

MEDICINE

Bracken, Cancer Link Seen

► THE PREVALENCE of stomach cancer in Japan could be traced in part to the custom of eating a coarse fern called bracken.

Two "grasses" belonging to the large family of ferns called polypodiaceae are believed to be indistinguishable and could be interchanged in food markets.

Warabi, *Pteridium aquilium*, is known to cause cancer in animals, while zen mai, *Osmunda japonica*, is probably harmless. Used widely as a fresh or dried vegetable and seasoning throughout Japan, zen mai could easily be mixed with the cancer-causing bracken, it is feared.

A survey of sheep on the North Yorkshire Moors reported in *Nature*, 208:913, 1965, has revealed that a number of older animals from areas infested with bracken have died of the same type of tumor produced in rats that ate a bracken diet.

Drs. I. Antice Evans and J. Mason of the department of biochemistry and soil science, University College of North Wales, Bangor, Caernarvonshire, reported the study.

These scientists pointed out that it is well known from previous research that an effect like radiation damage has been found in cattle eating the bracken plant or extracts from it. Intestinal tumors in rodents are

rare, but the investigators found that 20 male rats and 14 female rats fed a bracken diet died or showed poor condition when killed.

Postmortem examination showed numerous multiple tumors protruding into the intestines, predominantly in the region of the ileum, or lower part of the small intestine. Ten of the animals developed a very large tumor as well as other widespread smaller ones.

Work is now going on to find the exact causative agent by trials with bracken extracts. The residue of fibrous material after extraction is also under test to eliminate any possibility of irritant action.

Communications are being exchanged with Japanese scientists to determine how carefully fern material is being screened before being made available in public markets.

This is the second plant food that has been incriminated as a cause of cancer. The tropical plant called the cycad, which is found in Guam and elsewhere, was suspected of being dangerous to humans after untreated seeds caused liver cancer in rats.

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MEDICINE

Vitamin E Harmful?

► SO FAR, no one has proved that large quantities of vitamin E do any harm.

However, vitamin E deficiencies have been found in man as well as in experimental animals, and even now, 40 years after this vitamin was isolated and purified, its effects are uncertain, especially in adults.

It may take years to find out how harmful vitamin E deficiency is in man.

There are two kinds of vitamin E deficiency. One is caused by lack of milk, eggs, fish, meat, cereals and leafy vegetables. It rarely occurs among the well fed U.S. population.

The other is a "secondary" deficiency due to decreased absorption of fats and occurs in several diseases, including cystic fibrosis, sprue and chronic inflammation of the pancreas known as pancreatitis.

These diseases can cause a bowel condition called steatorrhea in which fatty feces occur, and is more common in the United States than has been thought.

This second kind of vitamin E deficiency is being studied by a team of scientists at the Yale University School of Medicine, New Haven. Using 19 normal persons as controls, and 35 others for testing, they found 17 deficient.

Dr. Henry J. Binder and his colleagues say that they plan to spend a great deal of time in trying to find out the long-term effects of vitamin E deficiency in Americans and whether this condition is definitely harmful to adults in this country.

The Yale team reported in *The New England Journal of Medicine* 273:1289, 1965, and referred to other investigations of the subject.

Working with gastro-enterologist Dr. Binder on the report on tocopherol deficiency in man were Dr. David C. Herting, Distillation Products Industries, a division of Eastman Kodak Company, Rochester, N.Y.; Dr. Victor Hurst, formerly assistant resident, Yale-New Haven Hospital, and Drs. Stuart C. Finch and Howard M. Spiro of the Yale University School of Medicine. Their work was supported in part by the U.S. Public Health Service.

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PUBLIC HEALTH

Need Definite Steps For Population Control

► THE GOVERNMENT was urged to take definite and comprehensive steps toward population control in the United States and abroad.

A report to the White House Conference on International Cooperation recommended 10 steps, ranging from birth control research to implementation, to achieve population control.

Heading the list was a proposal that the Government encourage population research in U.S. universities.

Medical schools have been criticized re-

cently for not giving more attention to birth control.

Another recommendation was that the Government cooperate at local levels in setting up family planning services—a controversial subject in many cities in the United States.

A third suggestion was that the United States should make \$100 million a year available to foreign countries wishing to implement population control. The committee report also called for a greatly expanded program to train doctors, specialists and administrators, foreign as well as U.S.

The committee recommended that a White House Conference on Population be held within two years.

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SPACE

Records and Rendezvous For Double Gemini Flight

► ASTRONAUTS Frank Borman and James Lovell spent two whole weeks in space aboard Gemini 7, setting flight records for both men and spacecraft. They performed varieties of experiments, including a conversation with the ground on a beam of light from a laser.

Height of the flight came midway through the second week, when old-timer Walter Schirra and co-pilot Thomas Stafford flew up to meet them in Gemini 6, which finally got off the ground after two false starts.

As number 7 coasted around the earth, Capt. Schirra flew Gemini 6 through an intricate series of orbit-changing maneuvers, ending up with the two spacecraft a mere six feet apart, where the astronauts took pictures, practiced close-in maneuvering, and exchanged jokes.

"That sure was a big deal," Capt. Schirra declared.

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GEOLOGY

Third Largest Meteorite Reported Found in China

► EARTH'S THIRD largest meteorite, weighing some 30 tons, has reportedly been discovered in Communist China's Gobi Desert.

It was said to have been found in northern Sinkiang and is on display in Urumchi, capital of Sinkiang.

The largest meteorite on record is the Hoba iron found in 1920 near Grootfontein, Southwest Africa, which weighs an estimated 60 tons. The second largest is called Ahnighito. It was found in Greenland by Eskimos and brought to the United States in 1897.

Ahnighto weighs 34 tons and is on display at the American Museum of Natural History in New York.

The Sinkiang meteorite, like all of the largest known meteorites, is undoubtedly a metallic one, or "siderite," composed primarily of an alloy of nickel-iron, Ronald A. Oriti reported in the *Griffith Observer*, 29:155, 1965.

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