bilize against invasion it would benefit by experiences in feeding large groups. Not a pretty thought, nevertheless it cannot be overlooked. Such projects as preparing lunches for children on relief, and the Red Cross feeding of thousands made homeless by Mississippi floods and other disasters, are a form of preparedness. The WPA alone has trained 36,000 workers in cooking and serving school lunches.

The British were told by food officials last autumn to dig for victory. Meaning that they were to plant gardens to stretch the home-grown food supplies. While the United States now has surpluses, there are places in this country where home gardening is filling a special nutritional need, and is being expanded. Some of the plantation owners in southern states are requiring tenants to cultivate gardens, and some plantations operate a community garden, where tenants may obtain a variety of food at small expense.

Gardens are a means of warding off pellagra, a disease which Public Health Service officials say occurs among 100,ooo people in the South each year. It plagues the poor who live mainly on corn as cereal food.

Gardens For Vitamins

A garden patch carefully planned can fortify a family with an impressive array of the vitamin-rich fruits and vegetables, plus vitamin D gained from the sunshine while working the patch.

Precisely measuring the advance of American nutrition since 1917 is a problem in fine figures that stumps statisticians. They can tell you readily that 468 draft men out of 1,000 in World War days had some physical defect. It was easy to count the number of men with flat feet or weak eyesight. But no special effort was made to detect the obscure physical conditions due to eating the wrong kind of food, or too little. As has been said, less was known about nutrition, then. It was not until post-World War times that nutritionists gave up laying heavy stress on charts decreeing a proper weight for each height. They learned that a person might be heavy enough or even over-weight, and still be starving for want of some food factor essential to sturdy well-being.

It was not known in 1917 what people in different parts of the United States ate, though it was familiar knowledge that the dinner tables of New England differed from those of the South or Midwest. Lack of this information was a problem for American food officials, when they set about rationing supplies in war days.

Science News Letter, September 14, 1940

Swine Erysipelas May Infect Human Beings

American Veterinary Medical Association Meeting Hears of Many Advances in Keeping Animals Healthy

ERYSIPELAS in one form can be "caught" from pigs by human beings, Dr. Glenn S. Everts, Philadelphia physician, stated before the 77th annual meeting of the American Veterinary Medical Association, held in Washington, D. C., Aug. 26 to 30.

Swine erysipelas is caused by a germ that is found practically everywhere and is exceedingly hard to kill, said Dr. Everts. It occurs wherever nitrogenous substances are decaying, and can grow in the soil without contact with a living animal host. It resists the processes commonly employed in processing pork, such as boiling, salting, pickling and smoking.

In swine, the disease manifests itself in three forms; mild, acute and chronic. The mild form is fairly common in human cases, the other two rather rare. In one pork packing plant that came under Dr. Everts' observation, 2% of all employes who handled the product developed symptoms.

Infection always starts in some slight break in the skin of the hand. Pain is the first thing noticed, followed by swelling and reddening. The infection usually tends to spread, although it rarely goes beyond the wrist, except in unusually severe cases. The disease runs its course in about three weeks. About a fourth of the men attacked lose from one day to two weeks of working time.

Science News Letter, September 14, 1940

Parentage Tests For Cattle

CASES of disputed human parentage get into the courts occasionally, and when they do they are usually page one news because of the drama involved. Doubtful parentage among animals may be of importance, too, because of loss in cash value if the wrong strain has entered into the pedigree.

Blood tests can be used to settle paternity questions among cattle, Dr. Lloyd C. Ferguson of the University of Wisconsin told the meeting. Procedure, however, is not the same as in human cases. Human paternity is decided on the basis

of blood types, such as are used in "matching" blood for transfusions. In cattle, the things used are antigens—definite chemical entities in the blood that react in the presence of one particular substance.

Cattle blood has been shown to possess something over 20 such antigens, each dependent on a single hereditary character or gene. Not all of these antigens are present in the blood of any one animal, but a characteristic pattern, almost as definite as the spectrum of an element, marks a given strain of descent. By matching these antigen patterns it is possible to tell whose calf is whose.

Science News Letter, September 14, 1940

Brucellosis Vaccination

ACCINATION can protect cows against the serious disease, brucellosis or contagious abortion, which causes heavy money losses to farmers and stockmen, Prof. C. M. Haring and Prof. Jacob Traum of the University of California reported before the Association.

The vaccine consists of a suspension of weakened germs, which are related to the cause of Malta fever or undulant fever in man. Protection with this vaccine has been conferred upon large numbers of animals over a period sufficiently long to justify the belief of the two researchers in its efficacy.

They reported comparative observations, on vaccinated and unvaccinated cattle: "Data show that 2,872 parturitions of vaccinated animals yielded 94.1% normal calves, whereas 1,763 parturitions of the older nonvaccinated cows in these dairies, including both negative and reacting animals, resulted in only 86.1% normal living calves."

The vaccine is administered to heifers while they are quite young, and usually gives protection until the first calf is born. Protection is not absolute: too close association with infected cows during the last six months of pregnancy may cause the loss of the calf.

Science News Letter, September 14, 1940



BARNYARD INVADES BALLROOM

For the first time in its glittering history, the grand ballroom of the Mayslower Hotel in Washington, D. C., resounded to hoofbeats, when a horse, a cow and a sheep were led into it during the recent meeting of the American Veterinary Medical Association, for a demonstration of new apparatus and methods in animal clinics.

Trichinosis Tests Criticized Rat Germs Kill Eggs

TESTING swine for trichinosis by means of skin reactions is not yet in the category of proven successes, Dr. Benjamin Schwartz of the U. S. Department of Agriculture told the veterinarians. One trouble with the tests thus far proposed is that while they may show up on a nice, fresh, smoothly pinkskinned pig, they aren't distinct and sharp enough to stand out on the wrinkled, rough, mottled hide of a veteran porker at the sudden end of a hard life.

Skin tests have been found somewhat ambiguous, in repeated trials in the Bureau of Animal Industry, Dr. Schwartz reported. Sometimes they fail to show up on hogs subsequently demonstrated to be trichinous by post-mortem examination, while animals without trichinae have given positive reactions in many cases.

A more positive test, with results easy to detect under ordinary packing-house inspection conditions, is still to be discovered, Dr. Schwartz insisted.

Science News Letter, September 14, 1940

RATS can be enemies of turkeys in more ways than simply stealing their eggs and killing their chicks. They can be carriers of disease germs that kill the helpless embryos before they have a chance to hatch, it was shown in experiments by Dr. R. Fenstermacher and Dr. B. S. Pomeroy of the University of Minnesota, reported before the meeting.

In the experiments, batches of eggs were smeared over about a third of their surfaces with a preparation containing live germs of mouse typhoid, a common and frequently fatal disease among mice and rats. Then they were put into incubators to hatch. A good many of them never did, and of the young birds that finally came out, a good many died.

Post-mortem examinations of the chicks that died, both before and after hatching, disclosed the presence of the mouse typhoid germ in a high percentage of cases.

Science News Letter, September 14, 1940

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