



Texas Agricultural Extension Service  
THE TEXAS A&M UNIVERSITY SYSTEM

## Nutri-Facts

Issue #12, July, 2001

### In this issue: **St. John's Wort: Help or Hype?**

**Contents:** Overview of St. John's Wort (function, claims, interactions with medications, latest research results on effectiveness and more!)  
St. John's Wort (consumer fact sheet)  
News release: St. John's Wort: Help or Hype

Greetings all!

The herb St. John's wort has been used for more than 2000 years to help treat a variety of conditions, including anxiety and depression. In the U.S., increasing sales of the herb reflect its growing popularity; in 1995, Americans spent about **20** million dollars on St. John's wort supplements. By 1998, that amount had risen to nearly **200** million! <sup>1</sup>

Despite its growing popularity, results of a recent study published in the *Journal of the American Medical Association* found that St. John's wort was not an effective treatment for major depression. In addition, a number of interactions between the herb and selected medications have been reported. Still, the sales of St. John's wort continue.

This issue of Nutri-Facts focuses on St. John's wort, specifically its proposed benefits, potential side effects, and what consumers need to know if/before they use it. For agents, there is an information sheet which includes the latest research findings along with other pertinent information. A consumer fact sheet and news release are also included.

Since Nutri-Facts is designed for agent use, I appreciate and welcome any comments/suggestions that you have about Nutri-Facts. Also, I am always looking for topics that will be of use to you and the people you work with. If you have any ideas/suggestions for future topics of Nutri-Facts, just let me know.

**Eat Well!**

Jenna

### What is St. John's wort?

St. John's wort is an aromatic perennial herb that produces golden yellow flowers. The plant is named St. John's wort because the flowers are often abundant around June 24<sup>th</sup>, which is the day that is traditionally celebrated as the birthday of John the Baptist.<sup>2</sup> The term wort is an English term for plant. Although the herb is native to Europe, it is found throughout the United States. The scientific name for St. John's wort is *Hypericum perforatum*.<sup>2</sup>



St. John's wort

### Proposed uses of St. John's wort

St. John's wort is most popular for its **proposed** effects on depression and the secondary symptoms associated with the disease (fatigue, loss of appetite, anxiety, and insomnia). However, some individuals may use the herb for other reasons including mood disturbances associated with menopause, headaches, nerve pain, muscle pain, exhaustion, burns, snakebite, ulcers, bruises, sprains, and diarrhea.<sup>3,4</sup> The oils collected from the flowers have been used to treat hemorrhoids,<sup>2</sup> and a tea made from the plant is used by some as a diuretic and/or to treat gastritis.<sup>2</sup>

### How does St. John's wort work?

It is believed that the active ingredients lie in the above-ground parts of the plant. The exact compound believed to relieve depression has not been identified. In fact, it is believed to be a combination of compounds that causes the desired effect. Presently, the herb is thought to prevent the uptake of a compound called serotonin. In simple terms, serotonin is a compound that makes us feel good. So, if more of the compound were floating around in our bodies instead of being taken up by cells, we would feel good longer.

**Note:** If you look at a bottle of St. John's wort, you may notice that the ingredient listed is hypericin. Hypericin is thought to be just one of the active ingredients.

### The growing popularity of St. John's wort

In 2000, according to *The Nutrition Business Journal*, Americans spent an estimated \$195 million on St. John's wort. The herb is used regularly by approximately 1.5 million people and at least 5 million others have tried it within the last five years.<sup>5</sup> The herb is most often marketed as a natural remedy to help support the feelings of well-being (translation: depression). By law, if an herb claims to help treat a disease, then the herb is considered a drug and must be tested and approved by the FDA. If a label uses a structure/function claim such as supporting the feelings of well-being, then the manufacturer doesn't have to prove it is effective, only safe.

Depression is common in the U.S.; an estimated 5.1 million office visits to primary care doctors occurred in 1995 alone. Treating depression is not always easy and faces many barriers including the high cost of prescription medications as well as the unwanted and adverse side effects that some of these medications cause. In addition, the symptoms of depression may not be recognized by the patient or the health care provider. Because of the stigma attached to

depression <sup>6</sup>, patients often perceive their symptoms as part of a physical illness or fail to report them to a health care provider at all. As a result, individuals may choose to self-treat their illness.

**The effectiveness of St. John's wort: what does the research say?**

Most of the research conducted on the effectiveness of St. John's wort has taken place in Germany. A few studies have been done in the U.S. When viewed collectively, most research has suggested that the herb is either better than a placebo (a fake pill) or as good as some prescription medications currently on the market.<sup>4,7-10</sup> However, that does not mean that the herb is definitely effective in treating depression. This is because much of the research published is thought to have flaws in the way the studies were designed, making a meaningful interpretation of the results difficult. This April, a study published in the *Journal of the American Medical Association*<sup>11</sup> found that St. John's wort was not effective for the treatment of major depression. The study, a randomized, double-blind, placebo-controlled clinical trial, involved 200 adults who were being treated for depression on an outpatient basis. Participants were given a placebo for one week, then were assigned to receive either St. John's wort or a placebo for the next 8 weeks. Although the participants tolerated the herb better than the placebo, St. John's wort was no more effective in treating the depression when compared to the placebo. The authors concluded that more controlled clinical trial studies needed to be conducted and that there may be instances where the herb has merit. In this study, however, severe depression was not one of them. The study, which has gained national attention, has been criticized by supporters of St. John's wort. They argue that St. John's wort is only effective for mild or moderate depression, not major depression. Stay tuned for more research!

**Safety of St. John's wort**

Herbs can have drug-like properties. Therefore, people should not self-medicate with herbs. St. John's wort may interact with certain prescription medications, so individuals who use the herb should tell their doctor and pharmacist. The following table illustrates a sample of the interactions<sup>3</sup> and the consequences that can result:

If St. John's wort is taken with:	A person may experience:
Antidepressants	serotonin syndrome (characterized by symptoms such as confusion, anxiety, coma, rapid heart beat, hypertension, nausea, ataxia, and excessive sweating <sup>12</sup> )
Cyclosporine (this is a medication given to organ transplant patients to prevent their body from rejecting the new organ)	organ rejection
Oral contraceptive agents (birth control pills)	a reduced effectiveness of the birth control pill
Protease (pro-tea-ace) inhibitors (these are medications used to treat HIV/AIDS)	a reduction in the levels of the medication circulating in the blood
Coumadin or warfarin (this is a blood thinning medication)	a decrease in the effectiveness of the medication

When taken orally (by mouth), the herb can cause side effects such as insomnia, restlessness, anxiety, fatigue, dry mouth, and headache. St. John's wort may also cause an increased sensitivity to sunlight, so fair-skinned people should take extra precautions against direct sunlight.<sup>3</sup> Aside from the reported interactions with prescription medications, however, many people who take St. John's wort tolerate the herb well.

Remember, dietary supplements, including herbal supplements, are not regulated by the Food and Drug Administration. The FDA does not test the supplements for purity and the supplements do not have to be proven to be effective before they go on the market.

**Another interesting note:** Research with animals suggests that St. John's wort might prevent the fertilization of an egg and may alter the DNA of sperm. Although this has not been shown in humans, couples trying to conceive would be wise to avoid the herb.<sup>3,13</sup>

### **What does a consumer need to know before using St. John's wort?**

**The Texas Agricultural Extension Service does not endorse the use of herbal medicine.**

However, we recognize that there may be consumers who elect to use supplements regardless of their effectiveness or safety. With this in mind, we can offer consumers some tips<sup>14</sup> to remember when using St. John's wort or any other herbal supplement:

(1) Discuss all medications a person uses, including prescription drugs, herbal supplements, vitamin and mineral supplements and over-the-counter medications with his/her physician or health care provider.

(2) Make sure a person gets an accurate diagnosis before using the herb.

(3) Make sure a person is aware of any possible side effects the herb may have BEFORE it is taken. If a person experiences any of the side effects, they should stop taking the herb immediately and contact a doctor or pharmacist.

(4) Make sure that a person gets unbiased and scientifically-based information about herbs.

(5) Avoid using supplements that contain more than one herb. Most research is conducted on a single herb - not a combination of herbs.

(6) Buy your herbal supplements from reliable sources. Remember, price is not always the best indicator of quality.

The National Institutes of Health has also produced a fact sheet on St. John's wort. This fact sheet can be obtained via the following web site:

<http://nccam.nih.gov/nccam/fcp/factsheets/stjohnswort/stjohnswort.htm>

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**Note to agents:** An educational program called *Weeding Through the Facts and Fiction About Herbal Medicine* is available for use from the Educational Resource Library in College Station. The program contains color overheads, a script, two fact sheets which can be reproduced for distribution to clients, and an evaluation tool.

# Frequently Asked Questions About St. John's Wort

## What is St. John's wort?

St. John's wort is a type of herb. The plant is named St. John's wort because its flowers tend to be abundant around June 24<sup>th</sup>, which is the day celebrated by many as the birthday of John the Baptist. The term wort is an old English term for plant. The herb is native to Europe, but is found throughout the United States.



good as some prescription medications.

However, this does not mean that the herb is definitely effective in treating depression. One recent study, published in the Journal of the American Medical Association, found that the herb was not effective in treating major depression.

## Why do people use St. John's wort?

St. John's wort is often advertised as a natural remedy for depression. The herb is also thought to be useful in treating burns, ulcers, headaches, muscle pain, exhaustion, bruises, sprains, and diarrhea.

## Does St. John's wort really help treat depression?

Some studies suggest that the herb might be better than a placebo (a fake pill) or just as

## Is St. John's wort safe?

Mixing herbs with medications can be dangerous, so people who use St. John's wort should tell their doctor **and** pharmacist. The herb can cause side effects such as insomnia, anxiety, dry mouth, fatigue, and headache. St. John's wort may also cause an increased sensitivity to sunlight, so fair-skinned people should take extra precautions against direct sunlight. Also, keep in mind that herbs are not tightly regulated in this country. They do not have to be proven effective before being sold to consumers.

## What do I need to know if I am going to use St. John's wort?

The Texas Agricultural Extension Service does not endorse the use of herbal supplements.

However, if a person chooses to use an herbal supplement, the tips below will help make a person become a more educated consumer.

- (1) Get an accurate diagnosis BEFORE using the herb.
- (2) Make sure your health care provider knows ALL the medications you use, including over-the-counter and prescription drugs, herbal supplements, and vitamin and mineral supplements.
- (3) Learn about the herb's possible side effects BEFORE it is taken. If you experience any of the side effects, stop taking the herb immediately and contact your health care provider.
- (4) Get unbiased and scientifically-based information about herbs.
- (5) Avoid using supplements that contain more than one herb. Most research is conducted on a single herb - not a combination of herbs.
- (6) Buy your herbal supplements from reliable sources. Remember, price is not always the best indicator of quality.

**News release, July 2001**

These days, it seems that when some people are feeling blue, they are reaching for the bottle - the bottle of St. John's wort, that is. With sales reaching almost \$200 million in the year 2000, and with an estimated 1.5 million people using the herb each year, one might get the idea that St. John's wort is a natural solution to an illness that affects nearly 19 million Americans in a year. Is this too good to be true? Possibly, says Jenna Anding, Ph.D., R.D., a registered dietitian and nutrition specialist with the Texas Agricultural Extension Service.

Treating depression is not always easy. The medications can be expensive and some of the side effects they cause can be bothersome. In addition, the symptoms of depression may not be recognized by the patient or the health care provider. Because of the stigma attached to depression, people may perceive their symptoms as part of a physical illness or fail to report them to a health care provider altogether. Consequently, it is not unusual for some individuals to try to treat their illness by themselves.

While studies have suggested that the herb might be of value in treating some forms of depression, a recent U.S. study published in the *Journal of the American Medical Association* found that the herb was no better than a placebo in treating major forms of the illness. The study, which has gained national media attention, is just one of several studies that are being conducted in the United States. St. John's wort has been used for thousands of years, but we just don't have enough information to definitely say that it is effective in treating depression. Although many people tolerate the herb without serious problems, it is not recommended that one take St. John's wort without discussing it first with their physician. People who mix St. John's wort with other medications should be extra careful cautions Anding. That is because the herb may interact with several types of medications, including those used to treat HIV/AIDS, oral contraceptives, as well as those that thin the blood. Since no government agency tests the contents of herbal supplements, there is always the possibility that some bottles of St. John's wort may not have what is stated on the label.

For more information about St. John's wort, contact \_\_\_\_\_ county Extension agent at \_\_\_\_\_.