

USDA Lists Ag Research Highlights

The U. S. Department of Agriculture's Agricultural Research Service reported numerous advances in farm science during the past year. Cooperating in many of these research achievements were State agricultural experiment stations in all parts of the country and research workers in a number of industrial and other private concerns.

Here are a few of the highlights:

CROPS — A notable "first" was achieved when USDA and Michigan State scientists synthesized natural rubber in the laboratory for the first time. This test-tube rubber was produced in research on rubber-producing plants, by combining enzymes of natural rubber with acetic acid.

Two experimental weed-killers, (2,4-DB) and 4(MCPB), proved highly effective in test trials against broad-leaved weeds in fields planted to crops easily injured by weed-killers commonly used.

Development of productive single-germ sugar-beet hybrids promises to eliminate costly hand thinning of beets. The multiple-germ seed of ordinary sugar-beets produces clumps of seedlings, making hand thinning necessary.

A unique rabbit-blood bank was developed. Rabbits injected with virus from diseased plants develop antibodies that are used to detect certain diseases of cereal grains.

Several research-developed crop and forage varieties characterized by disease resistance and high yields were released for planting. They include Bronco wheat, Wiley sorgo, Trail barley, goldtop sweetclover, Grant soybeans, and Dixie Bright 244 tobacco.

An intriguing plant-growth regulator called gibberellic acid showed a marked effect on the growth and flowering of certain plants. In some cases, applying minute amounts of the chemical to the stems caused plants to grow much taller than normal.

LIVESTOCK — Researchers are optimistic about chances of improving the meat-tenderness quality of animals through breeding, as a result of tests showing that this quality is inherited.

A new, long-term breeding and selection program for swine has been started similar to that used for developing improved hybrid corn.

A new, low-cost dairy record-keeping program, called the "Weigh-a-Day-a-Month" plan, went into effect to help farmers improve dairy production efficiency.

Crossbreeding of Hampshire, Shropshire, and Southdown sheep resulted in hybrid lambs with superior meat and wool.

Two turkeys hatched from infertile eggs made headlines when they lived 18 and 22 days — the first pathogenetic poult to live more than a few hours. Knowledge gained from studying them may help researchers improve fertility and hatchability of turkey eggs.

An unknown growth factor in feather meal was discovered through experimental use of the meal in poultry feeds.

INSECT CONTROL—Research on insecticides and attractants for use against the Mediterranean fruit fly made possible a large-scale program to eradicate this serious pest of citrus and other crops discovered in Florida in April, 1956. By the end of the year, Medfly numbers had been drastically reduced and prospects were good that the country would be free of this insect before the end of 1957.

Radioactive tracers revealed how some insects develop resis-

tance to insecticides. Scientists also learned how to trace with Geiger counters the paths of "tagged" insects — even those beneath the soil or bark of trees.

An outstanding insect repellent, N,N-diethyl-m-toluamide, was found highly effective against mosquitoes, stable flies, fleas, ticks, and chiggers.

A virus-disease spray to control the Virginia pine sawfly proved successful in localized tests. Virus from naturally infected sawfly larvae was used.

A new systemic insecticide, Dow ET-57, given by mouth to cattle, showed promise for cattle-grub control.

When freed of crop-destroying nematodes by new fumigants, soils produced crops valued 4 to 10 times the cost of fumigation. One friendly nematode was found that transmits a bacterial disease highly destructive to several injurious insects.

UTILIZATION — Work was begun to determine the effects of high-energy radiation on cotton, to learn whether irradiated cotton can be used for useful new textile products or will have increased value in various present uses.

Agave lecheguilla, a poisonous plant that grows wild on millions of acres in the Southwest, was termed the most promising native plant source of chemicals for making the anti-arthritis drug cortisone.

A fast method of unhairing hides with an enzyme preparation to obtain high yields of good quality leather was developed. An experimental leather tanned with extract of canaigre

root — a sweetpotato-like tuber that grows in the Southwest — gave good results in tests of soles of military shoes.

Wider use of tung oil for paints and other surface coatings is promised. Tung oil with built-in resistance to molds and fungi is one new development.

A continuous process was developed for producing powdered apple, grape, and cherry juices of good quality storable without refrigeration for two years.

Potato flakes, a new research-developed dehydrated product for making mashed potatoes, sold well in market tests.

NEW FACILITIES — A tract near Ames, Iowa, was chosen as the site of a new Federal livestock and poultry disease laboratory. Funds totaling \$16,250,000 for constructing and equipping the laboratory were authorized.

The new \$10 million research building of USDA's Plum Island Animal Disease Laboratory off Long Island, N. Y., was dedicated. It provides facilities for research on foot-and-mouth disease and other animal diseases of foreign origin.

Colorado A & M College at Fort Collins, Colo., was selected as the site of a new National Seed Storage Laboratory — a Federal facility to store valuable germ plasm for future use in developing better crops. Funds amounting to \$450,000 were authorized for its construction.

The new USDA Southeastern Cotton Ginning Laboratory at Clemson Agricultural College, Clemson, S. C., was dedicated.

Voice of Lancaster Farms

Darius Spece, R2 Honey Brook

Enclosed find a dollar bill for Lancaster Farming, a great little paper. Keep the paper coming. We like it very much.

Mr. and Mrs. H. R. Lichty, R1 East Earl

Dear Friends: Enclosed you will find \$2 for your most interesting paper. We do enjoy it very much, so newsy. Of course the recipes are mostly my interest. Many thanks for the paper.

John S. Fox, R3 Ephrata

Enclosed find \$2 for Lancaster Farming for 20 months. I enjoy reading it from cover to cover so keep up your good work.

Samuel W. Faus, R2 Manheim

I appreciate your paper very much for the cattle and poultry markets and all others which you have in.

J. H. Graybill, R3 Manheim

Dear Friends: We enjoy Lancaster Farming very much.

Being a Flying Farmer, I appreciate your articles on Flying Farmers. Let's have more of them.

Mrs. Maurice Lowe, Sr., R3 Manheim

Dear Sir: I sure do enjoy reading the paper. I would not want to miss it. I enjoy the womens pages which are full of recipes and very good household hints which are very helpful at times.

R. P. Conway, 4252 Salerno Rd. South,

Eleven 4-H'ers To Show Heifers

Eleven 4-H Dairy Club members from this area have been named to exhibit their heifers at the Farm Show in Harrisburg Jan. 14-18.

Showing Ayrshire heifers will be: Joan and Ned Paes, Strasburg R1; Marilyn Harnish, Quarryville R2 and Donald Pryer, Strasburg R1.

Exhibiting Guernsey are Ross and William Ferguson, Kirkwood. Showing Holstein are: Paul and Donald Welk, Strasburg R1; Paul and Donald Trimble, Quarryville R1; and James Hess, Strasburg.

The entries are highly rated on the basis of comparative scores taken from District Roundups held in various parts of the state.

Jacksonville 10, Fla.

Gentlemen: Your paper has done an excellent job of presenting farm news and advertising. It's a friendly paper and we enjoy reading it.

C. Leroy Beltz, R3 Oxford

I have enjoyed your paper much as I look forward to it every week. I do not want to miss any of the papers, so I am sending for another year.

Charles F. Feltz, Maytown

I am very well pleased with the paper. It is very helpful and educational along the farming angle.

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You couldn't find a better market for your dairy cows and heifer calves, your registered bulls and your surplus crop of bull calves, your poultry and chicks . . . or for your used equipment.

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You don't want to waste time reading ads that have no bearing on the farming business.

And you DO want to place your own "wanted" ad in a paper which is being read by the very people you want to reach. Readers will find your ad quickly among the FARM ads in LANCASTER FARMING.

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ONLY 5 cents a word if set solid. Count initials, abbreviations, or numbers as words. Ads running 3 or more consecutive times with no change billed at 4c per word each time with 80c minimum.

EXAMPLE:

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Cost : 25 words at .05 — \$1.25 one insertion.

Use This Handy Chart To Figure Your Cost

Words	(1) Issue	(3) Issues
20 Min	\$1.00	\$2.40
21	1.05	2.52
22	1.10	2.64
23	1.15	2.76
24	1.20	2.88
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