NUTRITION

Reason Why Dried Beans Are Hard to Digest Found

➤ THE REASON, or at least one reason, why many people find dried navy beans hard to digest has been discovered, together with a remedy, by Dr. Donald E. Bowman of the University of Indiana Medical School. (*Science,* Oct. 1)

The oil in the beans, Dr. Bowman found, slows down digestion of their starch content. Starch impregnated with butter, lard or olive oil is completely digested by the pancreatic enzyme, amylase, in half an hour. Bean oil, however, slows this digestion to 48 hours and then the digestion is not complete.

Treating the beans with yeast is the remedy Dr. Bowman suggests for overcoming the digestion difficulty.

Other beans besides dried navy beans, particularly soybeans now slated for a prominent place in the diet, may have their digestibility affected by the oil in them. Dr. Bowman is now studying the matter in further detail.

Science News Letter, October 16, 1943

MEDICINE

Infantile Paralysis No Bar to Motherhood

➤ MANY EXPECTANT mothers must have been wondering, during this year's infantile paralysis outbreak, what would happen to themselves and their babies if the disease struck them before the baby's birth.

The answer is reassuring. In most cases the mothers will have their babies in the normal way and the babies will be normal. They will rarely, if ever, be born with infantile paralysis. Fresh evidence for this appears in a report of Dr. Paul H. Harmon and Dr. Archibald Hoyne, of Sayre, Pa., and Chicago. (*Journal, American Medical Association,* Sept. 25)

Of course, some mothers have a more difficult time than others during the birth of a baby. Some babies are born with congenital defects, such as club feet. These things may happen in the case of a mother who has infantile paralysis when her child is born, or in the case of a mother who has had the disease a year or several years before she has a baby. They are not the result of the infantile paralysis, however.

In one case reported by Dr. Harmon and Dr. Hoyne, a mother stricken with infantile paralysis three months before her baby was to be born lost the baby. In this mother some of the breathing muscles were affected by the disease. She recovered after spending some time in an iron lung, but the baby was born dead. Apparently during the period the mother was having difficulty in breathing, she did not get enough oxygen to supply her own needs and those of the unborn child and it was asphyxiated. Even when such a condition develops in the mother it may be possible in some cases to deliver the baby before it has been affected, though in this instance it was not.

This case gives further support to the view that the virus causing the disease in the mother does not pass from her body to the baby's. Even though this child was born dead, the virus could not be found in the spinal cord. Although not positive proof, the negative finding could mean that the virus did not reach the baby.

Science News Letter, October 16, 1943

NUTRITION

Food Biggest Item in Cost of Raising a Child

➤ FOOD is the biggest single item in the cost of raising a child, statisticians of the Metropolitain Life Insurance Company state.

For parents of moderate means, with an annual income of $2,500 for a family of from three to six persons, the cost of feeding a child from birth to age 18 is $2,360 for a boy, $2,180 for a girl. The figures are based on 1935-1936 prices.

Science News Letter, October 16, 1943

MEDICINE

Influenza B Virus Larger Than Influenza A

➤ A DIFFERENCE in size between the particles of influenza A virus and influenza B virus has been discovered by a group of scientists, headed by Dr. Joseph W. Beard, working at Duke University School of Medicine and the Respiratory Diseases Commission Laboratory, Fort Bragg, N. C.

Influenza B virus of the Lee strain "appears to be significantly larger" than influenza A virus of the Puerto Rico strain, they report. (*Science,* Oct. 1)

Chemical studies indicate that the virus consists of lipoprotein with which is associated nucleic acid of the desoxypentose type.

Working with Dr. Beard were: D. G. Sharp, A. R. Taylor, I. W. McLean, Jr., Dorothy Beard, A. E. Feller and John H. Dingle.

Science News Letter, October 16, 1943

IN SCIEN

ENTOMOLOGY

Food-Infesting Insects Active During Blackout

➤ INSECT SABOUTEURS of stored food products love the blackout hours to do their evil work, observations in an English flour mill by R. F. Ewer of Richmond, England, appear to indicate. (*Nature,* July 31) He tells of counting the larvae and adults of three species of flour-eating insects that appeared on sacks of spaghetti which had been stacked up in the mill for fumigation.

Activity on the part of one of the three species rose to a peak near midnight. Another species was most active just before the end of the blackout period, about two hours before the mill began its day's grind.

Only one of the pests was a daylight operator, showing its greatest activity in the twilight period between shutting-down time and the beginning of the blackout period.

Science News Letter, October 16, 1943

CHEMISTRY

New Anti-Corrosive Protects Zinc and Cadmium

➤ A NEW anti-corrosive chemical material to protect zinc and cadmium surfaces will release much essential chromium for important military uses. Chromium has extensive uses in war equipment, particularly in alloy with other metals.

This low-cost protective material forms a coating so thin that it does not alter the dimensions of the parts to which it is applied. It is not injured by bending, twisting or forming, it is claimed. It has been tested by the Army and is reported to be found satisfactory for protection against salt spray and high humidity at high temperatures.

The new protective material is a product of the Rheem Research Products laboratories located in Baltimore. Zinc or cadmium surfaces to be treated are dipped in the chemical solution. Chemical action takes place. On the zinc surface a complex chromate of zinc, olive drab in color, is formed. A similar action takes place on cadmium. Drying requires less than a minute.

Science News Letter, October 16, 1943

CE FIELDS

MEDICINE

Army Typhoid Vaccine Better Now than in 1917

➤ THE AMERICAN soldier today is much better protected against typhoid fever than his doughboy father was in World War I, it appears from a report by Col. George R. Callender and Maj. George F. Luippold, of the Army Medical and Sanitary Corps respectively. (*Journal, American Medical Association,* Oct. 9)

Because there has been some doubt expressed as to whether the triple typhoid vaccine given American troops would protect them against the strain of typhoid fever germs in the Middle East, special tests of this point were made. The results show that the vaccine currently used in our Army is quite as effective as that manufactured in the Middle East from the strain of typhoid germs prevalent there.

The typhoid and paratyphoid fever rates in the present Army are lower than during World War I and "for the mobilization years 1940-1942 are insignificant," even in the face of a rise in rates for diarrheal diseases which are usually accompanied by an increase in typhoid.

Science News Letter, October 16, 1943

NUTRITION

Little Vitamin C In Winter Tomatoes

➤ THOSE VICTORY gardeners and housewives who put up a good store of canned tomatoes for the coming winter have more reason to congratulate themselves than they probably realized. Not only will they have tomatoes when fresh ones are scarce. The tomatoes or tomato juice in their cans will supply almost twice as much vitamin C as the fresh tomatoes one gets in market in late winter and early spring. The commercially canned tomatoes also have this extra vitamin richness.

Because tomatoes are such an important sources of vitamin C, Dr. Arthur D. Holmes, Carleton P. Jones and Dr. Walter S. Ritchie, of Massachusetts State College and Agricultural Station at Amherst, investigated the vitamin content of tomatoes bought in February, March and April. The tomatoes were bought in small packages or by the pound, as the housewife buys them, at independent and chain grocery stores.

The average vitamin C content of these tomatoes they report (*New England Journal of Medicine,* Sept. 16) was only 8.8 milligrams per 100 grams, which is about one-third that of summer tomatoes, and slightly over half that of home and commercially canned tomatoes, which averaged 13.8 to 15 milligrams per 100 grams.

Put in another way, the person who relied on fresh tomatoes in winter for his vitamin C would have to eat from three-quarters of a pound to six and one-half pounds of tomatoes each day to get the 75 milligrams of vitamin C recommended by the National Research Council for the daily requirement of this vitamin. The cost might vary, according to where the tomatoes were bought, from 17 cents to $2.18 with an average of 72 cents. By comparison, it was found in an earlier study that the same amount of the vitamin could be obtained from oranges purchased in late winter and early spring at an average cost of less than five cents (4.8).

Science News Letter, October 16, 1943

MEDICINE

TB Protection May Come From Extract of Dead Germs

➤ PROTECTION against tuberculosis may come from a paraffin oil extract of dead tuberculosis germs, it appears from a report of Dr. Nine Choucroun of Cornell University Medical College. (*Science,* Oct. 8)

Dr. Choucroun's work started in Paris, was interrupted by the war in June, 1940, and resumed at Cornell in Dr. Morton Kahn's laboratories.

The results so far apply only to experimental animals and give what Dr. Choucroun terms "only an indication" of protection against tuberculosis.

The paraffin oil extract of dead tuberculosis germs contains a toxic substance capable of killing guinea pigs and also a substance which sensitizes them to tuberculin, he has found. Those animals which did not die and remained sensitized to tuberculin were able to fight off injections of living tuberculosis germs, remaining well under doses which caused non-sensitized animals to develop tuberculosis and die.

This gives the indication that the sensitizing substance may be able, if it can be separated from the toxic substance, "to protect animals against tuberculosis."

Science News Letter, October 16, 1943

STATISTICS

Accident Death Rate Lower in This War

➤ CONTRARY to expectations, the current war has not brought about an increase in the death rate from accidents, although during the war years of 1917-1918 the accident death rate rose sharply to a very high level, the Metropolitan Life Insurance Company reports. (*Statistical Bulletin,* September)

The death rate from accidents among industrial policy holders rose from 67.3 per 100,000 in 1915 to 73.2 in 1916, a year of preparedness for war, and to 76.5 in 1917, the year we entered the war. The increase for the two years represents nearly 14%.

"Fear that history would repeat itself was strengthened," the report states, "when in 1941, also a year of active preparation, the rate rose from 46.3 in the previous year to 49.9 per 100,000, an increase of 8%. In 1942, however, the rate actually declined somewhat; moreover, it has shown little tendency to rise so far this year.

"One outstanding feature of the situation today is that even in the vastly expanded chemical and explosives industries, the largest number of lives lost in a single accident since Pearl Harbor was 54, whereas between April 1917 and November 1918 there were three accidents in explosives plants, each taking around 100 lives."

Science News Letter, October 16, 1943

CHEMISTRY

Motor Vehicles of Future May Run Without Gasoline

➤ LOOKING to a day when gasoline will be a permanent rarity in the United States and probably in the whole world, Dr. Gustav Egloff and Prudence Van Arsdell of Universal Oil Products Company described, before a meeting of the American Chemical Society, progress already made in the development of motor vehicles that will run without gasoline.

These are the producer-gas units, mostly trucks and buses but including many motor cars as well, that already ply the streets and roads in oil-less lands. They convert wood chips, charcoal and a number of other solid fuels into gas, which is then fed into internal combustion engines. Dr. Egloff estimated that even now there are more than 800,000 such vehicles in operation.

Science News Letter, October 16, 1943