

NUTRITION

Powdered 'Beefsteak' Diet

Meat powder, richer in iron and protein than powdered milk, is seen as an excellent food supplement for peoples of newly developing countries—By Barbara Tufty

► A DELICIOUS POWDER made entirely from meat offers a high-protein source for future meals.

The golden-brown powder smells agreeably like cooked meat and tastes like meat gravy.

Made by drying and grinding parts of livestock, the powder can be used by itself, or it can be added to foods such as potatoes and corn. Vegetables such as cabbage and spinach can be pepped up for reluctant children with this nutritious powder.

Meat powder is richer in iron than milk powder and has more protein, it is reported by Dr. I. Mann, Minister of Agriculture and Animal Husbandry in Kenya, East Africa, where the powder already is being eaten.

A mixture of 40 parts dry skim milk and 60 parts meat powder is reported to be selling well on the Kenya market. Called "nyamaziwa," it has a broader range of amino acids and minerals than does the straight meat powder.

Containing 74% crude protein, the powder can be packed in compact containers and easily shipped for long distances without spoiling or losing its flavor or quality.

This is particularly important in newly developing countries where distances between markets are usually great, climates are varied and facilities for preserving meat are scanty, he said.

More than a million pounds of meat powder have been sold on the market since its manufacture began in Kenya a few years ago. Nearly three-fourths of a million pounds were distributed in the emergencies of droughts and floods that struck Kenya during the years of 1961 and 1962.

The golden powder also can help solve one of the most serious problems of the African livestock industry. Certain livestock of tropical lands are so crowded that they cannot find enough food and are undersized, tough and thin. Besides this, these animals eat voraciously any vegetation they can reach and can turn the land into a desert.

Such scrawny animals are not suitable for eating as fresh meat, but they can be turned successfully into meat powder. Everything is used in the powder except the hide, bones, hooves, horns and the intestinal tract. These by-products are used for making fertilizers and bone meal feed for non-grazing animals such as pigs and poultry.

The added bone meal increases egg, pork and poultry production. By lessening livestock numbers, the remaining animals have more to eat, are better tended, and provide better meat, hides and skin.

Dr. Mann detailed his country's successes with the meat powder at the First African Meeting on Animal Production held in

Addis Ababa, Ethiopia, under the sponsorship of the Food and Agriculture Organization of the United Nations.

The potential use of this meat powder is expected to vary because of the social, political, economic and religious aspects in different countries. Religious scruples and taboos against eating meat are difficult to overcome.

• Science News Letter, 85:242 April 18, 1964

PUBLIC HEALTH

Fish Deaths Renew Insecticide Inquiries

► THE WIDELY-PUBLICIZED mass deaths of fish in the lower Mississippi, blamed on the "normal" use of insecticides, is merely a sample of what is happening across the nation, a Government wildlife expert reported.

Researchers have suspected for several years that the regular mass deaths of fish in many areas is due to the approved use of crop insecticides, said Dr. John L. Buckley, chief of the office of pesticide coordination, U.S. Fish and Wildlife Service.

"We know that such use is widespread," he said, "and we know that the poisons do not stay where we put them."

Approved use of DDT for mosquito control is to blame for the annual loss of young trout in New York lakes, he told the Entomological Society of Washington, D. C.

The insecticides are washed by rain into streams and rivers and collect in the lakes. The poisons are absorbed and stored in the fatty tissues of animals.

Dr. Buckley said that of the salmon in Sebago Lake, Maine, more than half the older fish have stored levels of poisons above that allowed in domestic meats.

These occurrences of insecticide accumulation are typical of what is happening in many parts of the United States, he said.

He cited these examples because extensive study indicated that the situation was due not to accidental spillage of large amounts of DDT, but to the normal and recommended application.

DDT is related to aldrin and dieldrin which figured in the fish killing in the lower Mississippi which prompted the concern of Sen. Abraham Ribicoff (D-Conn.) to order public hearings on the registration of pesticides.

Dr. Buckley questions whether it will be safe for sportsmen to continue to eat fish and wildlife that are storing up these insecticides.

Human levels of tolerance to some of these poisons are unknown.

Meanwhile, the U.S. Department of Agriculture is developing methods of insect control that do not use poisons.

• Science News Letter, 85:242 April 18, 1964



Copyrighted by National Geographic Society

JAWS COMPARED—The lower jaw of a child of the new species *Homo habilis* (top left) and that of a young female of the same species (top center) resemble that of present-day *Homo sapiens* (bottom center) but are strikingly different from the massive mandible of *Zinjanthropus* (top right).