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Healthy Bugs

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Bananas, oats and onions are rich in healthy fructose polymers.

Growing Healthy Bugs

BY WINSTON J. CRAIG

Prebiotics improve the health of your colon.

A newly discovered family of carbohydrates has attracted considerable attention, due to its reported health-promoting properties. These non-digestible food components are found in a number of commonly eaten foods including asparagus, bananas, artichokes, garlic, onions, leeks and whole grains such as oats, wheat and barley. Fructo-oligosaccharides, or FOS for short, consist of short and medium chains of fructose, the sugar commonly found in many fruits and honey.

FOS are classified as prebiotics since they have the ability to selectively promote the growth of healthy intestinal bacteria, such as bifidobacteria and lactobacilli. These bacteria produce acetic and lactic acids, which inhibit the growth of pathogenic bacteria, decrease the risk of intestinal infections, and stimulate intestinal peristalsis. The latter provides a mild laxative effect that helps relieve constipation.

What other health benefits result from having these friendly microflora in the colon? They facilitate the absorption of calcium and suppress the activity of cancer-causing enzymes in the large bowel. In addition, they may lower the risk of cardiovascular disease. They have a significant effect on lowering blood cholesterol and triglyceride levels in certain individuals, and modulate blood sugar levels.

Preliminary studies suggest that prebiotics like FOS have a favorable effect on the immune system, and provide improved resistance against infection for the host. More research is required to verify this and the other health benefits claimed for FOS.

Today, consumers are interested in food products that support health beyond that of basic nutrition. Prebiotics

can be incorporated into functional foods giving them special health-promoting properties. FOS has properties similar to dietary fiber but provide additional health advantages beyond fiber. FOS are water soluble, and are mildly sweet. Their lack of texture and viscosity facilitates their easy incorporation into processed foods and beverages.

A common commercial source of FOS is chicory, the roots of which contains up to 20 percent inulin, a carbohydrate belonging to the FOS family. Ground and roasted chicory roots are also commonly used as a coffee substitute. Yacon, a Peruvian vegetable similar to sweet potato, is also a rich source of FOS. Its sweet, juicy flavor and low calorie content, makes yacon popular for low-sugar beverages and bakery products, and is a favorite of those with diabetes. Another dietary source of FOS is jicama, or Mexican potato, which is commonly used in soups, salads and stir-fries in Central America and Vietnam.

One should exercise care in not immediately adding substantial quantities of prebiotics such as FOS to the diet. A temporary increase in intestinal gas, bloating or bowel discomfort may result.

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