Plant Industry Shows Progress

Fight on Diseases Made by Selection of Highly Resistant Strains.

(Prepared by the United States Department of Agriculture.)

The year's work of the bureau of plant industry described in the report recently made to the secretary of agriculture shows much progress in solving the problems of plant production, the control of diseases, the breeding of improved varieties, the introduction of promising seeds and plants from foreign countries and the development of methods for the utilization of perishable crops, such as fruits and vegetables. Much of the work done is of the kind which brings its greatest returns after there has been time for the commercial development of discoveries.

In combating plant diseases a great deal of progress has been made through obtaining highly resistant or immune strains by trial and selection. In this way strains of wheat have been secured which promise to be valuable in sections where bunt has damaged this crop. Varieties resistant to flag smut are being developed, and this disease is no longer considered the menace it was thought to be a few years ago. Attempts are being made to grow strains resistant to both flag smut and rosette. In the study of scab, a disease which damages both wheat and corn, it has been discovered that wheat seedlings are more resistant when grown at comparatively low soil temperatures and that corn seedlings are more resistant to it when the soil is warm. Barberry eradication was carried on extensively in co-operation with a number of states for the control of black stem rust, and up to the present time nearly 6,000,000 bushes have been eradicated. Chemicals are being used successfully to destroy the bushes in places where digging is not practicable.

New Crops Developed.

New varieties of oats have been secured in co-operation with state experiment stations and a number of them are being distributed. The root and stalk rots of corn have been found to require special soil management for their control; in some cases proper fertilization and amendments are all that is required, while to control the parasitic types crop rotation is needed in addition. Some new forage crops are being developed and improved varieties of common crops have been developed and new methods are being tried for handling them. New and rare field seeds are being brought into the country, tried out, increased and distributed to growers.

Lack of space in a brief article puts a limit on the details which can be given on the various lines of work carried on with the many important crops. Valuable results have been obtained in the treatment of "tobacco sick" soils and means have been found for the prevention of a condition known as "sand drown" by the use of magnesia. Various phases of cotton production have received attention, including cultural methods and special varieties to help in the control of the boll weevil, trials of cotton classing in the field and breeding to maintain the purity of Egyptian cotton grown in the Southwest.

Extensive work has been done with fruits and nuts, studies have been made of the possibilities of growing binder twine fiber in Porto Rico, the Virgin Islands and the Philippines. The improvement of citrus fruits is now being greatly increased through the use of bud selection from trees with performance records, a method developed by the department, and means have been found for the control of stem-end rot of citrus fruits. Through work being carried on in the Southwest the infant date industry is being greatly stimulated, and there is a new interest in the production of figs. The fruit and nut industries are being helped not only through the introduction and development of better varieties and methods of growing, but also through studies of handling and shipping the products. It was shown that berries produced in the Northwest can be shipped greater distances successfully if handled more carefully and precooled. A series of tests have shown that nuts of various kinds can be kept from two to three years if held at a temperature as low as 32 degrees.

Plant Diseases Combated.

The principal vegetables reported on were potatoes, sweet potatoes and peas. Improvements have been obtained through the selection of seed stocks, the development of improved varieties and in the control of diseases. In the field of forest trees work has been carried on with white pine blister rust, which is now spreading in the Northwest, and in the East with chestnut blight. The Chinese chestnut has been found quite resistant to the disease. In addition to these two important trees which are menaced, it is reported that another valuable tree, the Douglas fir, is in danger of canker, which occurs on these trees in Scotland and which already may be in this country.

Among the many other problems given attention in the report are wood conservation, the effects of length of day on plant responses, soil bacteriology, the prevention of alkali injury on irrigated lands, sources of crude rubber, explorations in many parts of the world for new plants and seeds. Among the promising new fruits given special mention are Baronni olives, Fuyu persimmons and several new avocados. Another new plant is Meyna citrate, of the mint family.

Magnetic Machine Lays Nails Out for Packing

It is reported that a Swiss inventor has produced a machine that by magnetism arranges nails in parallel layers ready for packing. It works on the principle that all linear iron objects in a magnetic field arrange themselves automatically in the direction of the lines of force. The machine can also be used to arrange wire rods, hairpins, knife blades, pens and fishhooks. The packages to be filled by the machine may be the standard type of nail keg, wooden boxes or paper cartons. It is probable that the ten-pound cardboard package will supersede the old-fashioned nail keg, because it costs less, weighs less and is more convenient. The machine consists of two parts—paralleling platform and a feed trough above it, which is fitted with a shaking mechanism. The articles to be packed are poured into the feed trough in lots of about 1,000 pounds, and, by the action of the shaking mechanism, are moved to the front of the trough, where they drop into the paralleling platform. That consists of a tray, each side of which forms one pole of an electromagnet. The articles as they fall are drawn into the direction of the magnetic lines of force, which adjust them at once in parallel lines.

Barbados Man Travels 10,000 Miles for Wife

The course of true love, famed for its failure to run smooth, has established a record in the case of W. Percy Emtage, electrical engineer of the Barbados, says the New York World. It carried him 10,000 miles.

Three years ago Emtage first saw Sibyl Peterkin, also of the Barbados, and set out to get an introduction. He succeeded and followed it with a proposal. Miss Peterkin said she would love to be his sister and then packed up and departed for Boston.

Both wrote. Emtage's letters were pleading; Miss Peterkin's friendly and discouraging. Finally she quit writing altogether. Her last letter explained he was a "nice boy, but—"

This was six months ago and Emtage decided Boston might be interesting. He went there. Miss Peterkin had gone to Los Angeles. Emtage went to Los Angeles, but she had left for San Francisco. He followed, but she had returned to Boston.

Cheerfully he started back across the continent, only to find she had quit Boston for Brooklyn. He found her there in the home of her uncle, Edward Pyle.

Then Miss Peterkin gave up. They were married recently in the Municipal building, New York.

Relics of the Bruce

A find of an interesting character has been made on the field where the famous battle of Bannockburn was fought in 1314, and where, it is claimed, Scotland won its independence as a nation. Three sharp-pointed wooden stakes in an excellent state of preservation have been discovered three feet below the surface on a piece of land formerly known as the Mitton Bog.

This bog is referred to in the chronicles of the battle, history recording that King Robert the Bruce of Scotland had pits made in the bog and pointed stakes placed in them to stay the progress of the English cavalry, and it is a matter of history or tradition that this device proved to be very successful. These stakes, which were found standing upright in the soil, are regarded as genuine, and are now being treasured as historical records in the ancient town of Stirling.

First Leviathan Was Failure

The first attempt to provide transatlantic travelers with a vessel that, in size and magnificence, would be a floating hotel, was made in the building of the Great Eastern. The launching of this huge ship, for some time called the Leviathan, was commenced November 2, 1857, but owing to the difficulty of moving the enormous weight, the vessel was not finally afloat until early in 1858.

The secret of managing so large a liner had not yet been learned; and the Great Eastern was from the first a white elephant to her owners. Her only real service was in the laying of Atlantic cables. She made her last voyage 35 years ago, and was then disposed of as junk. The pioneer Leviathan had a length of 692 feet and a tonnage of 27,000.—Detroit News.

Egyptian Stamps in Arabic Only.

A new issue of stamps is in circulation in Egypt, but these stamps only show their value in Arabic characters. This is a great inconvenience to many people. Three-quarters of the foreigners in Egypt do not know how to read Arabic and thousands of tourists who cannot decipher Arabic characters yearly visit Egypt. Perhaps it will be urged that Egypt, like other countries, should have its stamps printed only in the national language, but the cosmopolitan character of the Egyptian population seems to give good reason for departing, in this particular, from the practice of other nations.—Christian Science Monitor.

Hitching Horseless Buggies.

Because of being pestered by motor thefts a small town in California has set up a row of concrete hitching posts on the main street for the use of motorists. When the farmers drive in for their Saturday shopping now they drive the car up to the hitching rail, as in bygone days, and chain the wheels to the truest post.

NOTICE—I will grind corn on Friday and Saturday at my home. Offie Clayton, Roxboro, N. C., Route 4. 1pd

The home agents on the staff of the State College and Department of Agriculture carried out a program of organized work in 935 communities, they visited 11,387 homes, and had 43,319 people to call on them at the office during the past year.