

United States Department of Agriculture

Agricultural Research Service

Program Aid 1502

The Agricultural Research Service

Research for the growing world

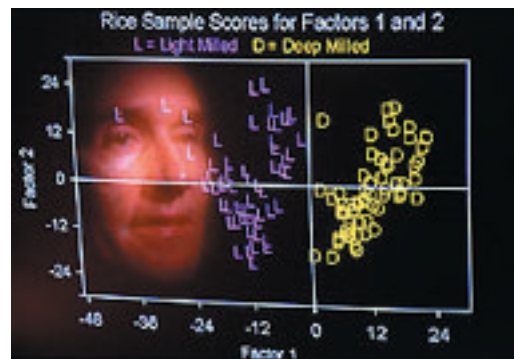


Research for the growing world

ARS is the U.S. scientific research agency responsible for solving agricultural problems of national importance.

ARS research develops solutions to a wide range of problems related to food and agriculture—problems requiring long-term commitment of resources and problems unlikely to have solutions with the quick commercial payoff that would convince private industry to do the research. These problems range from protecting crops and livestock from costly pests and diseases to improving quality and safety of agricultural

commodities and products, determining the best nutrition for humans from infancy to old



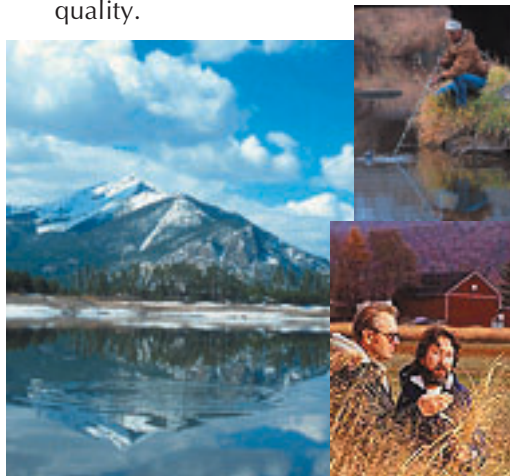
age, sustaining natural resources, and ensuring profitability for producers and processors while keeping costs down for consumers. In addition to serving this broad range of customers, ARS provides research to support Federal action and regulatory agencies.

The agency's researchers work at about 100 locations nationwide and a few key sites overseas. ARS employs about 7,000 people; 2,000 of them are scientists. The agency's national programs are divided among three major areas:

- **Animal Production, Product Value, and Safety**—improving productivity, value, and safety of meat and dairy products and improving human lives through nutrition.



- **Natural Resources and Sustainable Agricultural Systems**—developing new practices and technologies that conserve natural resources and balance agricultural production with environmental quality.



- **Crop Production, Product Value, and Safety**—improving productivity, value, and safety of crops that are the economic backbone of U.S. agriculture.



Research Highlights



Using an ARS computer model can greatly reduce the risk of salmonella in poultry products. The model, now

used by industry and regulatory agencies, helps make food safety decisions and evaluates the risk of salmonella infection from farm to table.

ARS scientists published the first genetic linkage maps of swine, cattle, and sheep. These maps will lead to development of more productive and disease-resistant



An easy-to-use ARS-developed test kit detects 185 potyviruses in vegetables and flowers, and it has become the standard in more than 105 countries. Many such viruses cause serious diseases in a wide range of economi-

cally important crops. Customs and quarantine officials use this test to detect and prevent introduction of these diseases into the United States.

livestock. Of direct benefit to consumers will be higher quality food products that are safer, leaner, and more tender.



ARS has developed a series of high-fiber, low-calorie products (Oatrim, Z-Trim, and Nutrim) that are being used by food companies as fat substitutes in prepared foods. These fat replacers have already created new

markets for grain products and new jobs in agriculture and could have a huge impact on preventing heart disease by lowering blood cholesterol.



In decades of collaborative research, ARS, State, and industry scientists have developed over 90 percent of the rice grown in the United States. Its high quality explains why 1 out of 5

bushels of rice on the world export market is grown by U.S. farmers.

ARS has developed methods using specially designed biosolids compost to restore sites contaminated by toxic elements. These methods restore vegetation, protect human

and animal health, and reduce remediation costs by as much as \$1,000 to \$3,000 per acre.



Agency researchers have developed conservation tillage systems and crop residue management practices that have increased profitability while preserving our natural resources and minimizing harm to the environment

from agricultural production on hundreds of thousands of acres.

ARS developed and released a new cotton germplasm with higher fiber strength that

allowed industry to introduce new processes for wrinkle-resistant materials, opening a multibillion-dollar market for U.S. producers and processors.



Technology Transfer

In addition to carrying out its research, ARS transfers the resulting technology to intermediate and end users and otherwise communicates the information gained through its research. This technology transfer and information dissemination is carried out by all ARS employees with the help and guidance of the National Agricultural Library, the Office of Technology Transfer, and the Information Staff.



Planning and Peer-Review

National research programs are planned in consultation with ARS customers to ensure relevance to priority needs.

All research projects are peer-reviewed by panels mainly made up of non-ARS scientists who evaluate each project plan's scientific merit. These reviews ensure the continued excellence and significance of the agency's research.



Information

For information on the agency's accomplishments, visit the ARS World Wide Web site at <http://www.ars.usda.gov> and click on one of these links.

News and Information—a wealth of news articles and agency publications describing ARS research, including Agricultural Research magazine, the ARS News Service, Science in Your Shopping Cart, Science for Kids and Ciencia para Niños, the Teachers Desk, a web version of this brochure, and more.



Offices and Programs—for links to area offices and individual labs and locations and for information on employment, civil rights, and doing business with REE agencies.

Research—program and project descriptions and information on publications, people, and places tied to these programs.

USDA National Agricultural Library—for access to a unique and irreplaceable resource for agricultural researchers, policymakers, regulators, and scholars, and a gateway to the library's services and programs, point to <http://www.nal.usda.gov>.

ARS research locations

Centralized direction, management, and coordination of ARS research programs emanates from headquarters offices in Washington, D.C., and nearby Beltsville, Maryland. Administration, oversight, and support of the research is divided among eight geographical areas and the Office of International Research Programs. Addresses for the area headquarters offices are given below.

Beltsville Area

Beltsville, Maryland, and
Washington, D.C.

Bldg. 003, Room 223
10300 Baltimore Ave.
Beltsville, MD 20705

Mid South Area

Alabama, Kentucky, Louisiana,
Mississippi, and Tennessee

Jamie Whitten Delta States
Research Center
141 Experiment Station Rd.
P.O. Box 225
Stoneville, MS 38776

Midwest Area

Illinois, Indiana, Iowa, Michigan, Minnesota,
Missouri, Ohio, Wisconsin

1815 N University St.
Peoria, IL 61604

North Atlantic Area

Connecticut, Delaware, Massachusetts,
Maryland, Maine, New Hampshire,
New Jersey, New York, Pennsylvania,
Rhode Island, Vermont, West Virginia

600 E Mermaid Lane
Wyndmoor, PA 19038

Northern Plains Area

Colorado, Kansas, Montana,
Nebraska, North Dakota, South Dakota,
Utah, Wyoming

1201 Oakridge Dr., Suite 150
Fort Collins, CO 80525-5562

Pacific West Area

Alaska, Arizona, California, Hawaii,
Idaho, Nevada, Oregon, Washington

800 Buchanan St.
Albany, CA 94710

South Atlantic Area

Florida, Georgia, North Carolina,
Puerto Rico, South Carolina,
U.S. Virgin Islands, Virginia

950 College Station Rd.
P.O. Box 5677
Athens, GA 30604-5677

Southern Plains Area

Arkansas, New Mexico, Oklahoma,
Texas

7607 Eastmark Dr., Suite 230
College Station, TX 77840

International Locations

(focusing on finding natural enemies of
insects, weeds, and other pests that
have invaded the United States for
development of safe-to-use biological
control agents)

Montpellier, France
Buenos Aires, Argentina
Brisbane, Australia
Beijing, China

Office of International Research
Programs
5601 Sunnyside Ave., Room 4-1139
Beltsville, MD 20705-5134

National Agricultural Library

The principal source in the United
States for information about food,
agriculture, and natural resources, and
one of the largest and most accessible
collections of agricultural information
and databases in the world.

10301 Baltimore Ave.
Beltsville, MD 20705

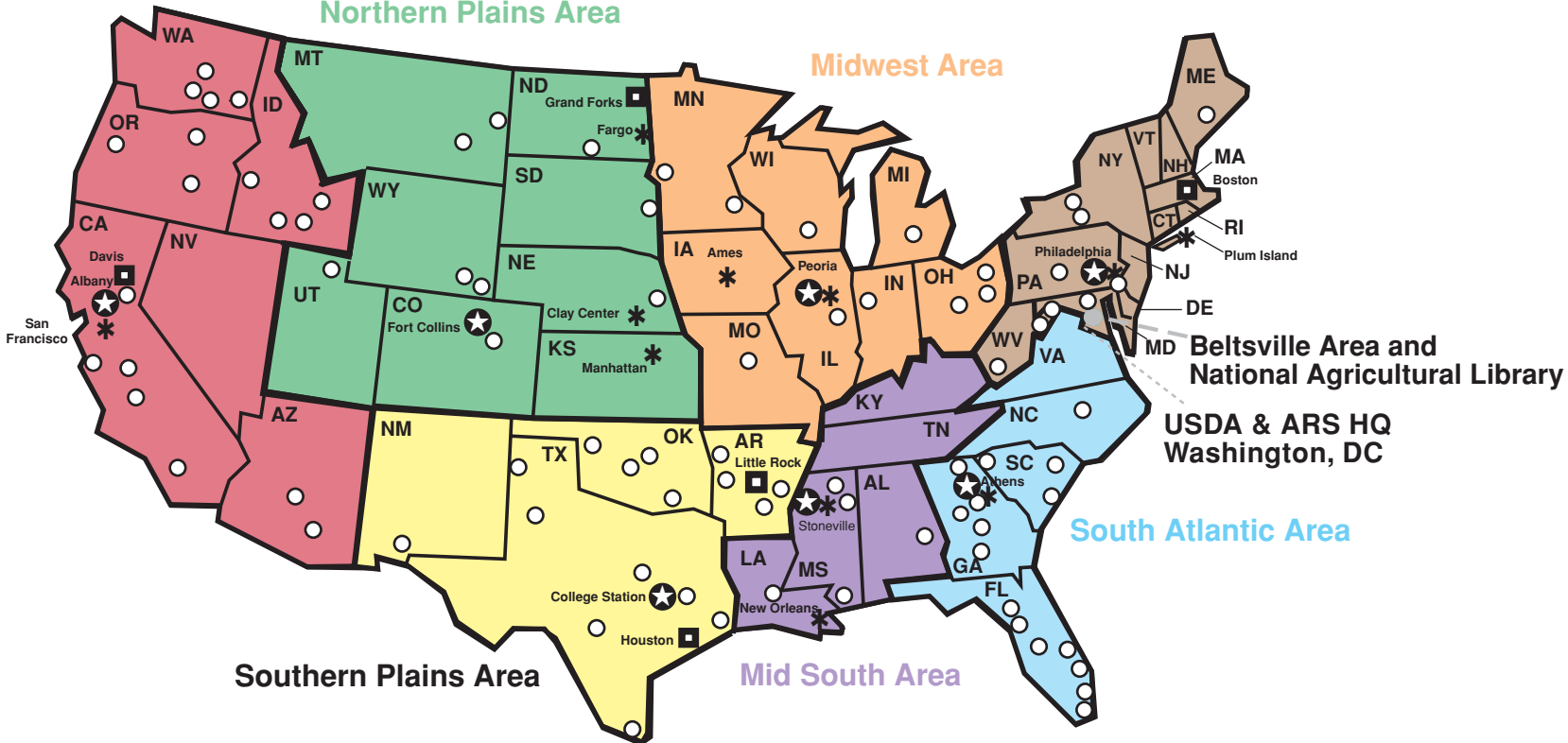
Agricultural Research Service Area Organization

Pacific West Area

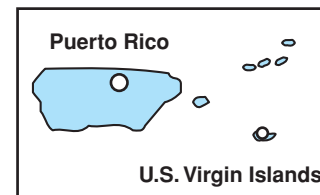
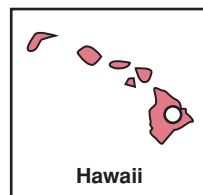
Northern Plains Area

North Atlantic Area

Midwest Area



- ★ Area Offices
- * Research Centers
- Human Nutrition Centers
- Research Locations



ARS is part of the U.S. Department of Agriculture's Research, Education, and Economics mission area.

ARS Mission

As the principal in-house research arm of the U.S. Department of Agriculture, ARS conducts research to develop and transfer solutions to agricultural problems of high national priority and provides information access and dissemination to ensure high-quality, safe food and other agricultural products, assess the nutritional needs of Americans, sustain a competitive agricultural economy, enhance the natural resource base and the environment, and provide economic opportunities for rural citizens, communities, and society as a whole.

Revised October 2000, Slightly revised July 2001

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