Berries

1. **Raspberries are an excellent source of manganese. What is manganese and what does it do for the body?**

   Manganese is a trace mineral that plays an important role in the formation and maintenance of bone and connective tissue. Manganese also plays a role in wound healing and the metabolism of carbohydrates, amino acids, and cholesterol. Some of the best sources of manganese include pineapple, spinach, sweet potatoes, nuts, oats, and berries.

2. **Berries are a leading source of antioxidants, which neutralize free radicals in our bodies. What are free radicals and why is it important to neutralize them?**

   Free radicals are chemically unstable molecules that may cause cell damage, leading to heart disease and cancer. Stress, smoking, and over-exposure to the sun cause an excess of free radicals. Antioxidants in fruits and vegetables may help neutralize free radicals, thereby reducing their oxidative damage.

3. **Blackberries and raspberries are called *aggregate fruits* with *drupelets*. What is an aggregate fruit? What are drupelets?**

   Aggregate fruits are fruits formed by clusters of several smaller fruits, called drupelets. Each drupelet contains a seed.

4. Berries are used to make jellies, jams, and sauces (e.g., strawberry jam, cranberry sauce). What is the main ingredient added to the berries to make jam or sauce? How does it change the food's nutrient profile?

Several ingredients may be added to berries to make jam or sauce, but the main ingredient added is usually sugar. Added sugar increases the caloric (energy) content of any food it is added to. For instance, a 1/2 cup of raw strawberries provides 23 calories, whereas a 1/2 cup of strawberry jam can provide between 320-480 calories (depending on the recipe and/or brand product).

Sources:
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