where no cooperation outside the department is involved, an outline should be prepared and approved by the department head and retained within the department without being approved by the Director. However, an experiment outline is not needed if the project outline is sufficiently detailed that it can serve as an experiment outline.

EXPERIMENT OUTLINE
Alabama Agricultural
Experiment Station
Auburn University

Date Prepared

PROJECT NO. *Insert the number of the project of which the experiment is a part.*

TITLE: *Give title of the proposed cooperative experiment.*

DEPARTMENT(S) AND UNIT(S) INVOLVED:

LOCATION OF EXPERIMENTS:

OBJECTIVES: *List the specific objectives of the experiment.*

PROCEDURES: *Describe in detail the procedure and time schedule for each objective is to be accomplished. Field plans should be a part of the outline. It is recognized that at times plans cannot be prepared until the experiment is actually laid out in the field. In such cases a copy should always be provided the cooperator for attaching to the experiment outline. A copy should also be sent to the Records Clerk.*

RESPONSIBILITIES: *Describe in detail responsibilities of each cooperator under the following headings:*

- 1. Project leaders*
- 2. Cooperators*
- 3. Outlying unit personnel*

PUBLICATION: *Include any agreements pertaining to authorship of publications, use of data by superintendents in meetings on outlying units, or use of experiments in meetings.*

APPROVALS: *Provide space for signatures with dates of all Project leaders, cooperators, department heads, and the Director. All signatures should be affixed before the outline is sent to the Director's Office. Upon approval, the Director will keep one copy and will send a copy to the Records Clerk and will return the other copies to the department head for distribution.*

PROJECT REPORTS

A narrative Annual Report and an Annual Progress Report (CRIS Form 421) are required by the Director for each research project active during any portion of a calendar year.

Narrative Annual Report

Each project leader is required to prepare a narrative report on each project for which he is responsible. This Narrative Annual Report should provide a complete record of the research results obtained annually. Where field results are recorded at the substation and field record books, a reference can be made in the report to these data. A good rule of thumb is to record in the Narrative Annual Report all information that would be needed for another scientist of equal training to take over the project and publish the results in a scientific journal or station bulletin. This report should include summary tables of data with the project leader's interpretation of the data and his analysis of progress toward objectives of the project. The report should have a well indexed table of contents for easy reference.

The deadline for submission is established by the department head. To space the typing load throughout the year, the department head may establish deadlines for different projects at different times during the year. Copies of publications should not be included in the narrative report. If a project is supported by a grant which requires submission of detailed reports at regular intervals, copies of these may be submitted in lieu of the narrative report.

The department head is responsible for assembling the reports prepared by the project leaders. He will transmit them annually to the Director with a short summary of the activities, problems, and special accomplishments of the department during the calendar year. The reports, plus the summary, and one copy of each publication resulting from research in his department are to be indexed and bound into one or more volumes (prong-type binders.) The complete departmental report is due in the Director's Office by March 1 following the year of the report unless otherwise requested by the Director.

Annual Progress Report

A progress report is required each year for each approved project that is active during all or part of a calendar year. It

is to be prepared on CRIS Form 421 (page 18). These forms are sent to the project leader through the department head near the end of the reporting year with the project number, title, and fund typed in. Instructions for completing this form are given in the Manual for Preparation of CRIS Forms (SCRS-OD-1258) and a sample is included in this Handbook.

The report should cover the period from the date of the previous year's report to the date when the current report is prepared. The CRIS system permits a maximum of 2,400 characters, including letters, symbols, and spaces for the combined field 24, 25, and 85. Additional characters will not appear in printouts. The work of cooperating departments on one project should be combined in a single report and submitted by the lead department.

Reports of Research on Substations and Other Outlying Units

Project leaders who have cooperative experiments at any of the outlying units are responsible for turning in all the data they have collected at the outlying units to the Records Clerk in the Research Data Department. These data are turned into the Records Clerk even though they may be incorporated in the department's Narrative Annual Report. This should be done as soon as possible after the data are collected; do not wait for the end of the year. They can be turned in as raw data to the Records Clerk who will process them, return them to the project leader for checking, and be responsible for getting them typed in final form and filed in the appropriate records book.

Termination Reports

For each approved project, a "Project Termination Report" is required at the time of closing the project. This report is prepared on CRIS Form 421 (page 18). For 2 years after a project is terminated, a preprinted CRIS Form 421 will be sent each year for the purpose of adding publications published after termination. To assure accuracy in the permanent files of the Records Clerk, the clerk should be informed of all terminated cooperative experiments at outlying units as well as those temporarily inactive.

| FORM AD 421 (2-68) U.S. DEPARTMENT OF AGRICULTURE | | | | DATE (Day, Mo., Yr.) | |
|--|--|-------------------------|--------------------------------------|--|---|
| RESEARCH WORK UNIT PROJECT DESCRIPTION - PROGRESS REPORT | | | | | Preparation date |
| <small>U.S. DEPT. OF AGRICULTURE, STATE AGRICULTURAL EXPERIMENT STATIONS AND OTHER INSTITUTIONS</small> | | | | | |
| 1. ACCESSION NO. AGENCY IDENTIFICATION NO. | | 5 WORK UNIT PROJECT NO. | | 22-23 REG'L PROJ. NO. | 6 STATUS <small>(see instructions for applicable)</small> |
| Fields 1 through 12 ³ (except 6) will usually be preprinted by computer. However, if not, see instructions for same Fields on Guide for AD 416. | | | | <input type="checkbox"/> D | <input type="checkbox"/> E |
| 7 TITLE See Above | | | | | |
| 8 PERFORMING ORGANIZATION See Above. | | | 12 INVESTIGATOR NAME(S) See Above | | SOCIAL SECURITY NUMBER(S) |
| 84 PERIOD COVERED BY THIS REPORT (YR) (MO) (YR) (MO) Covers period since last report. | | | | | |
| 85 PROGRESS REPORT | | | | | |
| <p>Total of 1600 characters available providing Fields 24 and 25 (AD 416) do not exceed 800. If they exceed 800 the space available will be 2400 minus the number in both Fields 24 and 25.</p> <p>Report significant accomplishments with brief expression as to why the results are significant scientifically or practically. Statements should be good enough to appear without change in a published abstract.</p> <p>If too soon to report accomplishment, indicate status or stage of development of work.</p> <p>McIntire-Stennis projects - indicate number of graduate students associated with project.</p> <p>If termination report, cross out the word "Progress" in the Heading of this form and type "Termination" above and then enter the following in this location of Field 85:</p> <p style="text-align: right;">Actual Termination Date: _____ Month Day Year</p> | | | | | |
| 87 PUBLICATIONS | | | | 88 TOTAL OTHER PUBLICATIONS THIS PERIOD (NUMBER) | |
| <p>List up to 5 publications since last report. Include only those actually published. Do not include manuscripts. It is suggested that listings be in accordance with the University of Chicago Style Manual. For journal articles or publications of a series, the order is:</p> <p style="text-align: center;">Author(s) in caps Title Name of Journal (or series with name of issuing agency) Volume number, with date of issue in parentheses Page Numbers</p> | | | | | |
| KEYWORD BANK (Add, delete, or change as required) | | | | | |
| Keywords listed in Field 27, AD 416, will usually be preprinted by computer here. Add, delete or change as needed. | | | | | |
| 90 MAJOR ACHIEVEMENT ANTICIPATED IN MONTHS: | | | | APPROVED: | |
| (1-3) <input type="checkbox"/> A (4-6) <input type="checkbox"/> B (7-9) <input type="checkbox"/> C (10-12) <input type="checkbox"/> D (13-15) <input type="checkbox"/> E (16-18) <input type="checkbox"/> F OTHER <input type="checkbox"/> G | | | | Leave Field 90 Blank | |
| | | | | SIG. | TITLE Director |

PUBLICATION OF RESULTS

Publication of research results is as important as the experimentation. Each project leader is expected to publish his results promptly in a form best suited to serve the needs of the intended readers. Releases in mimeographed form, popular journals, newspapers, Highlights, or abstracts in proceedings are valuable as a means of immediate release but should not be considered as having met the obligation of publication.

Types of Publications

One of the prime responsibilities of the Agricultural Experiment Station is to ensure that current research findings are made available to those who can use them most effectively. In order to accomplish this, various types of publications are available to the project leader for disseminating his results. Project leaders are expected to publish in both the Agricultural Experiment Station series and in their professional society journals.

Station publications are designed to disseminate results to a wider range of researchers and to professional workers more rapidly than most society journals. They also permit the use of the color and varied format to meet the special needs of different groups. Journal articles receive greater national and international distribution and are important to the project leader and the Agricultural Experiment Station for establishing national recognition in a research area.

A summary of possible publication outlets and the nature of these publications follows:

JOURNAL ARTICLES. Researchers are encouraged to publish in their professional journals whenever possible. Manuscripts for submission to journals are subject to the same review and approval procedures as those proposed for publication in the Station Series. The author is responsible for ordering and distributing reprints. Reprints may be requisitioned against project funds.

STATION PUBLICATIONS. Six different regular series of Station publications are available to the project leader as publication outlets. They are described as follows:

Bulletins. The bulletin series is for reports of completed research at major stages of developments. The style of bulletins may range from technical to popular depending upon the nature of the study and the character of the results; however, they should be organized and presented so that it will be useful to fellow scientists, professional agricultural workers, and others to whom the publication may be of special interest.

Circulars. Results of a phase or entire project that is still active but has been underway sufficiently long to yield pertinent and reliable data should be published in the circular series. Circulars should follow the same style as bulletins.

Leaflets. The leaflet is used to report results from an active project that pertains to a single practice or problem. As a rule, leaflets are limited to 4 to 8 pages in length and are written in popular style.

Progress Reports. Preliminary results that are urgently needed, or results that have immediate value in connection with certain practices, may best be reported in the progress report series.

Highlights of Agricultural Research. Highlights is a quarterly publication of 16 pages, directed to farm and agri-business leaders and professional agricultural workers in Alabama. Articles for each issue are selected by an advisory committee from lists of suggestions submitted by staff members through department heads. The articles are one page in length. A staff member may suggest a topic and submit an article at any time during the year.

Highlights of Agricultural Research is designed to inform readers by:

1. Reporting important and significant results from segments or phases of long-term research.
2. Reporting important and significant results from current research.
3. Reporting progress and developments of recently begun research.
4. Reporting pertinent results from work done in the early years of the Station.
5. Presenting messages from the Administration when appropriate.
6. Reporting new and timely station publications.

The quarterly is not considered as an outlet for technical information nor a substitute for technical papers. It is not a dumping ground for miscellaneous writings. The author is responsible for ordering and distributing reprints.

Departmental Series. The Departmental Series provides an outlet for publication of research results and other information not appropriate for inclusion in currently established publications of the Experiment Station. This series is for limited or special distribution recommended by the Department. They are mimeographed, multilithed, or printed on 8½ x 11 inch stock and the cost of publication is borne by the department.

Miscellaneous Articles. Sometimes articles are prepared for publication in farm magazines or popular publications. The author receives any payment that is made by the magazine. These articles are also subject to the same review and approval procedures as those proposed for publication in the Station Series. Abstracts of papers to be presented at scientific meetings should be approved by the department head, the Station Editor and the Director.

Research workers are encouraged to submit to the Research Information Department brief statements of research results for use by the Editor in preparing news releases and material for use by farm magazines. Brief statements of research results and tabular data may also be mimeographed for handouts at meetings. These statements should be cleared through the department head, (need not be reviewed by a reading committee), edited by the Station Editor, and approved by the Director prior to distribution.

Manuscripts of talks given at commercial trade conferences are normally not edited by the Station Editor.

Preparation of Manuscripts

Manuscripts to be submitted for publication by the Agricultural Experiment Station as bulletins, circulars, and leaflets, and as articles for Highlights of Agricultural Research must be typed (ribbon copy) with an elite type typewriter on the special manuscript paper. (page 20).

62
CHARACTERS (BUL-
LETINS, CIRCULARS)

74
CHARACTERS (LEAFLETS,
HIGHLIGHTS ARTICLES)

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The manuscript paper is a preprinted form (AES MS FORM 1) that provides left and right hand marginal guides—lines 62 characters wide for bulletins and circulars, and lines 74 characters wide for leaflets and Highlight articles. The manuscript paper may be obtained by the departments in ream lots from the University Book Store. Manuscripts submitted for publication as Station progress reports should be typed on plain bond with lines no wider than 48 characters, elite type.

All manuscripts should be submitted in triplicate. Upon approval by the Director, one copy will be forwarded by the Station Editor to the Cooperative Extension Service and the others will be returned to the author with the comments of the Editor and the Director.

Manuscript Review

All Station publications are designed to permit reporting of research in a concise, readable manner. Researchers are discouraged from using the “specialized jargon” found in some scientific journals or from giving recommendations for various management practices found in Extension publications. Agricultural Experiment Station publications are designed to meet the special needs of researchers and users of the research information. The Station is a tax supported research organization and it must present clear evidence of meaningful results in order to continue obtaining the support required to meet the research needs of agricultural producers and the consuming public. The author should submit the manuscripts for any proposed publications to his department head along with the Manuscript Approval Sheet (page 22) which has the required handling procedures printed on the back.

All manuscripts, regardless of where the results are to be published, must pass through a review by:

1. A departmental committee of scientists.

The author submits the manuscript to the department head who will determine whether the manuscript is acceptable to be referred to a departmental review committee. The department head may return the manuscript to the author for checking, re-writing or holding until more data are available. If the manuscript is acceptable by the department head, he will designate at least three scientists within the department to review the manuscript.

The primary role of the departmental review committee is to aid the author as colleagues in presenting results of his research in a form to best assure acceptance in the scientific community and readability by those for whom the publication is intended. The committee may also include

persons outside the department who have a special competence or interest in the subject. The reviewers should concern themselves with scientific reliability, not routine editorial work, although they should call obvious errors to the attention of the author.

2. The author's department head.

Although the department head is also concerned with content, he appoints a departmental committee to review for subject matter and his review will primarily be for information, logic, and consistency of reporting.

3. The Station Editor.

The Station Editor has primary responsibility in manuscript review for layout, style, grammar, overall readability, and general conformation to Experiment Station standards. Project leaders should call on the Editor for assistance in photography and art work and for assistance in releasing timely news about the research during the course of the research. Authors are also urged to consult with the Editor as they begin to plan the publication and as they condense their data into tables, graphs, and charts.

Agricultural Experiment Station publications have no page limitations, but only relevant data should be reported. The data should be organized and presented in such a manner that fellow scientists, professional agricultural workers, and others with a special interest in the subject will find useful. Most detailed data should be reported as graphs or condensed tables. If it is necessary to include large amounts of data, they should appear in an appendix.

4. The Station Director

Since the Experiment Station Director is responsible for the entire research program, all manuscripts must meet his approval before they can be published.

After the Station Editor has reviewed a manuscript and it has been approved by the Director, the author is expected to revise the manuscript in line with the suggestions of the Director and Editor or to clear with the Editor any suggested revisions with which the author may disagree.

The Editor provides the Cooperative Extension Service with a copy of all approved manuscripts prior to their publication.

The Agricultural Experiment Station review system is intended to be as rigorous as that for any referred journal. The style of writing must be acceptable to fellow scientists but yet readable and understandable to professional workers and farmers who have competence in the subject matter area.

MANUSCRIPT APPROVAL SHEET

ALABAMA AGRICULTURAL EXPERIMENT STATION
Auburn University

1. Title: _____
2. Author: _____
3. Submitted for Approval as: () Progress Report, () Leaflet, () Circular, () Bulletin,
() Technical Article to be published in _____
(Name of Journal)
() other, _____
(Specify)
4. Manuscript based on results from Project No. _____
5. Purpose of manuscript and readership to which it is addressed. _____

6. Submitted to Department Head on: _____
7. Referred to Reading Committee on: _____
8. Approved by Reading Committee:
 - a. _____ (Signature) _____ (Date)
 - b. _____ (Signature) _____ (Date)
 - c. _____ (Signature) _____ (Date)
 - d. _____ (Signature) _____ (Date)
 - e. _____ (Signature) _____ (Date)
9. Approved by Department Head: _____ (Signature) _____ (Date)
10. Approved for publication:

(Station Editor) (Date) (Dean and Director) (Date)

(The Station Editor will fill in the blanks below)

Published in: _____

Vol. _____ Pages _____ Date _____