

## Did You Know?



Many sunscreens provide protection against only one type of ultraviolet radiation, ultraviolet-B (UVB). In fact, current sun-protection-factor (SPF) values listed on sunscreens are actually based just on UVB protection, though that may change in the future.

Most of us use sunscreens to prevent sunburn, which is primarily caused by UVB. But the more health-conscious among us know that the other type of ultraviolet radiation, ultraviolet-A (UVA), is also important to our health and well-being. Consumers should look for sunscreens with ingredients that protect from both UVB and UVA.

In 2000, scientists at the ARS National Center for Agricultural Utilization Research (NCAUR), Peoria, IL, first reported on a natural, soy-based sunscreen that protects from both types of solar radiation. The product, called "SoyScreen" at the time, was made from a technology that combined soybean oil with a natural antioxidant found in rice and oat bran. The soybean oil gave the antioxidant water resistance—an important quality for swimmers and others who exercise or work outdoors and need a product that won't be sweated or washed off easily.

The SoyScreen technology was patented in 2002, and the first SoyScreen-containing commercial product came out in 2007 under the trade name "Feruloyl Soy Glycerides"

(FSG33). Though FSG33 is not currently in SPF-rated products, it is and has been used in a number of high-end skin- and hair-care products over the years.

Marketed as a broad-spectrum UV absorber, FSG33 faces challenges in the retail industry because it is costly to produce, limiting its current use to high-end, salon-type formulas. Consumers willing to pay extra can take comfort that the all-natural, soy-based sunscreen scored high on UVA protection at wavelengths that cause long-term exposure problems such as wrinkling and skin cancer, compared with several ingredients in commercial products.

### *Did you know that...*

- The FDA established regulations, effective June 18, 2012, for a standard test for over-the-counter sunscreen products to determine which can be labeled as providing broad-spectrum UV protection?
- Sunscreens should be applied every 2 hours even if you are not swimming or perspiring?
- Swimmers and exercisers should apply sunscreens even more frequently?
- Sunscreens lose their potency over time? Last year's bottle is not as effective as this year's.

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