

## MEDICINE

# Thanksgiving Harvest of Health

In the first American Thanksgiving, the near-starving Pilgrims gave thanks for food. Americans today give thanks for rich harvests of health and long life as well as food.

By JANE STAFFORD

## See Front Cover

► A HEARTY DINNER was the cause for celebration and thanks on the first American Thanksgiving in 1621. It is still cause for thanks, although most Americans today are accustomed to bountiful harvests and hearty dinners.

As a nation we can also give thanks today for another kind of harvest—one of health and longevity far beyond anything the Pilgrim fathers could have dreamed of.

The babies at this year's Thanksgiving feast can expect to live out the Biblical lifespan of three score years and ten that only a few reached in the seventeenth century. As long as two years ago, babies born in the United States had a life expectancy of 69.6 years.

Although life expectancy figures for babies born in 1956 have not yet been compiled, the chances seem good that the extra six months will be picked up to give a 70-year expectation of life at birth for boy and girl babies of all races in the United States this Thanksgiving.

## Life Span Doubled

That 70 years is twice as long a life as parents at the first American Thanksgiving feast could expect for their new babies. Although vital statistics were not being kept in those days, such records of the times as are available would place life expectancy in 1621 at 33 to 35 years.

Of course, there were a good many persons who lived much longer. However, very many died younger, and many failed to survive the first year after birth.

Wounds and malnutrition if not outright starvation and "fevers" took their toll, year after year, of persons at all ages. Many of the common killers in 1621 and for a long time after are scarcely known to us today.

## Scientific Health Harvest

Our harvest of health and long life has come through scientific discoveries and their application.

This very year thousands of parents and their children can give thanks for one of the latest additions to our granary of health, the Salk vaccine that protects against crippling and sometimes killing poliomyelitis, or infantile paralysis as it once was called.

Cases for the year may be only a half or a third of those of some not too distant

years when parents and children alike trembled at every upset stomach or headache in the summer and were terrified by reports of a case of polio in a neighbor child.

Vaccines against other diseases have contributed to our health harvest. Babies born this year need not face death or disfigurement from smallpox. However, 100 years after the first Thanksgiving, more than half the population of Boston was attacked by this disease.

The dirty, gray membrane of diphtheria that choked life from babies and children and even grown-ups now can be avoided by protective immunizations given before the child is a year old. At the same time, today's children can be protected against whooping cough and tetanus, or lockjaw, which worried our grandmothers when a child stepped on a rusty nail.

## Lockjaw Now Avoidable

It was not the rust but the lockjaw germs that might be on the nail and the air-less puncture wound of the nail that were the danger, but lockjaw now can be avoided by proper immunization.

We increased our health harvest when we learned that typhoid fever, cholera and dysenteries spread through food and drinking water contaminated with germs from intestinal wastes of patients. Sanitary sewage disposal, clean water and pure food, and pasteurized milk help save us from disease and add to our health and life expectancy.

Discovery that mosquitoes carry yellow fever and malaria made a tremendous contribution, with modern insecticides from DDT on to check the disease-carrying insects.

## Bubonic Plague Controlled

We are healthier and live longer because our scientists discovered that fleas harbored by rats spread bubonic plague and that human lice and rat fleas spread typhus fever.

Mothers no longer need die of childbed fever, nor babies of "summer complaint," thanks to sulfa drugs, penicillin and the other antibiotics. These modern miracle drugs have also brought us a bountiful health harvest through their conquest of pneumonia, staphylococcus and streptococcus infections, syphilis, gonorrhoea, and other venereal diseases, and that once great "white plague," tuberculosis.

We can give thanks for the miracles of

modern surgery as we think of the babies born with damaged hearts who have been saved by surgeons from short, unhappy lives, and of the countless men, women and children restored to healthy and useful life by other surgical operations, from removal of an inflamed appendix to the cutting out of a brain tumor, of a dangerous ballooned-out part of a blood vessel or of a life-threatening cancer.

From chemists and physiologists have come other health bounties such as insulin that keeps diabetics alive and healthy, thyroid hormone that saves children from imbecility, and the anti-arthritis hormones and related chemicals.

## Food Is Bountiful

We eat better today, not only on Thanksgiving but the year around. This is because scientists have shown us how to raise more and better food and how to preserve it so that we can feast on turkey or strawberries or most anything else every day in the year.

It is also because they have found and taught us the foods that supply life-essential vitamins, minerals and other nutrients, as well as filling our stomachs and pleasing our palates.

How changed the future may be is illustrated in the photograph on the cover of this week's SCIENCE NEWS LETTER. Although the turkey may face a shorter life than his wild forbears of Pilgrim days, the young American can expect to live twice as long as the average youngster of the Pilgrim times.

A sobering thought as we give thanks for our present bountiful health harvest is the fact that we still have not reaped all the health and length of life we might.

## Some Still Unconquered

Too many are killed or maimed beyond the surgeon's skill to repair because of preventable accidents on highways, in homes, at work and at play.

Many at the Thanksgiving feast may be sniffing and sneezing and coughing because no sure cure or vaccine or preventive has yet been found for the common cold. That and many other virus-caused ailments are still unconquered by vaccine or modern wonder drugs.

We are thankful for the many who have been cured of cancer, but mindful that this disease still takes its toll, although many scientists now feel hopeful of finding chemicals that will stop its malignant course or of unlocking the secret of resistance to it which is possessed by some fortunate ones.

Perhaps we relax better for our Thanksgiving feast, thanks to drugs widely used now to relieve the tensions many feel too

acutely. However, for those millions whose minds and emotions are so distorted that they cannot understand or feel the meaning of Thanksgiving and whose dinner today, as every day, is served in the drab surroundings of a mental hospital, something more than relaxing drugs is needed. A sanity-restoring chemical or treatment is wanted.

Finally, we all know that the wonderful pump that is the human heart still fails too early in too many. Even with all other plagues and diseased states overcome, we still must find ways to keep this pump primed and in good working order to fill our health granary to overflowing.

Science News Letter, November 17, 1956

## GENERAL SCIENCE

## Course Offered for Interlingua Translators

► A COURSE designed to impart full translation and composition mastery of Interlingua, the international language, is being taught this and next semester at New York University at Washington Square.

It is recommended especially for foreign-language teachers and editorial or clerical workers in fields involving international communication. Dr. Alexander Gode, chief, Interlingua Division of SCIENCE SERVICE in New York, teaches the course.

The structure of Interlingua is studied in reference to the basic similarities of English, French, Spanish and other Western languages.

Reading material will be drawn from various sources, including the Interlingua section of SCIENCE NEWS LETTER, the numerous technical journals carrying Interlingua abstracts and summaries, and the Interlingua program volumes of international congresses such as the Second World Congress of Cardiology and the Sixth Congress of the International Society of Hematology.

Individual preferences for literary, commercial or scientific translation material are taken into consideration in the class. Knowledge of another foreign language is useful but is not required for the course.

Science News Letter, November 17, 1956

## NUTRITION

# Whale Steak for Dinner

► SOME DAY in the not too distant future people may eat whale steak for dinner, thanks to antibiotics, the so-called mold remedies for many dangerous diseases.

Antibiotics will keep the whale meat fresh from the time of catch through processing. The whale, being a large, warm-blooded mammal, chills slowly, so that much potentially edible meat now is lost before processing can be completed.

The antibiotic, chlortetracycline, or Aureomycin, is now being tested as a preservative of whale meat. The antibiotic dissolved in sea water is injected into the whale.

Samples of liver and muscle were put into polyethylene bags and frozen. After two months, samples showed only very low concentrations of the antibiotic.

The tests were reported by J. W. Boyd, B. A. Southcott and H. L. A. Tarr of the Fisheries Research Board of Canada at Vancouver at the Fourth Annual Symposium on Antibiotics in Washington.

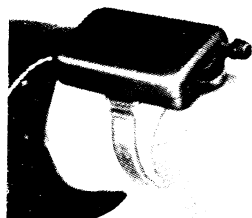
Injecting whales on-the-run with a harpoon is also being tried in Norwegian waters.

Two Norwegian whaling companies have been seeking to arrest the process of decay in dead whales with Biostat, an oxytetracycline preparation developed by Chas. Pfizer & Co., Inc.

Recent experiments in which a whale was treated with Biostat immediately after being killed showed that the decay process, usually well advanced in the whale's intestines after 36 hours, had not started. Both meat and oil were in perfect condition.

On whaling expeditions, the antibiotic can be introduced into the body of the whale either by an injection into the animal's stomach after it has been shot, or by harpoon shell during the chase.

While antibiotic-preserved whale steaks are for the future, poultry, beef and fish and seafood can now be preserved with antibiotics.



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One method for doing this, called the Acronize process, uses Aureomycin. The American Cyanamid Company holds the patent on this process.

Use of Biostat for the process was announced to the symposium by C. L. Wrenshall of Chas. Pfizer and Co.

Science News Letter, November 17, 1956

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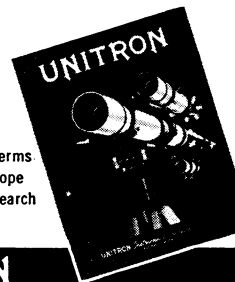
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