Food Policy Makers Asked to Consider Dried Fruits Equivalent to Fresh Fruits

Thirteen internationally recognized researchers from the United States, Greece, Turkey, Japan, and the United Kingdom have collaborated on a combined work which recognizes that traditional dried fruits such as apricots, apples, dates, figs, raisins and sultanas, and prunes should be included side by side with fresh fruit recommendations by policy makers around the world.

The paper, entitled Traditional Dried Fruits: Valuable Tools to Meet Dietary Recommendations for Fruit Intake, presented as part of the XXX World Nut and Dried Fruit Congress in Budapest, Hungary on 21 May 2011. Accessible at http://www.nutfruit.org/inc-projects/driedfruits, the paper was coordinated by Dr. Arianna Carughi and outlines the scientific support for considering dried fruits alongside their fresh counterparts.

Dried fruits originate from only a few select areas in the world and are therefore often overlooked by health professionals. However, it is the responsibility of the Dried Fruit Industry, concentrated in these select areas, to build upon the assertions of the researchers, and communicate the nutritional benefits of dried fruits to the rest of the world.

Increasing consumption of dried fruits is an effective way to increase overall consumption of fruits and vegetables. Epidemiological evidence links increased intake of fruits and vegetables with lower rates of obesity and chronic diseases. However, despite campaigns and educational efforts, a significant gap still remains between the recommended amount of fruits and vegetables and the quantities actually consumed by populations around the world.

Dietary advice concerning the health benefits of fruits and vegetables has often overlooked the nutritional value of dried fruits, even though traditional dried fruits provide essential nutrients, such as fiber and potassium, and an array of health protective bioactive compounds. Because they are naturally resistant to spoilage, available year round, easy to store and transport, readily incorporated into other foods, and relatively low in cost, traditional dried fruits serve as a convenient and cost-effective way to increase fruit consumption.

Traditional Dried Fruits: A Definition

Traditional dried fruits are fruits which have had a large portion of their original water content removed. No sugar or fruit juice concentrates are added, and therefore, they retain most of the nutritional value of their fresh counterparts. These dried fruits are very low in sodium and do not contain fats, cholesterol, or added sugars.

As a group, traditional dried fruits are good sources of several essential nutrients, especially potassium and dietary fiber. Potassium intake levels are low among most children and adults, becoming a substantial health concern since increasing dietary potassium can lower blood pressure. Additionally,
Healthy Dietary Patterns

Dried fruits are already included alongside fresh fruits in formal dietary recommendations for Argentina, Australia, Canada, France, Germany, Italy, Sweden, the United Kingdom, and the United States. Policy makers in other countries should follow the lead of these countries to include dried fruits with their recommended guidelines for fruit and vegetable intake.

Dried fruits are common components in several dietary patterns associated with a lower risk of major chronic diseases, including Dietary Approaches to Stop Hypertension or DASH, Mediterranean style dietary patterns, and vegetarian diets. A common feature of these diets is an emphasis on fruits, vegetables, and other plant foods, including dried fruits.

Despite dietary recommendations, statistics show a disparity between fruit and vegetable recommendations and the quantities populations actually consume. For example, a World Health Survey showed that 78 percent of respondents ate less than the minimum recommended five daily servings of fruits and vegetables, while 75 percent of adult men and women in the United States failed to meet the minimum recommended level of fruit intake per day. Though low fruit and vegetable intake is only one of the many risk factors for cardiovascular disease and cancer, its impact is significant. The World Health Organization estimates that globally, roughly 5 percent of deaths are attributable to low fruit and vegetable intake.

By promoting increased intake of dried fruits as part of the big push to increase consumption of fruits and vegetables, dried fruits have the potential to bridge the gap between actual and recommended intakes of fruits and vegetables. Given the importance now placed on dietary intervention to improve the global health burden, this represents a significant opportunity for the Dried Fruit Industry.

WHAT THIS MEANS FOR THE DRIED FRUIT INDUSTRY

An opportunity for the Dried Fruit Industry lies in the fact that globally, average consumers fail to achieve the minimum recommended intakes for fruits and vegetables. Using the evidence outlined by the paper, the Dried Fruit Industry can:

1. Demonstrate that dried fruits are as good as fresh fruits in terms of both health benefits and convenience; and secondly

2. Promote increased consumption of dried fruits. Where fresh fruit has thus far failed to change habits for a majority of the population, dried fruits may be an alternative to confectionary/cakes/biscuits, used as school/sports snacks, or as a low cost option.
Changing Perceptions of Dried Fruits

Several misconceptions have perpetuated the idea that dried fruits may be less healthy than their fresh counterparts. New research clarifies past concerns regarding sugar concentration, oral health and vitamin C in order to return dried fruits to the positive perception they deserve.

Sugar Concentration: In terms of sugar concentration, when compared weight for weight, dried fruits appear to have higher sugar concentrations than fresh fruits. This has been a negative issue for dried fruits ever since health concerns around sugar started to influence public health policy and consequent dietary advice.

One of the common problems encountered with comparing dried foods on nutritional grounds is the common practice of equating on a weight for weight basis, for example, per 100g. Not surprisingly, the sugar content of dried versus fresh fruits on this basis appears disproportionately high, contributing to the mixed messages about the sugar concentration of dried fruits.

When portion size and water content are taken into account, then natural fruit sugars and calories become equal for fresh and dried fruits.

The latest nutritional research compares fresh and dried fruits based on typical serving sizes, not equal weight measurements of fresh fruits compared to dried fruits. Using the definition for traditional dried fruits, traditional dried fruits are the equivalent of their fresh counterparts with the water removed. This means 100 grapes should equate to 100 raisins, instead of comparing 100g of grapes with 100g of raisins. Therefore, a 40g serving of traditional dried fruit equals approximately four times the weight in fresh fruit, with exact weights varying with fruit and drying method.

Additionally, recent studies show that traditional dried fruits have a low to moderate glycemic and insulin index and a glycemic and insulin response comparable to fresh fruits, possibly due to the presence of polyphenols, phenols, and tannins. When using industry dry-down ratios for fruit, just one 40g serving of dried fruit would make a significant contribution towards meeting the recommendations for fruit and vegetable intake.

<table>
<thead>
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<th>Approximate Industry Dry-Down Ratios</th>
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<tr>
<td><strong>FRESH</strong></td>
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<tr>
<td>Mediterranean Apricots 2.5-3.5 kg</td>
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<td>California Plums 3 kg</td>
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<td>Calimyrna Figs 3.3 kg</td>
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<td>Grapes 4-4.25 kg</td>
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Dried Fruits and Oral Health: Dental health advice was once based on the perception that sweet and sticky foods caused tooth decay, making dried fruits a target. However, new evidence demonstrates the contrary position. Dried fruits may in fact promote oral health.

Sucrose is by far the most cariogenic of sugars and most dried fruits contain minimal amounts of sucrose, being high in the less cariogenic sugars fructose and glucose. Raisins have been shown to block the adherence of bacteria to experimental surfaces, and dried fruits are less retentive than other commercially available snack foods. Research on raisins and prunes confirms that they contain certain bioactive compounds with antimicrobial properties, capable of inhibiting the growth of bacteria that cause cavities and gum disease.

Vitamin C: At one time, the fact that dried fruits do not provide vitamin C was seen as a negative. However, intakes of vitamin C in the United States and industrialized countries already meet or exceed requirements. The Dietary Guidelines for Americans conclude that it is unlikely that vitamin C is of major public health significance for the vast majority of healthy individuals in the US. This is most likely because children and adolescents in the US and other industrialized countries consume more than half their fruit intake as fruit juice. Unfortunately, while fruit juice provides potassium and vitamin C, it lacks much of the fiber of whole fruit. Including dried fruits alongside fresh fruits in dietary recommendations expands the range of nutrients available to the population, particularly fiber and potassium, which would be especially beneficial to a majority of people.

Highlighting the Appealing Characteristics of Dried Fruits
Aside from sound scientific benefits of dried fruits for health protection, there are significant other attributes that will help to ensure that dried fruits can appeal to consumers:
- Convenience: Enviable shelf life; easy storage; portability; no special packaging; minimal seasonality issues; naturally resistant to spoilage; relatively low cost.
- Transportability: With the majority of water removed, dried fruits have the advantage of being considerably lighter, less perishable and hence easier and cheaper to transport than fresh fruits.
- Taste and Versatility: Naturally sweet snack foods can be eaten directly or used in cooking without loss of texture/ form; a healthy alternative energy snack.
- Lower Cost Fruit Solution: Dried fruits are ideal in developing countries and those in poverty where fresh fruits remain price-prohibitive or not readily accessible.
- A Place in History: Historically, dried fruits were prized foods recognized for their stability and energy. Documented through the centuries, from as early as 1700BC in Mesopotamian cuneiform recipes and extremely popular with the Romans, dried fruits were staple foods for civilizations across the Middle East, the Mediterranean and Asia. As such it is no surprise that dried fruits occupy a place in religious and other holiday menus across the world.

Education on the nutritional and health attributes of dried fruits is needed to overcome the perceived disparity between dried and fresh fruits, and to increase consumption of dried fruits on health grounds. Communicating the need for increased fruit and vegetable consumption can simultaneously increase awareness of the many benefits of eating dried fruits.

In Conclusion
Despite campaigns and educational efforts, a significant gap still remains between the recommended amount of fruits and vegetables and the quantities actually consumed by populations around the world. Because they are naturally resistant to spoilage, easy to store and transport, available year round, readily incorporated into other foods, and relatively low in cost, dried fruits represent an important means to increase overall consumption of fruit, to bridge the gap between recommended intake of fruits and the amount populations actually consume.