materials contain, they are all valuable for heat insulation in such things as refrigerator walls, the sides and roofs of houses, and around steam and water pipes. Because they are very light, they can be used also for packing material in carrying vessels that help keep their contents either cold or hot. Moreover, they will cushion the inner container against jars and jolts in transit.

Science News Letter, February 20, 1943

MEDICINE

Injury Factor Discovered Which Induces Inflammation

➤ DISCOVERY of a chemical, tentatively named necrosin, which induces the inflammation that occurs in various conditions, is announced by Dr. Valy Menkin, of Harvard Medical School (Science, Feb. 12).

Besides the redness and swelling which the layman recognizes as signs of inflammation, there are other disturbances of the body cells recognized by scientists. These inflammatory changes all follow the same pattern, regardless of what part of the body is inflamed or what injury or disease germ started the inflammation. Search for the underlying factor that causes the cell injury which results in inflammation led to discovery of necrosin.

Necrosin has not yet been chemically identified but is associated with a protein called euglobulin. Dr. Menkin found necrosin in exudates from dogs and man like, for example, the exudate in inflammations such as pleurisy.

Science News Letter, February 20, 1943



WILDLIFE

Wildlife Ups Meat Supply

Former delicacies such as venison, wild duck and reindeer are now being used to take the place of scarce beef, pork and lamb.

➤ VENISON, wild duck, mountain trout: these and other gourmets' dainties in times of abundance have become items of straight-out nutrition now that meat rationing is upon us. How to make the most of our wild game and fish resources without endangering the necessary breeding stocks was discussed from all possible angles by leaders in wildlife research and administration at the eighth North American Wildlife Conference in Denver.

The war has brought many new problems to the men who watch over the mammals and birds of our wodlands and the fish of our streams and lakes. Hunters' ammunition supplies have been "frozen", new fishing tackle is not being made, many sportsmen are in the armed services or too busy in war work to go hunting and fishing, new populations have migrated into hitherto sparsely inhabited places in the West, game surplushes threaten to multiply to the mass starvation point if not shot down to normal levels—these are only a few of the headaches which the members of the Conference tried to alleviate in their discussions.

Science News Letter, February 20, 1943

Reindeer Steaks for Army

➤ ONE BIG-GAME surplus that turns out to be a piece of good fortune for the U. S. Army is the overpopulation of reindeer on Nunivak island, off the coast of Alaska. From fewer than 200 animals planted there shortly after the first World War, the herd on the island has increased to an estimated 19,000. The available browse will support only about 10,000, so the surplus must be killed off. The situation was described by Clifford C. Presnall of the U. S. Fish and Wildlife Service, who is in charge of wildlife on Indian lands.

The program calls for the killing of all buck fawns of the 1943 crop, Mr. Presnall told his audience; their hides will be used in making sleeping bags and mukluks (Eskimo type boots). Surplus adults will be killed, beginning next fall, until the herd is down to 10,000 head. Meat will be supplied to

the armed forces so far as required, and the rest will be made available for civilian use through regular market channels.

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Surplus Elk Goes to Indians

➤ YELLOWSTONE PARK has long had a problem in the increase of the two elk herds that pasture within its boundaries in summer and migrate down-valley in winter, stated Victor H. Cahalane, National Park Service naturalist. There is no hunting in any national park, so that the animals are protected as long as they stay inside. The surplus, therefore, can be kept down by hunting only when the elk migrate out in the winter.

Recent winters have been mild, and the elk have stayed within park boundaries most of the time. Add to this the severe damage their natural forage suffered during the droughts of the mid-1930's, and you have the makings of severe difficulties for the Park Service wildlife administrators.

During the present winter, cooperation of state and national agencies, favored by weather and other factors, has made possible a total reduction of 7,230 elk, nearly a tenth of which were killed within the park by rangers under official instruction. The meat was utilized by the Indians, and to some extent by Montana residents.

Science News Letter, February 20, 1943

Game Slaughter Opposed

➤ PROPOSALS to treat surplus game as meat animals, simply killing them en masse to get rid of surpluses, were opposed by Ross Leonard, director of the Utah Fish and Game Department. It is better, Mr. Leonard held, to permit the time-tried method of licensed and controlled hunting to reduce the size of the herd. Exceptions may occasionally be made, as where elk become locally too numerous and take to raiding ranchers' haystacks too persistently.

The speaker recognized factors that may operate against a normal hunting

take, such as shifts of population and restrictions on motor transportation. He felt, however, that the natural hunting instinct of most men will overcome such handicaps, and make game meat available in the accustomed way.

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Increasing Fish Supply

A number of the papers presented had to do with the improvement of conditions for fish and through that the increase of the freshwater fish supply. H. S. Swingle and E. V. Smith of the Alabama Agricultural Experiment Station told of their success in making bass, bream, crappie and other pondfish into what amounts to a field crop. They created a twelve-acre pond on some worn-out farmland, stocked it with fingerlings, put in fertilizer, and cultivated plants that would be an ultimate source of food for the fish. The finny

crop for 1941 was well over a ton; that for 1942 was more than a ton and a half.

Similar success with pondfish reared in Oklahoma was reported by A. D. Aldrich, superintendent of the Tulsa Municipal Fisheries. That city maintains a hatchery, from which a local body of water, Spavinaw lake, is annually planted with as many as half a million fingerlings. Operation is self-supporting, a small but sufficient revenue coming in from the sale of fishing and boating permits.

James W. Moffett of the U. S. Fish and Wildlife Service reported on the fish in Lake Mead, the artificially created inland sea backed up behind Boulder Dam. There is a large natural population of bass in the lake, which seem to be getting along very well without any man-made help, except for maintaining the lake level as constant as possible during the spawining season.

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GEOGRAPHY

Tunisia Tough on Troops

AS THE TUNISIAN rainy season for early 1943 draws to a close, combat activities become possible in the semi-desert areas south and west of the seaport city, Sfax. The rainy season in this westernmost of French possessions in North Africa is roughly from October to April. The other months are hot and dry—usually with little or no rainfall.

Southern Tunisia has little rain at any season. It is a desert area. Northern Tunisia is mountainous except for a flat coastal rim. The United Nations' fighting forces are in the mountainous country, the Axis on the coastal rim. American forces are reported to be in the northern part of middle Tunisia, the area stretching northward from the semi-desert country along the great salt-depression called Chott el Djerid, the largest of the salt-water lakes or chotts of Tunisia.

In the mountainous area are farms, grazing ranches, and timbered areas with growths of marketable evergreen oaks, Aleppo pines and cork trees. The olive groves for which Tunisia is famed are on the coastal rim from Sfax, which is to the northeast of the Chott el Djerid, northward to Tunis.

Mountainous middle and northern Tunisia is not an easy country for troop movements. It is a land of mountains and plains but without plateaus. It is rough and badly eroded in some sections.

It is not supplied with good roads. Getting about in the rainy season is a mudfighting job. But with new military roads constructed by the Army and with additional flying fields, the path is cleared to drive the enemy on the coastal plains into the Mediterranean.

It is a difficult country in which to obtain food and fighting equipment for an army. Considerable quantities of wheat and barley are produced, some of which are exported normally but not enough to be of much help in feeding the United Nations' troops. It produces many goats, considerable numbers of sheep, and some cattle. Goat meat is not included in the American army diet, and enough local mutton and beef cannot be purchased to meet the needs.

Supplies of all kinds must be transported over a long and difficult road. They are brought by ships to Casablanca, and from there by standard-gauge railroad to western Tunisia. Then they must be reloaded onto narrow-gauge cars or army trucks for transportation to middle Tunisia. They are carried by railroad and highway a distance equal to half the distance from Washington, D. C., to Los Angeles. Some supplies and equipment are unloaded from shipboard at Algiers. Transportation from there is over the same standard-gauge and narrow-gauge railroads.

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HYSICS

Expansion of Technical Training Program Urged

EXPANSION of the wartime college training of physicists and technicians to provide for the needs of war industries and research was pointed out as imperatively needed, by a joint meeting of the American Physical Society and the American Association of Physics Teachers.

At present, the training program is providing only the scientific personnel needed by the armed forces, and young physicists are even being called away from their laboratories by the draft. This is creating a dangerous vacuum in the research and testing forces on the home front, where exact scientific knowledge is needed even more than it is on the firing line.

Copies of a resolution calling for a well-rounded program, to provide trained personnel for all essential war agencies instead of just the Army and Navy, were forwarded to: Paul V. McNutt, chairman, War Manpower Commission; Henry L. Stimson, Secretary of War; Frank Knox, Secretary of the Navy; Donald M. Nelson, chairman, War Production Board; Dr. Vannevar Bush, director, office of Scientific Research and Development, and Dr. James B. Conant, chairman, National Defense Research Committee.

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BACTERIOLOGY

\$1,000 Bacteriology Prize For Research on CO₂

THE \$1,000 prize and gold medal given annually by the Society of American Bacteriologists to an American bacteriologist under 36 years of age who has made an outstanding contribution to knowledge of the subject during the year was awarded to Dr. Harlan G. Wood, research assistant professor of bacteriology at Iowa State College.

Work tending to show that carbon dioxide acts as a vitamin-like substance necessary in the life of plants and animals won the award for Dr. Wood.

The award is presented at the annual meeting of the Society of American Bacteriologists, but as this was cancelled this year, the award was presented to Dr. Wood at a joint meeting at Iowa State College of local chapters of the Society and of Sigma Xi.

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