

NUTRITION

Europe Needs Fats

Shipments of substantial quantities of fats and of smaller amounts of canned and dried milk and meat will be seriously needed by liberated peoples.

► OVERSEAS shipments of substantial quantities of fats and of smaller quantities of canned and dried milk and meat will be seriously needed in liberated areas in Europe to feed the civilian population for weeks and months after fighting ceases. This is a conclusion of the Food Research Institute of Stanford University in a recent study of livestock in western continental Europe during the present war.

The study covers the livestock situation, and the production of meats and animal products, in all the countries of continental Europe except the Soviet Union and the Baltic states. Large shipments of feed grains for cattle, sheep and poultry, along with the early shipment of foods, will assist the situation as farmers will then be able to feed their existing stock more adequately and take steps toward rebuilding their pig herds and poultry flocks.

"With substantially more feed available, the production of milk and eggs should increase within a few weeks; within a few months, the increased feed rations should be reflected in gradually rising slaughter weights of meat animals," the report of the study states, "and within a year, the enlarged pig herds and poultry flocks should be yielding much more meat and fat than at any time since 1940-41."

Through the fifth year of World War II the livestock position in the portion of Europe studied "has deteriorated significantly less than it did in 1914-18," the report continues. "Cattle, sheep and horses have declined moderately in number during the past five years, and sharp reductions have been registered only for pigs and poultry. The lowest point in animal numbers apparently came in 1942-43. Since then many countries have reported moderate increases."

The areas studied lost some 6,000,000 cattle, 7,000,000 sheep, and 21,000,000 pigs, but these losses represent roughly 7% of the cattle and sheep and 30% of the pigs. Poultry losses were about 20% of the prewar figure.

The production of meat in 1943-44 "amounted to something like three-fourths of the average annual output in

the last five prewar years . . . the total output of milk in 1943 may have amounted to about 85% of the 1934-38 average." Millions of men in the Axis armies and millions of workers in war industries and farmers received far more than their average share of the meat and dairy products so that very little meat, butter or cheese was left for ordinary urban civilians.

Wartime declines in cattle and pig numbers were largest in the German-occupied countries of northwestern Europe. More or less declines in cattle numbers may have occurred in Finland, Poland, Yugoslavia and Greece, but these countries probably suffered less losses of pigs than the Low Countries and Norway.

"The most serious shortages of animal products, as well as food in general, will be encountered in the large cities," the study concludes. "It can satisfactorily

be met only if Allied occupation authorities take proper steps to establish proper rationing systems and reduce black-market operations."

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ENGINEERING

Inactive Radio Crystals Put Back in Service

► OVER 50,000 radio transmitter crystals have been salvaged from battle-damaged U. S. military planes and put back into service, thanks to a crystal tester.

Invented by Technical Sergeant James T. Johnson, radio technician at an aircraft repair and modification depot in England, the tester instantly gives a visual picture of the exact frequency of the crystal, and at the same time indicates the crystal's ability to stand up under the vibration of a plane in flight. Prior to this machine, no quick method of checking crystals accurately was available.

Quartz crystals are used in radio transmitters to maintain the operation of the radio waves sent out on an assigned frequency. They prevent a radio station or radio telephone from being heard at one point on the dial at one time, and at another point on the dial another time.

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2,000,000-VOLT X-RAYS—R. R. Machlett, (left), is shown with the new Machlett precision two-million-volt X-ray tube. Dr. Ernest E. Charlton and Harry Mesick (right), of the General Electric Research Laboratory, are shown examining their nine-foot two-million-volt multisection X-ray tube. These new high-volt tubes make it possible to get pictures through extremely thick sections of steel. (See SNL, Oct. 14, p. 243).