



CAONILLAS DAM—This \$10,000,000 hydro-electric and irrigation project is the largest in Puerto Rico. It is nearing completion between the cities of San Juan and Ponce.

The Caonillas hydro-electric project is midway between San Juan and Ponce, the two principal cities of the island. Together with Garzas and Dos Bocas, it is located in the mountainous central western area of Puerto Rico where the annual rainfall reaches some 200 inches.

The Caonillas dam will stand 230 feet

above stream level. Its reservoir will hold 50,000 acre feet of water. A two-mile tunnel will connect this reservoir with Dos Bocas lake. A five-mile tunnel will later divert water from the headwaters of the Arcibo river into both lakes. Year-around water is thus assured.

Science News Letter, August 28, 1948

VETERINARY MEDICINE

U. S. Eating Unfit Meat

In 1947, 40,000,000 pounds of unfit meat reached the public. Veterinarians also told that human cases of brucellosis are increasing.

► “UNSUSPECTING” Americans are eating millions of pounds of unfit meat each year, the American Veterinary Medical Association’s convention in San Francisco was warned.

More than 40,000,000 pounds of unfit meat went to public markets last year, the Association’s committee on food and hygiene estimated. A report blamed the situation on failure of cities and states to provide complete and adequate veterinary inspection.

About 69% of the meat processed in the U. S. last year came from packing plants under federal veterinary inspection, while the rest was under municipal or state supervision, it was explained.

The report emphasized that complete inspection includes examination of the animal before slaughter as well as after. “Only a few states” have such a program, the committee charged.

Only about one half of the clean poultry sold received veterinary inspection, the report said. Nearly one-twelfth of the poultry inspected was rejected for human consumption.

The report said that 20%—one out of every five quarts—of milk consumed in the nation last year was not pasteurized.

Disease testing and universal pasteurization were stressed in a program recommended for public health.

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Brucellosis in Humans

► HUMAN CASES of brucellosis, a disease acquired from infected animals, have increased 60-fold in the past two decades, Dr. James H. Steele, Atlanta, Ga., chief veterinarian of the U. S. Public Health Service, reported.

Dr. Steele said that the disease which comes mainly from swine and cattle now ranks with encephalomyelitis (sleeping sickness) and rabies as the most serious threat to public health from animals.

Science News Letter, August 28, 1948

Chicks Get Arthritis

► A STRANGE new virus disease which produces arthritis in chickens before they are hatched is a new threat to the nation’s food supply.

The disease which strikes turkeys as well as chickens was described to the meeting by the Association’s poultry committee. The new disease of embryo chicks has been reported only in the eastern states thus far, the committee said, but it may be more prevalent than is realized.

It causes both respiratory and nervous disorders in poultry. In turkeys, the nervous disturbances are like those from the better-known poultry menace, Newcastle disease. The latter has now spread to all but three states, the committee commented.

Science News Letter, August 28, 1948

Over-Eating in Lambs

► A NEW immunizing product and sulfur in feed are two new methods of keeping lambs from literally eating themselves to death.

Drs. A. W. Deem, Rue Jensen and Floyd Cross, all of Fort Collins, Colo., explained that over-eating of grains and other concentrates produces an intestinal poisoning in lambs. Sulfur in the diet or use of a new bacterin were both found effective in preventing loss of lambs from too much food.

Science News Letter, August 28, 1948

Crowding Endangers Calves

► ADD to the victims of a housing shortage many calves that are killed by infectious disease, Dr. W. J. Gibbons of the Alabama Polytechnic Institute advised the convention.

Dr. Gibbons explained that too many calves are killed by infectious diseases which they get from older cattle in crowded barns. He urged keeping calves in small, isolated groups of approximately the same age as a means of adding to the nation’s meat supply.

Science News Letter, August 28, 1948

Drugs Cause Cattle Loss

► PROPAGANDA urging farmers to use penicillin, sulfa drugs and other products

on their livestock may be causing some losses of animals, the convention was told.

When these drugs are used without skilled diagnosis, proper dosage or adequate care, the farmer may not only lose the money spent on the drugs but his animals, the public relations committee of

the Association charged.

"Certain groups and commercial interests who are seeking to exploit the farmer for private gain" were attacked for promoting the sale of these drugs without proper precautions.

Science News Letter, August 28, 1948

VETERINARY MEDICINE

Three-Way Peril to Food

► A THREE-WAY THREAT to food supplies in event of an attack with atomic weapons was described by Army scientists to the national convention of the American Veterinary Medical Association in San Francisco.

In atomic warfare, food supplies of human survivors would be endangered by: Loss of livestock and food in the burst area.

"Atomic sickness" of food animals.

Atomic contamination of food supplies.

Fighting these food dangers would be the job of veterinarians, the convention was told by Col. W. O. Kester of the Veterinary Division of the Office of the Army Surgeon General and Maj. E. B. Miller of the Army Medical Library.

Blast injury or damage, burning or scorching and biologic effects on animal tissues and other materials result from an atomic explosion, they reported.

Animal survivors of the Bikini atomic bomb tests showed many of the same symptoms and ills as the Japanese survivors of Hiroshima and Nagasaki. Some of the goats, pigs and rats appeared healthy for several days, although their white blood cell count went down. Within two weeks, some of them died after showing several types of symptoms. Almost no deaths of Bikini animals occurred after the first month, the scientists said.

Science News Letter, August 28, 1948

Testimonials Attacked

► TESTIMONIALS by veterinarians of claims made for drugs and foods for animals were labelled "vicious" by Dr. S. W. Haigler of the Association's committee on ethics. He attacked testimonials as a violation of professional ethics and urged state groups and schools of veterinary medicine to encourage progress in adopting a uniform code for veterinarians.

Science News Letter, August 28, 1948

Viruses in Chicken Coop

► AIR "RAIDS" in chicken coops are causing losses to valuable supplies of poultry, the veterinarians were warned.

Dr. K. B. DeOme of the University of California described the air attack. It is made by viruses of two poultry diseases. Dr. DeOme reported experiments proving that the diseases are spread by air-borne

transmission. Chickens inhaling air or dust containing the viruses were infected with the diseases.

Ultraviolet lamps and certain chemical vapors were found very effective against the virus of the disease, laryngotracheitis, he explained. But against the virus of the dread Newcastle disease of chickens, these anti-air-virus weapons were much less effective, it was discovered.

Science News Letter, August 28, 1948

OPTICS

Dark Glasses Worn by Night Drivers Are Unsafe

► DARK GLASSES, worn at night by automobile drivers to relieve the glare from on-coming headlights, are often a hazard, the National Bureau of Standards finds in a recent investigation of protective glasses and goggles. They decrease visibility.

Most types of combinations of shaded glasses have been found to be unsafe as a means of protection against glare from automobile headlights, Ralph Stair of the Bureau staff states. In general it is the belief that any advantage of reducing glare from car headlights by wearing dark glasses is more than counterbalanced by the extra hazard arising from the decreased visibility of objects.

Tests by a number of observers indicate, however, some basis for claims of increased visibility and reduction of glare through the use of yellow glass. Dark glasses are an active aid in glaring sunlight. They cut the brightness to a comfortable value such that the protective mechanism of the eye can assume control of the radiant energy reaching the retina.

Eyeglasses are essential for workers in many types of occupations, the Bureau emphasizes. But they must be adapted to the particular job. In operations such as welding with coated rods, or in aluminum or magnesium welding and cutting, producing high radiant flux at the wavelengths of sodium lines, glasses containing didymium have been found useful. Glassblowers also need didymium glasses because ordinary glass, with its high sodium content, gives off an intense yellow flare when heated.

Special cobalt-blue glasses have been used and demanded by operators of open-hearth furnaces, in the particular shade with

which the operator is familiar, because of the contrast in brightness between the molten metal and the interior of the furnace. Blue-amber glasses are worn by operators in the Bessemer steel-producing process because with them they can note certain color changes of the flame as the impurities are burned off.

When glasses having a high optical density are worn for protection of the eyes in industrial operations, the elimination of harmful ultraviolet rays must be given first attention. Infra-red rays, which are heat waves, can be given second consideration because a worker is generally forewarned by a burning sensation.

Science News Letter, August 28, 1948

AGRICULTURE

Farmer Who Trapped Skunks Lost His Ducks to Turtles

► A FARMER complained that he lost his ducks when he began trapping skunks. He was the victim of a sort of biological "chain reaction."

The mystery of the missing ducks is told by Dr. Edward H. Graham, chief of the biology division of the Soil Conservation Services of the U. S. Department of Agriculture.

The key to the farmer's skunk-duck troubles turned out to be turtles. It worked this way:

The farmer trapped the skunks. The skunks had been eating the eggs of snapping turtles. The turtles multiplied as the skunks were caught. Then the turtles began to feed on the ducklings.

The moral, says Dr. Graham, is: Think in terms of interrelationships rather than simple cause and effect in dealing with nature.

Science News Letter, August 28, 1948

INVENTION

Buzzer Warns Fisherman When Fish Is Hooked

► AN ELECTRICAL GADGET that can be a good friend both to the very lazy fisherman and the very busy one has been invented by Antoni Linder of Chicago, and is covered by U. S. patent 2,446,427.

It is built essentially like a door or desk buzzer, only instead of having a button to push it has a hook to pull. The fisherman's line is made fast to this hook, and when a fish bites, the tug transmitted through the line closes the contact and sounds the buzzer.

The lazy, vacationing fisherman, with one line out, can lean back and snooze, or sit up and play bridge or engage in whatever other activity may be going on aboard, until the buzzer sounds. On the other hand, the busy commercial fisherman, who may have a dozen or more lines out at once, will be notified by the buzzer whenever a fish is waiting to be hauled in.

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