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VALUE ADDED PRODUCTS OF BANANA PSEUDOSTEM

SOLAR ENERGY FOR COMBINED HEATING AND COOLING PURPOSES

FOOT AND MOUTH DISEASE

GREEN MANURING-SUSTAINING SOIL FERTILITY IN ACID SOIL

FRUIT AND VEGETABLE BASED SPORTS DRINKS

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ports drinks are the beverages which are prepared to deliver the balanced water, electrolytes, and energy supplements to boost the strength of athletes. Sporting, is always a means

of achieving success over his fellow competitors. The major reasons for discovery of sports drinks for athletes due to loss of body fluid (water)by the process of sweating and a reduction of the body's carbohydrate stores by physical activity are the two majorcauses of fatigue (tiredness) in prolonged exercise and gaming. Sports drinks contain water, sugar and othersweeteners, electrolytes







(e.g., sodium, chloride, and potassium), colors, flavors, preservatives, and sometimes vitamins and minerals. In history the charmis of Sparta country succeeded in Olympic foot race event by consumption of dried fig fruit. Cade in 1972, developed the drink for Gators Florida Football Team. The developed product received national publicity when the Gators beat their opponents in the prestigious Orange Bowl final. This product, known as 'Gatorade', entered the market in 1969 and became the

first to be promoted as a sports drink. In 19th and early 20th century, athletes occasionally drank beer of low alcohol content replenishing water, minerals and energy in the body but ethanoldecreases endurance performance: it inhibits liver glucose output during exercise and affects the handeyecoordination and balance. The sports drink contains three main components such as carbohydrate, fluid and electrolyte.

THE AVAILABLE SPORTS DRINKS IN MARKET

The commonly available sportsdrink in market such as Gatorade, 100 plus, Thirst Quencher,

Accelerade, All Sport, Aquarius, Herbalife H3O Pro, Isostar, RiboBlast.

THE HARMFUL EFFECTS OF SYNTHETIC SPORTS DRINKS

The energy-rich sports drinks may create problems with energy balance and overall nutrient density of the diet. Some athletes reported

that sports drinks cause gut discomfort. They have been shown to contribute to dental erosion due to higher carbohydrate content and Gastro-intestinal upset.

NATURAL FRUIT AND VEGETABLE BASED SPORTS DRINKS

1. Coconut water

The tender coconut water is





botanically called as liquid endosperm. Coconut water's sodium and carbohydrate content is lower than that generally recommended for endurance events, but athletes can combine coconut water with vegetable juices for an excellent balance. This coconut water replenishes the body quickly.

2. Orange juice

Orange juice is the most consumed fruit juice in Europe and around the world. It is obtained from the endocarp of the Citrus sinensis fruit. It contains

several micronutrients such as vitamin C, folate and polyphenols and it contributes 5%simple carbohydrates to the diet. This is highly prepared for body dehydrating sports because it provides the electrolytes.

2. Mixed Sports Drink

Sport drink made with processed oats, cinnamon, orange juice and milk is excellent mix for sports athletes.



Scientists believe that drinking beetroot juice on a regular basis boosts energy, just ahead of a race. The nitrate found in beets opens up the blood vessels, making it easier for the heart to move blood to muscles in need of oxygen.

4. Red Tart Cherries

Red Tart Cherries are rich in antioxidants which help to reduce inflammation and decrease muscle soreness. Various studies reported that they can help in exercise, due to their high antioxidant properties.

5. Glucose Rich Fruit Juices

Pineapple, Mangosteen juices were directly provides the glucose to the body. These juices can replace the costly synthetic glucose use in sports event.

6. Watermelon Water

Watermelon water boasts six times the amount of electrolytes of a standard sports drink and it includes benefits such as L-Citrulline, vitamin C, lycopene

and antioxidants. The electrolyte minerals in watermelons include thiamin, riboflavin, niacin, vitamin B6, folate, pantothenic acid, magnesium, phosphorus, potassium, zinc, copper, manganese, selenium, choline, lycopene and betaine

REFERENCE

- Chavan, R.S., Shraddha, R.C., Kumar, A. and Nalawade, T., 2015. Whey Based Beverage: Its Functionality, Formulations, Health Benefits and Applications. Journal of Food Processing & Technology, 6(10), p.1
- 2. Ashurst, P.R., 2013. Production and packaging of non-carbonated fruit juices and fruit beverages. Springer Science & Business Media.
- 3. Coombes, J.S., 2005. Sports drinks and dental. American journal of dentistry, 18(2), pp.101-104.
- 4. http://www.onegreenplanet.org/natural-health/healthy-sports-drink-alternatives/
- 5. http://www.vegkitchen.com/tips/natural-alternatives-to-sports-drinks/
- 6. https://en.wikipedia.org/wiki/Sports_drink

