

Diet and The Duration of Life

BY JAMES A. TOBEY*

The span of human life has been set by the psalmist at three score years and ten. A more generous biblical writer seems not to have been satisfied with so ephemeral a human existence and so in the Book of Isaiah (LXV:20) he offers us an additional thirty years, saying, "the child shall die an hundred years old." Both of these declarations have become literally true in numerous individual instances, but neither is now or ever has been correct with respect to any race as a whole. Nowhere as yet has the average span of life of any people attained even to seventy

dairy regions of that country are always vastly superior to the more numerous natives who live only on cereal grains.

A climate which is continually hot does not seem to have a deleterious effect on physical welfare when nutrition is good. Arabia is an inferno, considerably worse with respect to temperature than the Bahamas, but the Arabs now have, and, so far as observed, always have enjoyed a most excellent physique. Even Napoleon's surgeon-general, on the great commander's Egyptian campaign, described these lean, sinewy hawks of the desert

of the pastoral Arab is mostly milk, supplemented with only a moderate amount of meat, cereals, and dates. The milk is that of goats, camels, and sheep, and because of the intense heat it is soured at once and eaten in the form of curds.

Throughout wide areas in Asia milk is also the staple article of diet of many races who lead a precarious existence. The Mongols must live on milk or starve. They do not starve, but are wiry and vigorous, though a thin race. The Tartars at times live almost exclusively on mare's milk and thrive on it. Marco Polo on his peregrinations was much impressed by a milk wine which has been manufactured by the Tartars since the Thirteenth Century.

The dominant and aggressive peoples of the world have always been those whose nutrition has been of the best. It is related of David that he was carrying ten cheeses for the nourishment of his cohorts when he met and conquered the redoubtable Goliath. The conquerors have always been users of dairy products in abundance, and not of grasses and grains, nor of meats. The beef eaters, so-called, of England have also been drinkers of milk as well as of more potent beverages. The Scandinavian countries, where the span of life is so much greater than ours, have always been noted as dairy countries, and the same is true of Holland, another country where the average life is longer.

That the right food can actually extend life has been demonstrated by a series of interesting investigations conducted by Professor Henry C. Sherman of Columbia University. For about ten years in his laboratories feeding experiments have been under way on that well known laboratory animal, the white rat. The life of the white rat is relatively short and his nutritional foibles resemble those of man, so that studies on these docile rodents offer material of real scientific value, applicable to human conditions.

"We have recently completed a somewhat extended experiment in which the influence of a single change in the food supply upon the longevity of rats of identical heredity, maintained under conditions uniform in all respects, appears to have been fully demonstrated," Professor Sherman reported to the National Academy of Sciences last November. In this study about 400 rats were kept in about equal numbers on two different dietaries. One diet, containing a mixture of one-sixth dried whole milk and five-sixths ground whole wheat, with a little salt, was considered adequate, for already twenty-one generations of rats had lived and thrived on it. The other diet was not only adequate but better, for it contained one-third whole milk powder and only two-thirds ground whole wheat. The

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years, but there are definite indications that the proverbial length will eventually be reached and probably exceeded.

The nutrition of the race has been demonstrated to exercise a definite effect on longevity.

called "newer knowledge of nutrition" is the most recent of the sciences, for it has been evolved almost entirely within the Twentieth Century, but it is one of the most potent in its effect on the general welfare.

What we eat or what we do not eat throughout life has a definite effect on how long we live. This is no idle statement but is supported both by human experience and by scientific investigation. If you delve into history you will find that certain races have been more vigorous and long-lived than others, a fact which can not be explained on a purely biological basis. It has been food selection rather than natural selection which has caused this phenomenon. As has been pointed out by Professor E. V. McCollum, of the Johns Hopkins University, *the pastoral peoples of the world who have had possession of many dairy animals and whose diet has consisted mainly of the products of these animals have, without exception, always displayed the finest physical development and the greatest tendency toward longevity.*

In a remote part of the Himalayas is an isolated race with magnificent physique, the members of which seem to have found the fountain of youth, for they retain until late in life the characteristics of youth. Since gland transplantations have not yet made their way into this secluded part of the world, the explanation for this unusual virility and fertility is to be found mainly in diet. As reported by Dr. Robert McCarrison, of the British Medical Service, these people subsist on a frugal diet, consisting mostly of goat's milk and vegetables. Another British scientist in India, Dr. D. McCay, has found that the pastoral Indians of the few good

as more perfect in physical structure than most Europeans.

There is an Arabian proverb to the effect that he who has health has hope and he who has hope has everything. The Arabs are fortunate in that they have something besides hope which contributes to their health, and that something is milk. According to various writers, the fare

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The American Mercury: July, 1929

present tendency will make men reluctant to enter a profession where women outnumber them; it is said that women will soon be employed as pharmacists everywhere, in pharmacies, laboratories, hospitals, maternity houses, etc., and may, more advantageously than men, and upon smaller net profit, manage drug stores of their own.

Arguing along this line, those who fear woman's competition in our profession say that graduate women pharmacists accept pharmacists' positions in drug stores and doctors' offices at salaries out of the question for men who don't renounce the desire to marry and support families. On the contrary, young women who are pharmacists can accept these positions and hold them one or two years, living quite decently on their small salaries until they marry—as they always do—and the burden of their maintenance falls upon their husbands. If, too, as is frequently the case, the husband of one of these young pharmacists is a doctor, when both keep on with their respective professions the advantage is still greater.

If in other professions, as that of law, marriage is an impediment to woman, in pharmacy it is not. In the Philippines, where Spanish customs and social conventions are still influential, the woman, married and perhaps a mother, who appears as an attorney in one court and another, defending or prosecuting delinquents, resolving political disputes and engaging in similar activities pertaining to the life of a lawyer, is not looked upon with unmitigated favor. On the contrary, the mother who is a pharmacist may, it seems, have her children with her in her office, attend her other domestic duties too, and the public of the Philippines will think it all quite correct—even view it with genuine approval.

In rebuttal of all this, others say that if women who are pharmacists accept positions at low salaries, men do too, that the whole question is one of supply and demand, or that it is a result of the disruption and reorganization of social classes: both sexes are culpable if salaries are too low, and not the fair sex alone. "We," say the women, "are no obstacle to a strong compact union for mutual protection concerning salaries sufficient to a decent livelihood. Our teachers in the classroom inculcate this principle; we use the same materials and instruments as men in the common laboratories, and we are examined as to fitness to practice pharmacy along with men, by an examining board which, it goes without saying, is entirely made up of men; and so we feel we have the same rights as men to use our abilities in the struggle for existence."

TOBACCO REVIEW

Alhambra Cigar and Cigarette Manufacturing Co.

RAW LEAF:—According to the latest information there still remain about 50,000 quintals of the 1929 Ysabela crop in the hands of the farmers. Prices in Manila have not gone up in proportion to what was paid in the Ysabela province. The exportation of cheaper Cagayan grades maintains a satisfactory volume. Comparative figures for August are as follows:

Rawleaf, Stripped Tobacco and Scraps	Kilos
Australia	1,352
China	2,849
Czechoslovakia	840,318
Hongkong	42,913
Japan	120
Java	2,200
North Africa	26,234
North Atlantic (Europe)	109,661
Spain	1,152,576
Straits Settlements	615
United States	114,273
Uruguay	41,540
	2,334,651
July, 1929	3,010,653
August, 1928	2,043,652

CIGARS:—Shipments to the United States, while somewhat larger than in July, still lag considerably behind the corresponding 1928 period. A great part of these exports leave some

of the manufacturers but a very close margin of profit.

Statistics of cigars shipped to the United States compare as follows:

August 1929.....	about 15,060,000
July 1929.....	14,848,479
August 1928.....	18,929,943

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result of doubling the amount of milk was a gain of exactly 10% in the span of life for both males and females. The acid test of statistical analysis indicated that there was not more than one chance in a hundred for error due to accident.

Translated into human experience, this study indicates that at least six years could be added to the span of life by means of proper nutrition. The fluid in the fountain of youth is pure milk, and nutrition, in proper combination with other sanitary and hygienic factors, can actually promote longevity.

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REVIEW OF THE HEMP MARKET

By L. L. SPELLMAN

Macleod and Company



This report covers the Manila hemp market for the month of August with statistics up to and including September 2nd, 1929.

U. S. GRADES:—The market in New York opened dull with a weak tendency and shippers anxious to sell with buyers holding off. Selling prices were nominally on the basis of:

D, 13¼ cents; E, 12¼ cents; F, 11¼ cents; G, 8¾ cents; H, 7¾ cents; I, 11¼ cents; J1, 10¼ cents; S1 11¾ cents; S2 10¼ cents; S3, 9¾ cents. The market continued dull and weak with shippers endeavoring to sell even at lower prices, the result being that by the middle of the month prices had declined to: D, 13¼ cents; E, 12½ cents; F, 11½ cents; G, 8½ cents; H, 7½ cents; I, 11¼ cents; J1, 10½ cents; S1, 11¼ cents; S2, 10½ cents; S3, 9½ cents. Sales during the last half of the month were very few and prices continued to decline; the market ending weak with sellers of E at 12¼ cents; F, 11¼ cents; I, 11 cents; S1, 10½ cents; S2, 10¼ cents; S3, 8½ cents; G, 8½ cents. There were also sellers of Davao F at 11½ cents; Davao I, 11¼ cents; Davao J1 10½ cents and Davao G at 10 cents.

In Manila the market was quiet on the first of the month with shippers paying the following prices: D, ₱30.50; E, ₱28.50; F, ₱26; G, ₱18.25; H, ₱15; I, ₱25; J1, ₱22; S1, ₱25.50; S2, ₱24; S3, ₱18.75. Receipts were very much larger than could possibly be expected during the past month with the natural result that prices continued to give way and the Manila market closed depressed with a few buyers at the following nominal prices: D, ₱28; E, ₱26; F, ₱24.75; G, ₱17.25; H, ₱14; I, ₱24; J1, ₱21.25; S1, ₱24; S2, ₱22.50; S3, ₱17.75. These prices showed a considerable decline from the beginning of the month and most of the houses are showing very little interest in hemp.

U. K. GRADES:—The U. K. market opened quiet with buyers holding off and nominal prices ruling as follows: J2, £38.10; K, £33.5; L1, £33.5; L2, £30.10; M1, £30.10; M2, £27; DL, £27; DM, £22. Toward the middle of the month the market became dull with buyers rather than sellers at the following quotations: J2, £38; K, £33; L1, £33; L2, £30.5; M1, £30.5; M2, £26.15; DL, £27; DM, £22. The excessively large receipts of hemp had the usual depressing effect on the London market with buyers only being interested for their immediate requirements. The market continued dull and inactive with a downward tendency until at the end of the month the market was stagnant and very depressed owing to heavy receipts. The following were nominal quotations for distant shipment: J2, £36.10; K, £31; L1, £31; L2, £28; M1 £28, M2, £25.10; DL, £25.10; DM, £21.

In Manila the market for U. K. grades on the first of the month was quiet with nominal prices as follows: J2, ₱17.75; K, ₱14.75; L1, ₱14.75; L2, ₱13.25; M1, ₱13.25; M2, ₱10.75; DL, ₱10.75; DM, ₱8.75. Between the first and the middle of the month there was a slight improvement in local prices but they again eased off with the following quotations: J2, ₱18; K, ₱15; L1, ₱15; L2, ₱13.50; M1, ₱13.50; M2, ₱11.25; DL, ₱11.25; DM, 9. The market continued quiet for a few days but towards the end of the month became depressed and ended up very depressed with few buyers at the following prices: J2, ₱16.75; K, ₱14; L1, ₱14; L2, ₱12.50; M1, ₱12.50; M2, ₱10.25; DL, ₱10.25; DM, ₱8.

JAPAN:—This market bought a fair quantity of hemp during the earlier part of the month but their prices were not attractive and the tendency of the market has been very weak during the