

November 2003

Western DairyBusiness

Milk Matters – a column by Joseph O'Donnell

Milk is still #1 for meeting the nutrition needs of the global population

Look around you – how many people are overweight and have diabetes or cardiovascular issues? Our genetics haven't changed, has our diet?

The survival of any civilization requires nutritional resources adequate to supporting proper growth and development as well as fending off disease. Given that humans require a great variety of nutrients, meeting the nutritional needs of a society is a heady task. The United States seems to have that under control. Over the years, we have become so good at food production and distribution that we take nutrition for granted. This is a fairly recent phenomenon. Less than a century ago, nutrition deficiency diseases such as rickets, goiter, scurvy, pellagra and others were not rare, especially in underprivileged areas of the country. This malnutrition opened the door to infectious disease.

With proper nutrition, sanitation, vaccines and antibiotics, common bacterial infections are not what they once were. America's prosperity growth in the mid-century brought with it rapid advances in food production, food formulation and distribution. Not only could the country produce much more food than it needed, its scientists could tear food apart and put it back together in a new form to meet the new needs of American kitchens and dinner plates. Food became tastier, easier to digest and abundant

Where did that take us? The same technology that allowed us to keep our bellies full also required less physical work to do so. As a result, we're fat and out-of-shape and looking again for nutrition to improve our health.

Whether we are trying desperately to find food or selecting from an abundance of food sources, the concept of *malnutrition* is at the root of the disease and untimely deaths associated with both sides of the equation.

The difference between the malnutrition of a century ago and what we suffer from today lies in the kind of diseases manifested. In the last century we saw the classic nutrient deficiency diseases mentioned above. Today we see more heart disease, stroke, diabetes, obesity and colon cancer – all often associated with the state of our body weight and physical fitness.

Left to its own devices, nature understands the importance of nutritional balance. When we don't get enough variety of foods in our diet we develop deficiency diseases. This points to the question – are diseases like diabetes the result of a nutritional deficiency much like scurvy? Scurvy is associated with the lack of vitamin C. Perhaps diabetes is the result of an imbalance of calories and other nutrients. We have to ask why, as our genetics haven't changed, is diabetes becoming such an epidemic? If it is associated with malnutrition of some kind, we need to find the way out.

Milk has recently been shown to have a significant influence over weight management. While the concept is cutting edge, it's easy to surmise that this is one of the ways nature helps balance nutrition and genetics. After all, milk was designed to deliver nutrition and health to mammals – maybe part of that package includes weight management. As the work to understand the components of milk that deliver specific nutritional benefits unfolds, I suspect we will see that the answer is not some magic bullet but that milk brings balance to an otherwise imbalanced diet.

Even if this is the case, we can't expect Americans to start drinking lots more milk. We need to be proactive in using the same technical resources that gave us all this tasty food to put milk into new products that appeal to consumers so they can benefit from its nutritional balancing powers.

More than 20 years ago, researchers were looking at carbonating milk in order to compete with the multi-billion dollar soda industry. The timing, technology and marketing, however, weren't in place to make it work. Today we see the same industry reeling from attacks by consumer groups charging them with contributing to the obesity and diabetes epidemic affecting our country. These powerful soft drink companies are now directing their attention towards including milk in new formulations. Whether it is carbonated or not, we are seeing more and more beverages with milk as an ingredient. It may be the first sign we're getting back on track to what's important – the nutritional content of what we eat and drink.

While technology is constantly changing – some things remain evergreen. Just like in centuries past, milk is still the place to go if you want to advance the nutritional status of your population.

FYI

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