



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# **JOURNAL OF FOOD DISTRIBUTION RESEARCH**

**BIBLIOGRAPHY**

of

**Food Distribution Research**

**projects**

in Process

**1969**

**FOOD DISTRIBUTION RESEARCH SOCIETY**

**Volume I,**

**No. 2**



# Food Distribution Research Society Journal Volume 1, Issue 2

## BIBLIOGRAPHY OF FOOD DISTRIBUTION RESEARCH PROJECTS IN PROCESS - 1969

### TABLE OF CONTENTS

	<u>Page</u>
Forward . . . . .	i i i
General Features of the Science Information Exchange Services . . . . .	i v
Output Services and Fees of Science Information Exchange . . . . .	v
How to Use this Listing and the Science Information Exchange Service . . . . . Examples of SIE Printout. . . . . Request for Service Form to be Used. . . . .	v i v i i i x
Research Projects in Process Listed Alphabetically by State or Nation . . . . .	1 - 148
How to Register Research With the Exchange. . . . . Guidelines for Completing Form to Register Research . . . . . Notice of Research Project Form . . . . .	149 150 151
Do You Have a Publication to Report?. . . . . Instructions for Completion of Technical Reports Form . . . . . Form for Reporting Technical Reports.. . . .	153 154 155
About the Food Distribution Research Society . . . . .	157
List of Publications of the Society. . . . .	159

Order From Food Distribution  
    Research Society  
    See Page 159

\$5.00

# *Food Distribution Research Society*

February, 1970

Members and Friends of the Society:

Without question, the need for a clearing house for research activities in the food distribution area has long been recognized by many of the members of the Food Distribution Society.

Consequently Harry F. Krueckebergs' arrangement with the Science Information Exchange is welcomed indeed. The resulting bibliography of Food Distribution Research Projects in Progress is a splendid opportunity for the researcher to become aware of projects both underway and already completed in an area of work he contemplates.

But the real value of this entire project is based on contributions of members and others in the research areas of their respective research studies. Thus it is my sincere hope that the membership will support this excellent service.



Eric C. Oesterle  
President

## FORWARD

Bibliography of Food Distribution Research Projects in Progress, Volume I, 1969, is one of several publications by the Food Distribution Research Society to its members as a contribution to the "Science" of Food Distribution research.

How can I tell what research projects other food distribution researchers are conducting? Who is conducting research on my particular problem? How can I avoid duplication of effort in conducting a research project? Where can I find some information applicable to my specific problem? When can I expect some results on a specific project?

These are questions which have motivated the Food Distribution Research Society to publish this volume listing research projects underway in food distribution. Usually the projects listed are those financed by public funds or conducted by public institutions.

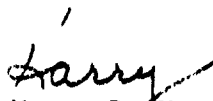
The content of the listing is limited to those projects related to Food Distribution which are in progress, and which will be completed at the approximate time also listed. After a project is completed, it is no longer inventoried by the Science Information Exchange and consequently is no longer found in this publication.

If a project is not listed in subsequent volumes presumably it has been completed and is being published or has been published. Most such reports are filed with the National Agricultural Library and listed the Library's bibliographies. This publication provides the forms used to list research projects with the Science Information Exchange. It also includes the forms used to list a completed research project report or publication with the National Agricultural Library.

The Society urges all members to list their research projects and reports with the SIE and the National Agricultural Library so that all members may benefit.

With the full cooperation of the Science Information Exchange of the Smithsonian Institution, the information contained in this volume is made available by the Society.

The actual benefit to you depends on your individual use of the Exchange and the National Agricultural Library. How much or how little will depend on how much research is being conducted in a particular area and your interest in it.

  
Harry F. Krueckeberg,  
Vice President, Research

## GENERAL FEATURES OF THE SCIENCE INFORMATION EXCHANGE

The Science Information Exchange is a National Registry of Research in Progress. The Exchange registers research proposals and projects by receiving more than 100,000 unpublished summaries each year, reporting who is planning what research, where, and how supported. These summaries are provided on a voluntary basis by Federal departments and agencies, also hundreds of state, university, private granting and commercial organizations.

Inquiries are answered regarding information about research planned or in progress. SIE's approach allows it to serve both the specific needs of individual projects and the broad requirements of research program reviews. This role applies to all echelons of management responsibilities, from the bench level scientist managing a single project, to the scientist-administrator responsible for multimillion dollar programs covering thousands of projects.

The capability of the SIE system to select and retrieve any combination of information elements has led to a wide variety of information products and services. The 55,000 requests for information answered last year ranged from very simple ones to large computer listings, compilations and tabulations of thousands of selected information elements and printed catalogs covering all current research in broad subject fields.

SIE bridges the gap between the start of projects and their subsequent publication one to several years later, thus complementing the work of libraries and documentation centers that deal with the published results of research. Through it, program strengths, weaknesses and overlap or duplication can be spotted before rather than after the fact and coordination of concurrent efforts can be achieved.

SIE's scope embraces all basic and applied fields of the life, social, physical, and engineering sciences. Special emphasis is placed on recognition of interdisciplinary relationships. Through the employment of a varied and competent staff of professional scientists and engineers SIE can meet new and unanticipated requirements for the synthesizing of information from previously unrelated fields. In the fully computerized process of storing and retrieving scientific and engineering information, appropriate research specialists at SIE act as intermediaries. No special vocabularies, key words, thesauri need be used by the initiator - just the technical language of his own discipline.

The keynote of the SIE system is flexibility for meeting new demands combined with efficient production capability conditioned by over 20 years of actual demand and service to the national research management community. This year approximately one million reports on research currently underway will be selected and distributed to meet the specific information needs of thousands of users.

Fee schedule for commonly used products is indicated below. Special compilations, catalogs and historical file searches are individually priced.

A. Subject Content Searches - Comparable to a bibliographic subject search. \$60.00 screened; \*\*\$30.00 unscreened. Includes up to 100 Notices of Research Projects. \$5.00 for each additional 100 documents or fraction thereof. (Average number of documents per question was 60 in recent years).

B. Administrative Content Searches - Retrieval of all records related to a given country, state, institution, or department within an institution. \$30.00 per search. Includes up to 100 records. Five dollars for each additional 100 documents or fraction thereof.

C. Combined Retrieval of Subject and Administrative Information - Retrieval of all records pertinent to a given subject and location as described above. \$30.00 to \$60.00 per question depending on whether subject material is to be screened or unscreened.

D. Multiple Requests at the Same Time - If requests for more than one search are made at the same time from one source, special rates are applicable for unscreened requests under Categories A, B and C above. Costs are \$30.00 for the first search and \$15.00 for each succeeding one. For example, the cost of 5 searches requested at the same time would be \$90.00 compared to the single rate of \$150.00 for searches made on separate occasions. Requests must come from a single requester in order to be eligible for these special rates. Requests for screened searches cannot be accepted at these rates. Document costs in excess of 100 for each search will still prevail.

E. Selective Dissemination - Quarterly mailing of research notices based on profile of requesters interest. \$60.00 for initial mailing; \$30.00 per quarter thereafter. Includes up to 100 documents per quarter; \$5.00 for each additional 100 documents or fraction thereof over the first 100.

F. Investigator Search - A request for research associated with a given name (investigator). \$3.00 per name searched (\$9.00 minimum).

G. Accession Number Retrieval - A request for a research project identified by an agency or SIE number. \$1.00 per number searched (\$5.00 minimum).

H. Standard Computer Tabulations and Listings - Selection of material to be retrieved is made under A, B or C above and cost for this search is either \$30.00 or \$60.00 as noted above. Existing programs are available which will list all projects based on any selection criteria, in various sequences, with appropriate totals and subtotals. Data shown for each project may include the supporting organization, principal investigator, agency contract and/or accession numbers, performing organization, location (city and state), school, department, project title, and funding (where authorized for release). Output format as tabulation is \$120.00 plus 35¢ per computer page. Corresponding Notices of projects are available if desired at \$5.00 per 100 or each fraction thereof over the first 100.

\*If at some future date there are price changes users will be advised prior to processing of their requests.

\*\*To assure exact match between the question asked and the material retrieved, it is usually necessary to review the outgoing package of Notices. This review is done by the scientific staff and consists in removal of non-pertinent information. Project descriptions of borderline and peripheral interest would usually be left in the package and identified as such.



## GENERAL SIGNIFICANCE OF SIE COMPILATIONS

Compilations of data from Science Information Exchange (SIE) are subject to some inherent limitations and exceptions. Wherever possible, SIE will note and estimate the significance of these conditions as they apply to each compilation. There are also the general limitations noted below that should be recognized in order to avoid possible misinterpretation, confusion, and contradictory conclusions, when comparing these data with other sources.

SIE is an inventory of research tasks, where "task" means a small uniquely identified unit of research work.

The dollar values recorded by SIE are intended only to show the annual level of effort (or support) for each individual task.

Sums, totals, and compilations of SIE's research task records are not designed to reflect budget data. Therefore, SIE dollars, sums and totals cannot be reconciled with budgets that are essentially inventories of total dollars. The latter allocates all R&D dollars to specified categories. SIE counts only those dollars that are annually allocated to a selected list of items identified as basic and applied research tasks. This does not include many categories of overhead, general support, construction, fellowships, etc.

SIE dollar sums and totals can be used as a comparative index of relative emphasis and distribution among agencies or recipients or geographical areas of subject fields, etc. for one or a series of years, if the inherent limitations and exceptions are clearly recognized in each case and applied to the derivation of conclusions. For example:

- 1) SIE receives no research records classified for national security.
- 2) SIE receives no dollar values for most inhouse research tasks.
- 3) At this time, SIE receives few records of development projects and programs.

In comparing SIE data with other sources, it should be noted that many projects and tasks are on the borderline between applied research, advanced technology, and development. The decision for inclusion or exclusion is arbitrary, and may differ among agencies, and by individuals. These may total fairly large sums, and corresponding discrepancies.

- 4) SIE focuses on the research task, per se. Contracts, grants and funds allocated to general research support, such as interdisciplinary laboratories, institutional grants, etc. that are not related to specific research tasks may not come to SIE or may be accounted differently.
- 5) SIE registers research tasks according to the fiscal year in which the research began. This may or may not agree with the fiscal year in which the funds were budgeted or obligated.
- 6) SIE records the annual cost (level of effort) for a grant or contract that may extend over several years. Some agencies assign the budget cost of a single three-year grant to one fiscal year in compiling their reports.
- 7) SIE can only report on tasks that have been registered by the participating agencies. All Federal agencies do not register their entire programs so that SIE can not guarantee complete coverage for any given program, subject or agency.
- 8) The SIE collection has grown rapidly over the years as agencies have initiated and/or increased their registration. Comparative trends over a series of years in some categories may reflect the growth of the Exchange rather than changing emphasis in the research area or program.
- 9) With any compilation, SIE will note and estimate the significance of these limitations as far as possible, if requested to do so.

Some General Information  
Research Project Information Exchange  
Courtesy of Your  
FOOD DISTRIBUTION RESEARCH SOCIETY

1. How do I cooperate with the Society in providing the project information that is desired?

The blue folder contains a form which is filled out by the principal investigator on a project. This form is titled "Notice of Research Project." The guidelines for completing this form are also included in the folder.

Additional blank copies of the "Notice" are available from the Society Vice President for Research, or directly from the Science Information Exchange.

After completing a notice for each project, send them directly to:

Science Information Exchange  
300 Madison National Bank Building  
1730 M Street, N.W.  
Washington, D. C. 20036

2. What projects should I report?

Please register any current research "task" which in anyway will be of service to the food industry. By "task" is meant a small uniquely identified unit of research work.

3. How can I use the SIE to help me in my own research efforts?

The services which SIE can provide various individuals and organizations are listed on a sheet included in the blue folder. The list is quite long. Simply write to the same address as in number 1 or write directly to:

Mrs. Claire D. Jaffe  
Agricultural and Applied  
Biological Sciences Branch  
Life Sciences Division  
Smithsonian Institution  
209 Madison National Bank Building  
1730 M Street, N.W.  
Washington, D. C. 20036

HOW TO USE THIS LISTING AND THE SCIENCE  
INFORMATION EXCHANGE SERVICE

After you have found a project or several projects for which you desire information several alternatives are available to you.

First, information is available from S. I. E. in the form of a "Notice of Research Project," two examples of which follow on the next pages.

These forms are available and can be obtained by preparing a "Request for Services" form, or by writing or telephoning the Exchange stating the specific research or problem on which information is desired. The Exchange will promptly forward pertinent Notices of Research Projects. A concise definition of the problem will insure the best selection of information. A sample copy of "Request for Services" form is enclosed. Additional forms are available upon request from S. I. E.

Second, the listing provides you with the name and address or the research institution and project director or other personnel. More information on a project would probably be available by writing a note to the individual involved with the project.

NOT FOR PUBLICATION OR  
PUBLICATION REFERENCE

SCIENCE INFORMATION EXCHANGE  
SMITHSONIAN INSTITUTION  
1730 M STREET, N.W. PHONE 202-381-8511  
WASHINGTON, D.C. 20036

GY-16566

## NOTICE OF RESEARCH PROJECT

REPORTING AGENCY:

AGRICULTURE DEPARTMENT  
AGRICULTURAL RESEARCH SERVICE  
TRANSPORTATION & FACIL. DIV.

AGENCY'S NUMBER(S):

OC16566  
TF5-046B

TITLE OF PROJECT:

DEVELOPMENT OF OPERATIONAL STANDARDS FOR RETAIL STORES

PRINCIPAL INVESTIGATOR, ASSOCIATES AND DEPARTMENT/SPECIALTY:

E MARION

RECIPIENT INSTITUTION:

OHIO AGRIC. RES. & DEV. CENTER  
WCCSTER, OHIO 44691

PERIOD FOR THIS NRPI

7/68 TO 6/69  
FY69 FUNDS UNKNOWN

SUMMARY OF PROJECT:

**OBJECTIVE:** Develop data processing models of store operations for the retail food store produce and meat departments.

**APPROACH:** Update program material in the USDA produce program. For the meat program, merge into the existing Ohio State meat model as much of the USDA data as possible in order to establish standards. Data to be included are yield and cut out of various size and grade meat carcasses, work standards for various tasks, materials use and costs, display space and shelf life data. Prepare models to accept data in card, tape or similar form so that the model can be utilized by existing company data systems. Test the models against actual store operations and company records in such areas as budgeting and scheduling; operational costs such as wages, shrinkage, inventory turnover, space use, packaging costs and sales.

**PROGRESS:** Plans to reprogram the existing produce model of retail store operations and to conduct tests of these standards were delayed but are now being developed into a working program on modern computer components. Tests with actual store data will begin this coming year. Also meat standard data collected by USDA and Ohio State on cutting, wrapping, weighing and pricing retail cuts of meat are being merged by Ohio State to provide industry with more complete operating standards.

**NOTICE OF RESEARCH PROJECT  
SCIENCE INFORMATION EXCHANGE  
SMITHSONIAN INSTITUTION**

NOT FOR PUBLICATION OR  
PUBLICATION REFERENCE

SIE NO.

GTB 517

AGENCY NO.

**SUPPORTING AGENCY:** Office of Economic Opportunity, Washington

**TITLE OF PROJECT:** Harlem Development Project - Columbia University (The research at Columbia is part of a larger project including several research and action components located elsewhere, supported by OEO Demonstration Grant 8730 A/G)

Give names, departments, and official titles of PRINCIPAL INVESTIGATORS and ALL OTHER PROFESSIONAL PERSONNEL engaged on the project.

Stanislaw H. Wellisz, Project Director and Professor (Dept. Economics), Graduate School  
Columbia University James Heilbrun, Director of Research for project and Assistant  
Professor of Economics, Columbia University  
Roger Alcaly, Associate Project Director and Assistant Professor of Economics, Columbia University

**NAME AND ADDRESS OF INSTITUTION:**

Columbia University, New York, N. Y. 10027

**SUMMARY OF PROPOSED WORK** - (200 words or less.) - In the Science Information Exchange summaries of work in progress are exchanged with government and private agencies supporting research, and are forwarded to investigators who request such information. Your summary is to be used for these purposes. **DO NOT REGISTER A PROJECT SUPPORTED BY A FEDERAL AGENCY OR A**

**FOUNDATION IF YOU HAVE ALREADY REGISTERED SUCH A PROGRAM DURING THIS FISCAL YEAR.** The research is intended to support an action program, the purpose of which is to stimulate Negro-owned business and cooperative enterprises located in Harlem. Research at Columbia includes the following major projects:

1. A profile of businesses and jobs now located in Harlem, classified by type of business at a high level of detail. Comparison of this with a similarly detailed profile for a white middle-class control area.
2. A study of the cost and profitability of retail and service businesses in Harlem as compared with the control area. Cost ratios and rates of return will be compared by type of business and where possible by ethnic ownership.
3. An interview survey of Harlem business owners to learn additional details about the characteristics of owners and firms.
4. A comparative study of the rate of failure and the rate of starts of businesses by type of business in Harlem as compared with the control area.
5. A statistical study of differences in retail food prices between neighborhoods (including Harlem). The study investigates the hypothesis that significant differences exist between ghetto and non-ghetto food prices.
6. Analysis of trends in income levels and demographic characteristics of Harlem as compared with New York City whites and non-whites.
7. Analysis of employment, unemployment and underemployment in Harlem as compared with other communities.

17 SEP 1968	Period for this NRP			
	7-67 to 6-68			
	EO	YF	MO	YF
	Sub-group			

SIGNATURE OF  
PRINCIPAL INVESTIGATOR

*Stanislaw Wellisz*  
Stanislaw Wellisz

PROFESSIONAL SCHOOL  
(medical, graduate, etc.)

Workshop in Development Planning  
School of International Affairs.

**DATES OF CURRENT AUTHORIZATION (or fiscal year):**

**ANNUAL LEVEL OF EFFORT IN DOLLARS (Not released without authorization):**

## NOTICE OF RESEARCH PROJECT

## SUPPORTING AGENCY:

VETERANS ADMINISTRATION  
MEDICINE & SURGERY DEPARTMENT

## AGENCY'S NUMBER(S):

M-5-65

CODE AA

## TITLE OF PROJECT:

EFFICIENCY OF THE ENZYME PINGUINAIN AS A MEAT TENDERIZER

## PRINCIPAL INVESTIGATOR, ASSOCIATES AND DEPARTMENT/SPECIALTY:

DR M	CANCICDETCEC	
E	CALDERON	BIOCHEMISTRY
M	CANCICDETORO	UNIV. OF PUERTO RICO (BIOCHEMISTRY & NUTRITION)
E	TCFCGCYCO	UNIV. OF PUERTO RICO (BIOCHEMISTRY & NUTRITION)

## RECIPIENT INSTITUTION:

U.S. VETERANS ADMINISTRATION  
CENTER HOSPITAL  
SAN JUAN, PUERTO RICO

## PERIOD FOR THIS NRP:

7/68 TO 6/69  
FY69

## SUMMARY OF PROJECT:

Pinguinain is a low molecular weight protease abundantly found in the fruits of the tropical plant Bromelia pinguin L. The enzyme, which is very resistant to heat, shows a broad peptide specificity, and a slightly acid pH optimum, is easily isolated from its source and obtained in a highly purified form after a simple purification procedure. Its enzymatic activity is very pronounced, hydrolyzing efficiently native human albumin (ordinarily not easily hydrolyzed by proteases). It also shows collagenase activity. Because of all these factors its potential usefulness as a meat tenderizer is being explored.

The efficacy of pinguinain as a meat tenderizer is being studied by a physical method in order to assure objective testing. The meat selected for these studies is beef eye-round, Utility Grade. (Meat is purchased locally in the frozen state, in pre-cut slices 1/2 inch thick, at 65 cents per pound). A shear press is utilized to measure the force necessary to cut through the sample under standardized conditions. The effect of enzyme concentration, pH, time of incubation, temperature incubation, and the influence of such factors as presence of salts, method of enzyme application, method of heat application and quality of meat are being studied. A comparative study of meat tenderizing efficiency of pinguinain with other enzymes used as meat tenderizers is also being performed.

Preliminary results obtained may be summarized as follows: pH optimum: 6; optimum time of incubation: 10 min; effect of concentration of enzyme: linear relationship up to 19%; effect of presence of NaCl: inverse relationship up to 29%; optimum temperature of incubation: 60 degrees C; optimum method of heat application: moist heat; optimum method of enzyme application: immersion; optimum type of cooking: 10 minutes; grade of meat for optimum efficiency of enzyme: Utility Grade; comparative activity of Pinguinain and other enzyme tested: 1.25 times more active as a meat tenderizer.

## REQUEST FOR SERVICES

ZIP Code

SIE DB 1027r



NOTICE OF RESEARCH PROJECT  
SCIENCE INFORMATION EXCHANGE  
SMITHSONIAN INSTITUTION

NOT FOR PUBLICATION OR  
PUBLICATION REFERENCE

SIE NO.

AGENCY NO.

SUPPORTING AGENCY:

TITLE OF PROJECT:

Give names, departments, and official titles of PRINCIPAL INVESTIGATORS and ALL OTHER PROFESSIONAL PERSONNEL engaged on the project.

NAME AND ADDRESS OF INSTITUTION:

SUMMARY OF PROPOSED WORK – (200 words or less.) – In the Science Information Exchange summaries of work in progress are exchanged with government and private agencies supporting research, and are forwarded to investigators who request such information. Your summary is to be used for these purposes. **DO NOT REGISTER A PROJECT SUPPORTED BY A FEDERAL AGENCY OR A FOUNDATION IF YOU HAVE ALREADY REGISTERED SUCH A PROGRAM DURING THIS FISCAL YEAR.**

SIGNATURE OF  
PRINCIPAL INVESTIGATOR \_\_\_\_\_

PROFESSIONAL SCHOOL  
(medical, graduate, etc.) \_\_\_\_\_

DATES OF CURRENT AUTHORIZATION (or fiscal year):

ANNUAL LEVEL OF EFFORT IN DOLLARS (Not released without authorization):