

Why are farmers who grow cacao trees scared of the witch's broom?

Answer: Witch's broom is a fungus that just might sweep away the farmers' livelihood. Most of the world's chocolate is made from the fermented and roasted seeds of cacao trees grown on small farms in Africa, but sadly, diseases currently destroy about a third of the crop every year. This could get far worse if witch's broom, or frosty pod, another fungus, invade the plantations. In the 1980s witch's broom devastated Brazil's cacao trees and agronomists believe it is only a matter of time until such nasty fungi find their way into plantations in Ghana and the Ivory Coast. That's why plant scientists are studying varieties of wild cacao trees hoping to find species that are high yielding, drought tolerant and resistant to diseases. The idea is to examine the DNA of trees that have such properties and identify the genes responsible for these traits. Then new varieties of cacao trees can be bred, and those that have the desired genes can be immediately cultivated instead of having to wait years until a tree is fully grown to evaluate its properties. Huge corporations such as Mars are at the forefront of such research because their profits depend on the availability of cacao beans. You can't make chocolate if you don't have the raw material. And these days chocolate is hot. "A chocolate bar a day will keep the doctor away" is beginning to replace the more common "apple a day" slogan.

Marketers are capitalizing on the high antioxidant content of cacao powder and have begun to promote chocolate as a quasi drug. They are stumbling over each other in their haste to become the greenest and healthiest purveyors of chocolate. Instead of taste, they talk of oxygen radical absorption capacities, organic raw ingredients and handcrafting. Some like Xocai, a multilevel marketed product, will toss in omega-3 fats, lactobacillus and bifidobacteria or powdered acai berries and blueberries. The company touts the high antioxidant potential of its product and suggests eating three squares a day for optimal effect. This also optimizes profits. Consumers will have to shell out about a hundred dollars a month. Put that money towards fruits and vegetables and you'll get a lot more antioxidants. True Chocolate goes even further. Everything but the kitchen sink is thrown in. You'll find various extracts of green tea, black pepper, kidney beans, oranges, lemons and noni fruit. Whether the small amounts of these ingredients do anything is high debatable. Then there is Gnosis chocolate, created by a "certified holistic health counselor." Gee, could we possibly ask for more expertise? You'll be comforted to know that she has worked hard to select the most potent combinations of superfoods such as agave nectar and crystal manna, a type of algae, to add to her hand-made chocolates. There is another ingredient that is listed on every variety, love. I wonder where that grows. But I'm happy to hear that Gnosis is made with "green integrity" and "Gaia consciousness." I think I can do without the Gaia consciousness and all the other overhyped additives as well. Any dark chocolate bar that has about 70% cocoa powder is good enough for me, although I do admit to favouring a Dove bar. In fact there is even clinical evidence that eaten every day, the flavonoids it contains, particularly epicatechin, improve the way that blood vessels dilate and relax. The vessels lose stiffness, which is a marker for heart disease. At least so far nobody has tried to tout the benefits of chocolate covered doughnuts. It will come though. Probably fortified with blue-green algae, wheat grass juice or red wine extract.