



ARBOR FARMS MARKET

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Our April 2019 Newsletter for Healthy Living

Be Wise About Your Sunscreen

In February the U.S. Food and Drug Administration (FDA) proposed new regulations to “make sure sunscreens are safe and effective” which, if enacted, could have a transformative effect on the sunscreen industry as a whole. In its proposal, the FDA admits it does not have enough scientific data to draw any conclusions about the safety of 12 of the 16 active sunscreen ingredients on its list, and asks industry to help in providing more data to perform a “rigorous assessment” of all active ingredients on the market. Of all the active sunscreen ingredients used in products on the U.S. market, only two — non-nano-sized zinc oxide and titanium dioxide — have been deemed safe for human use by the FDA. Importantly, two of the 16 ingredients, PABA and trolamine salicylate, have been deemed unsafe, or not generally recognized as safe (GRAS), and are not currently in use according to the FDA.



The proposal also includes broad updates to labeling requirements, as well as SPF-related changes. For the latter, FDA wants sunscreens with an SPF of 15 or higher to provide broad spectrum protection against both UVA and UVB rays, not just UVB as is currently the case. One of the 12 active sunscreen ingredients the FDA claims to be unsure about is oxybenzone, found in an estimated 70 percent of sunscreens. This, despite studies showing this chemical acts as an endocrine disruptor and has been linked to reduced sperm

count in men and endometriosis in women. Research by the Centers for Disease Control and Prevention shows 96 percent of the U.S. population has oxybenzone in their bodies, which is a testament to just how much sunscreen people are using. Indeed, daily use of sunscreen is one of the reasons cited by the FDA for the need to update safety

one-like effect. Of those 13 chemicals, eight are approved for use in the U.S. These include: avobenzene; meradimate; homosalate; octisalate (also known as octyl salicylate); octinoxate (octyl methoxycinnamate); octocrylene; oxybenzone (also called benzophenone-3), and padimate O. These chemicals can also be found in makeup, moisturizers and lip

“...only two sunscreen ingredients have been deemed safe for human use by the FDA.”

regulations. People are using far more sunscreen these days, so exposure to potentially hazardous ingredients is of far greater concern than in decades past.

Oxybenzone is also lethal to certain sea creatures, including horseshoe crab eggs, and researchers warn the widespread use of oxybenzone-containing sunscreens pose a serious threat to coral reefs and sea life. This effect is what prompted Hawaiian lawmakers to ban the sale of sunscreens containing oxybenzone and octinoxate, both of which have been linked to severe coral damage. Oxybenzone isn't the only endocrine disruptor, though.

At least eight other active sunscreen ingredients are suspected of having endocrine disrupting effects. According to a recent Danish study, 13 of 29 sunscreen chemicals (45 percent) allowed in the U.S. and/or European Union have the ability to reduce male fertility by affecting calcium signaling in sperm, in part by exerting a progester-

balms with sunscreen protection. "These results are of concern and might explain in part why unexplained infertility is so prevalent," senior investigator, Niels Skakkebaek, professor at the University of Copenhagen in Denmark and a researcher at the Copenhagen University Hospital, said. Many sunscreens also contain vitamin A and/or its derivatives, retinol and retinyl palmitate, which have been linked to an increased risk of skin cancer by increasing the speed at which malignant cells develop and spread.

Researchers have also warned that some sunscreen ingredients are neurotoxic, posing a hazard to brain health. The authors of this study noted that since sunscreens need to be applied in significant amounts all over the body, calculations suggest the total amount of a given compound being absorbed from a single application could be as high as 200 milligrams. According to the above-referenced study, other studies also show these chemicals are found in blood,

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2019 Organic Produce CSA

Homer Organic Family Farms



Our Farming Practices

Our farming practices will take you back to the 1930's. Our fields are plowed and worked with horses. Our large families provide many hands to do the hoeing and many other tasks that can only be done by hand. Food that was raised in the 1930's had much better flavor and many more nutrients because farmers were not dependent on the chemicals, pesticides and GMO seeds that most farms use today. Food that has been organically grown doesn't just taste better, but it's also better for you!

We want you to enjoy better health. It is important to know where our food is coming from. Everyone needs a farmer. Who or where is your farmer?

About Us

We farmers (there are now seven participating farmers in our Homer Community) have been raising produce for several years, providing fresh vegetables for Farmers Markets and several of the Ann Arbor food stores. In 2008, we decided to begin a farm share program (CSA). Being a farm share member connects you directly to the farm your food is coming from. We usually offer a couple farm visits during the summer months. A farm visit will not only acquaint you with our farming community, but also offers a glimpse of the efforts made to provide you with good, clean, wholesome food.

We, being of the Amish faith, do not have phones, computers or email, so our communication needs to be by mail, at the farmers markets or through our friends at Arbor Farms. Of course, you are always welcome to come out to our farms.

We welcome you for a farm visit!

What is a CSA Program?

By subscribing to a CSA you are investing in a share of the farmer's harvest. The CSA farm share program then provides you with fresh vegetables every week. The early harvest begins May 29th, continues throughout the summer, and ends October 10th (for a total of 20 weeks).

Not only are subscribers getting the freshest food, but they are also showing their support for the small farmer. The program works well for the farmers and members both. The farmer can plan how much to grow. The member knows they have a box of vegetables coming every week. It makes shopping quite simple. It broadens your eating habits, as you will try new things you've never had before. It can challenge the cook. A seed catalog to us is like a cookbook to you. Sometimes we like to try new items. So be our guest and enjoy the food.

What might I see in my weekly box?

Early Season: May/June

Asparagus
Leaf Lettuce
Swiss Chard
Kale varieties
Collards
Zucchini and Summer Squash
Peas: Snap and Shell
Salad Greens
Rhubarb

Summer Season: June/July/August

Lettuce, Broccoli, Cabbage
Radishes, Beans, Peppers
Zucchini, Cucumbers, Hot Peppers
Carrots, Peas, Tomatoes
Sweet Potatoes, Basil
Potatoes, Cantaloupe
Green Onions, Sweet Corn
Onions, Eggplant
Beets, Garlic, Watermelon

Late Season: September/October

Remaining summer crops,
Red Peppers
Hard Squash
Spinach
Late Greens
Turnips
Parsnips
And wrapping up the garden.

Community Supported Agriculture (CSA)

Subscribe now-May 15th.

Sunscreen, *continued from page one*

urine and breast milk following application, in some cases within as little as two hours. According to the authors: “[W]hile sunscreens have been effective in protecting against a variety of UV-related pathologies ... growing popular-

areas of your respiratory tract and, since your lungs have difficulty clearing small particles, they may be allowed to pass into your bloodstream. Other studies have proven some nanoparticles are even able to cross your blood-brain barrier. If

Remember, there really are only two known safe sunscreen ingredients — zinc oxide and titanium dioxide — and they must not be nano-sized. Your safest choice is a lotion or cream with zinc oxide, as it is stable in sunlight and provides the best protection from UVA rays. Your next best option is titanium dioxide. Be certain the product does not contain nano sized particles and protects

“Since many of UV filters were shown to cross the blood-brain barrier, the risk for neurotoxicity also occurs.”

ity and thus, possibility for exposure questions their safety in environment and human health ... The endocrine disruptive and developmental toxicity of many organic UV filters in experimental models is well established; these filters seem to be associated with altered estrogen, androgen and progesterone activity, reproductive and developmental toxicity and impaired functioning of the thyroid, liver or kidneys ... Since many of UV filters were shown to cross the blood-brain barrier, the risk for neurotoxicity also occurs ... [S]ince it is known that other chemicals classified as endocrine disruptors can impair neuronal transmission, synaptic plasticity and produce neurotoxic effects, chemical filters might potentially produce similar effect.”

Sunscreen ingredients found to have neurotoxic effects in this study included: **Octyl methoxycinnamate** — Found to decrease motor activity in female rats and alter the release of a number of different neurotransmitters; **Benzophenone-3 (oxybenzone)** — Decreases cell viability of neurons, and upregulates estrogenic-related genes in male animals; **Benzophenone-44-methylbenzylidene camphor** — Decreased cell viability and impaired neuronal development in lab animals; **3-benzylidene camphor Octocrylene** — Impaired expression of genes related to brain development and brain metabolism. The authors also stress that simultaneous application of insect repellants such as DEET enhances the penetration of the compounds, thereby multiplying their potential toxicity.

Most nanoscale particles (microscopic particles measuring less than 100 nanometers) found in American sunscreens are either titanium dioxide or zinc oxide. While these two are the only ingredients known to be safe, this safety does not extend to nano-sized versions. Animal research has shown that inhaled nanoparticles can reach all

allowed to enter your lungs or penetrate your skin, nanoparticles therefore have the potential to cause widespread damage to your cells and organs, immune system, nervous system, heart and brain. FDA has previously expressed concern that inhaling these products may be risky, especially to children, and in 2014, Consumer Reports advised parents to avoid spray-on sunscreens until the FDA had finished reviewing the sunscreens. Your safest bet is to use topical zinc oxide or titanium dioxide that does not contain nanosized particles.

Aside from covering up before you get burned, you can reduce your risk of sunburn by eating plenty of antioxidant-rich fruits and vegetables, and/or taking an astaxanthin supplement. The latter has been shown to work as an effective internal sunscreen, protecting your skin from UV radiation damage. In addition to copious testimonials and anecdotal evidence, scientific studies have substantiated these skin protective effects. In one study, subjects who took 4 milligrams of astaxanthin per day for two weeks showed a significant increase in the amount of time necessary for UV radiation to redden their skin.

Animal studies lend further evidence to astaxanthin’s effects as an internal sunscreen: In one study, mice were fed various combinations of astaxanthin, beta-carotene and retinol for four months. Astaxanthin was substantially effective in preventing photoaging of the skin after UV radiation, as measured by markers for skin damage. A rat study found astaxanthin was found to be 100 times stronger than beta-carotene and 1,000 times stronger than lutein in preventing UVA light-induced oxidative stress. The Journal of Dermatological Science published a study in 2002 finding astaxanthin is able to protect against alterations in human DNA induced by UVA light exposure.

With all the sunscreens on the market, how do you identify a safe one?

Join us Sat./Sun., April 13-14
for our

April Super Sale



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special coupon offer!

against both UVA and UVB rays. Keep in mind that SPF protects only from UVB rays (although if the FDA’s proposed rules are implemented, any SPF at or above 15 must protect against both UVA and UVB), which are the rays within the ultraviolet spectrum that allow your skin to produce vitamin D. The most dangerous rays, in terms of causing skin damage and cancer, are the UVA.

Sunshine offers substantial health benefits, provided you take a few simple precautions to protect yourself from overexposure. Consuming a healthy diet full of natural antioxidants is another highly useful strategy to help avoid sun damage. Fresh, raw, unprocessed foods deliver the nutrients that your body needs to maintain a healthy balance of omega-6 and animal-based DHA omega-3 oils in your skin, which are your first lines of defense against sunburn. Vegetables also provide your body with an abundance of powerful antioxidants that will help you fight the free radicals caused by sun damage that can lead to burns and cancer.

Reference: FDA.gov February 21, 2019. Endocrine Society April 1, 2016. Sunscreensbiohazard.com. Hawaii News Now May 1, 2018. EWG.org *The Trouble With Ingredients In Sunscreens*. *Endocrine Connections* January 2018; 7(1):16-25. *Science Daily* April 1, 2016. *Toxicology Reports* 2016. *Consumer Reports* July 2, 2014. Cyanotech.com *Sunscreen In A Pill?*. *International Journal for Vitamin And Nutrition Research* 1995; 65(2):79-86. *Journal of Dermatological Science* March 1998; 16(3):226-30. *Journal of Dermatological Science* March 2002; 30(1):73-84. EWG.org *Sunscreen Guide*. *Consumer Reports*, *Sunscreen Buying Guide*.



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**Duration: 20 weeks/
May 29 - October 10**

Cost: \$400

Share Size: 1/2 Bushel box
(2-person size, about 9-10 lbs
will vary w/ seasonal contents)

Subscriber Information

Name(s) _____ Phone # _____

Address _____ Phone # _____

City/Zip _____ E-mail _____

Choose your Pickup Time: (circle one)

Wednesdays @ 7:30AM or **Thursdays @ 2:30PM**

Picking up your box within one hour of designated time will yield the freshest produce. All pickups will take place in a designated area in front of Arbor Farms , outside the store and under our canopy to protect from the elements as much as possible. **You will be able to park, pick up your box, and be on your way in as little as 60 seconds!** Please note that boxes not picked up within 36 hours will be donated to Food Gatherers.

Choose your Payment Schedule:

\$400 paid in full

\$200 now, remaining \$200 by May 27th