CTFO XANTHOMYST<sup>™</sup> CONSULTANT AND MEDICAL ADVISOR



#### 1- Where does the Mangosteen come from?

Garcinia mangostana, or purple mangosteen, is native to Southeast Asia, specifically countries like Thailand, Malaysia, Indonesia and the Philippines. Its cultivation has spread to other countries in South America (Brazil, Columbia), Africa (Madagascar), and even to obscure destinations such as Martinique in the Caribbean. It is commercially cultivated in 11 different countries.

#### 2. Why is it so popular?

The mangosteen fruit is the most expensive fruit in the markets of the countries where it is grown. Its white segmented internal fruit has a sweet and tangy flavor along with a creamy, juicy texture. Its taste has been described as similar to a combination of peach, grape, and strawberry. In Thailand it has been named the 'queen of fruits.' Its outer rind, or 'pericarp,' is extremely rich in phytonutrients and has been used for centuries in traditional medical disciplines.

#### 3. What is the source of the mangosteen's value for humans?

Plants are prey to the same dangerous environmental threats which cause disease in humans, for example, viruses, bacteria, fungi, parasites and radiation from the sun. They elaborate complex antivirals, antibacterials, antifungals and they also produce substances to control parasites. These, when taken into our own bodies, may provide similar benefits for humans.

Additionally, mangosteens contain many nutritional elements which our body uses to grow and thrive. These nutrients are found primarily in the pigments of the pericarp.

#### 4. What nutrient families are found in the mangosteen?

The mangosteen contains a variety of polyphenols, including xanthones, flavonoids, and tannins. Xanthones, which are unique to the mangosteen, are the most studied polyphenols in the fruit and have been found to be promising candidates for improved health benefits. Mangosteen also contains catechins anthocyanins, quercetin, and resveratrol, which are all types of flavonoids with various health benefits. Tannins are another group of polyphenols found in the Mangosteen that have been shown to have their own list of studied effects.

### 5. If the mangosteen has been extensively studied by scientists for its health benefits, why can we not broadcast this information to the world?

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Although scientists since the 1850's have studied the mangosteen fruit and, as of today, over 26,000 citations are listed in the scientific database Google Scholar about the fruit, the studies do not measure up to the criteria set by the US government in order to qualify as a "drug." Only **drugs** can be linked to medical claims for diagnosis or treatment of a disease.

Companies selling supplements are only permitted to use "*structure and* function" claims based on the relevant scientific research. For example, "it helps to support a healthy immune system, respiratory system etc."

Individuals who may have experienced beneficial effects from using a supplement are permitted, protected by the first amendment guaranteeing free speech, to talk about their own experience, but it is not appropriate to use the experience of others (third party) to bolster belief in a supplement's effects.

# 6. If the mangosteen is so remarkable, why have supplement companies not done the research which would allow them to talk about its benefits for health more explicitly?

Randomized, controlled, double-blind clinical trials are the type of medical evidence required by law to justify any public specific health or disease claims. This process is very expensive. Tufts University Center for the Study of Drug Development recently stated that drug research and development costs are now \$2.9 billion per new drug! Add to this fact that natural products or botanicals cannot, by law, be patented as drugs are, and it is obvious that supplements cannot satisfy the legal requirements which would permit our industry to make medical claims.

Nonetheless, numerous "in vitro" (in test tubes and Petrie dishes) and "in vivo" (using animal models) experimentation has been done. Even human, or "clinical" trials, exist. For example, several studies have investigated the potential therapeutic effects of mangosteen on various health conditions.

Among supplements, the mangosteen has been well studied with more than 26,000 citations available in the database "Google Scholar."

#### 7. Can the mangosteen, in any form, be used with drugs?

Pharmaceutical drugs are processed by the liver in the same enzyme systems which process food, and the mangosteen is a food. Pharmaceutical drugs alter the rate at which the liver can process some foods and vice versa. Therefore, the amount of drug

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that can be processed may possibly be changed. However, let's be clear, the drug is what changes the processing rate, not the food!

As a result, some alteration of drug delivery may be possible with the use of foods, including the Mangosteen fruit in this regard. However, in the practical world, over more than 10 years, I was responsible for reporting any serious food/drug reactions caused by the Mangosteen sold by a very large company which had millions of customers. *Not once* in that time did I deal with a serious adverse medical reaction which could be attributed to the use of the Mangosteen.

Therefore, if you are concerned about taking drugs with your mangosteen supplement, you should consult your doctor.

### 8. Does a mangosteen supplement need to be discontinued prior to undergoing surgery?

It is advisable for two reasons to discontinue the use of Mangosteen when surgery is scheduled. First, the mangosteen metabolism by the body uses the same cytochrome P-450 enzymes which also participate in the metabolism of drugs used for anticoagulation.

Second, and more important in my opinion, is the fact that problems with blood clotting or hemorrhaging are extremely common following surgery and, if damage occurs, you can be certain that the surgeon involved will be quick to blame anything except the surgery for the problem. Removing Mangosteen 3 to 5 days before surgery will remove the surgeon's potential excuse for a surgical complication.

### 9. How should I begin to use XanthoMyst™ to improve my health?

I recommend that you make a list of the health symptoms or problems that you have, and then monitor those problems using a simple one-to-five analog scale of severity, with five being the worst. Preferably, do this when you order XanthoMyst™ so you have several days before your product arrives to establish a baseline severity for your problems.

After beginning XanthoMyst<sup>™</sup>, at the recommended serving, you should return to your baseline record and make an evaluation of any possible changes. This should be done ideally at one-week intervals for at least two months.

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Proceeding in this manner allows you to be very specific about what you are noting as changes rather than simply depending upon a general feeling of increased well-being, or the lack of it. It will also help you to understand which specific problems XanthoMyst™ is helping you with at the serving you are using.

### 10. If I am not noticing benefits from the use of XanthoMyst™ after two weeks, what should I do?

Everyone's body works differently from everyone else's. What is a sufficient serving for one person may not be enough for another or, vice versa, one individual may require much less than someone else, and even less than the recommended basic serving. Experimenting with servings by partially increasing or decreasing amounts is to be encouraged so that you understand exactly how much your body requires to have an effect.

### 11. If my symptoms or problems appear to be getting worse after I start the use of XanthoMyst™, what should I do?

Occasionally when we begin to take a supplement to help with a health complaint, there may be a temporary increase in symptoms as soon as we start. Reducing the serving size may decrease the severity of what is called a "detoxification reaction." Detoxification reactions normally do not last longer than two weeks and tend to diminish in severity over that time.

If the increase in symptoms continues beyond two weeks, please contact the company and request a discussion with their medical consultant.

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