Role of Sugar Cane (Grass) in Human Nutrition

by Martha R. Jones

Restore greens and grasses to diet, urges Dr. Jones

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BY MARTHA R. JONES, Ph.D.

Sugar cane is a variety of grass. In the 1948 Year Book of Agriculture it is stated: "Young pasture herbage grown on fertile soil seems to have properties beyond those ordinarily determined by analysis." ... "Next to the divine profusion of water, light and air, the three great factors that make existence possible, may be recorded the beneficence of grass. The primary form of food is grass. Grass feeds the ox; the ox nourishes man, man dies and goes to grass again; in more senses than one, all flesh is grass. It yields no fruit in earth or air, and yet should its harvest fail for a single year, famine would depopulate the world."

How the fertility of the soil is reflected in the composition of the grass grown on it is told by the owner of a farm located in a valley at the foot of the Cascade Mountains. Grass from this farm was fed to racing horses. "The results were fantastic," he said. "Horse after horse that was below par hit the winners' circle. One horse after being put on it for 30 days broke the world's record."

From the opposite side of our country comes the same story — with a difference. Stud farms—famed for their champion racers—now are producing "also rans," and are seeking more fertile pastures elsewhere. In this same area, sorghum cane once flourished and the syrup made out of its juice (grass) was "larrupin." Now it is no more because the soil has lost its fertility, it is admitted.

Top-quality grass grown on fertile soil is a complete food for some of earth's largest and strongest beasts of burden. Sick animals select it with an uncanny nicety and eat it voraciously. The newlyborn calf seeks it avidly—instinctively knowing it contains something that is lacking in the mother's milk—knowledge that modern science has not yet discovered. The famed scientist, the late Dr. Charles Kettering, is quoted as saying, "When we have learned why grass is green, we shall have discovered the

secret of life."

We have not yet learned why grass is green, but we do know something of the green of the grass-chlorophyll. Chemically, we know chlorophyll is essentially organic magnesium. It has been reported that magnesium deficiency in the diet of rats makes them behave crazily-a type of emotional disturbance that simulates certain abnormal behaviors in man. This makes one wonder about Nebuchadnezzar, king of Babylon some 500 years B.C. He lost his reason and was forced to live in the fields with his oxen, and to eat grass. Soon his sanity was restored and "excellent majesty addthe Bible tells us. Nebuchadnezzar probably lived too sumptuously for his own good. Perhaps he would not eat anything so lowly as "greens." Neither do we, generally speaking, and one in 10 of us is emotionally disturbed, it is reported.

Big, tall, juicy stalks of sugar canejust right for chewing-abounded in Hawaii in the old days before white visitors went to the islands. It was chewed prodigiously by young and olda factor, no doubt, in the development of the broad dental arches, perfectly aligned, and the beautiful, decay-free teeth of the natives. In 1778 there were 400,000 of them-second to none in physical fitness, it is said. A day's journey of 30 to 50 miles over rough mountain trails was accomplished without fatigue, says legend-stalks of freshly cut sugar cane providing their only food and drink. By 1928 the picture had changed. Statistics revealed a population of 20, 000 pure-blooded natives. Their infant death rate was staggering. Babies were born with poor physique, high susceptibility to respiratory and other diseases, and teeth so defective that they often disintegrated as they erupted leaving two rows of abscessed roots which could not have chewed sugar cane had it been

Restoration of native foods (including milk with a sugar cane-lemon syrup added in the diet of several hundred babies and small children in a demonstration nutrition clinic changed the picture dramatically. Sickly babies became healthy huskies, defective teeth hardened and became resistant to decay and a towering infant death-rate tobogganed

What is there in grass that makes it so vital for life? Probably some of all the essential nutrients—presence and amounts depending upon composition of the soil upon which it is grown. Undoubtedly there are "properties beyond those ordinarily determined by analysis," as the controversial "X factor" discovered by the late Dr. Weston Price in the milk of pasture-fed cows.

Although sugar cane is a variety of grass, its juice, only is edible by man, and it is not a complete food. Besides carbohydrate (sugar) it contains a wealth of grass nutrients-enzymes, vitamins, chlorophyll, steroids, albuminoids, minerals, trace elements, etc., in symbiotic relationship-that is, they work together as a unit. Because a mineral like calcium, essential for bone-building, etc., is present in liberal amounts in a man-made mineral-vitamin mixture, it does not follow that it can be utilized by the body tissues any more than ocean water can be used for drinking purposes. "Water, water everywhere and not a drop to drink." Modern science has not yet learned how to "juggle the little things" involved in successful nutrition, or to duplicate in the laboratory "properties beyond those ordinarily determined by analysis" which, in the final analysis spell the difference between buoyant health and half living, and all too often, life and death.

Notwithstanding the harsh treatment sugar cane juice has undergone in its conversion into sugar and molasses, some of its life-essential nutrients still survive, even in its most degraded (nutritionally speaking) fraction-blackstrap. With only 1/100th part of the antistiffness (Wulzen) factor of the original cane juice remaining in blackstrap, it still was found effective in resolving calcium deposits in the muscles and joints of guinea pigs, it was reported from the University of Oregon. Similarly, Shaw of the Harvard School of Dental Medicine found that it contains an unknown factor which inhibits tooth decay in rats-in fact, was the

only carbohydrate food studied that did so. Originally used as a cattle feed and fertilizer during the early days of sugar manufacture, its rise to its present status as a health food has been spectacular.

Sugar cane juice and other grasses and greens are exceptionally rich in potassium. Potassium salts, says Dr. Hans Selye of Toronto, prevent coronary thrombosis in infarct-susceptible rats under stress. They also prevent cancer, British Surgeon Dr. Forbes Ross reported some 50 years ago. He attributed the immunity of natives in the West Indies to cancer to the high potassium content of the sugar cane they chewed prodigiously.

It is significant that native peoples throughout the world whose diet consists of greens, grasses, unrefined grains and other home-grown foods still enjoy an immunity to cancer, arthritis, polio, multiple sclerosis, muscular dystrophy, circulatory and other diseases which beset today's enlightened generation, although they are victims of age-old scourges which stem largely from lack of sanitation.

Said the famed nutritionist, the late Dr. Tom Spies, "Our chief medical adversary is a disturbance in the inner balance of the constituents of our tissues which are built from the air we breathe, the water we drink and the food we eat."

If we remove the enzymes, vitamins, minerals, trace elements, etc., which are essential for life from our foodstuffs—as we have in the manufacture of sugar and wheat, corn and other grain products—and do not know how to put even a few of them together again so as to give the reconstituted foods those vital "properties beyond those ordinarily determined by analysis," which spell the difference between health and disease, what can we expect?

Our big, fat, soft babies are developing into nervous, restless, aimless, empty youths with teeth ravaged by decay; then into ailing oldsters. Solution of the problem is obvious and simple, but not easy. Restoration of really green greens and old-fashioned sugar and sorghum canes syrups—pure, unadulterated and grown in fertile soil—to their time-honored place on the American dining table would make a contribution of the first magnitude to today's health, the writer believes.