List of known cancer causing ingredients everyone should avoid

Published on March 31, 2011

Cancer Group and Ralph Nader Release “Dirty Dozen” Consumer Product List

Published by the Cancer Prevention Coalition

“Dirty Dozen” list released by Dr. Epstein and Cancer Prevention Coalition

On Sept. 21, 1995, the Cancer Prevention Coalition (CPC) and Ralph Nader released a “Dirty Dozen” list of consumer products used in most American homes which is still useful today. Brand named “Dirty Dozen” products include: Ajax Cleanser®, Clairol® Nice n’ Easy Haircolor and Lysol® Disinfectant.

The “Dirty Dozen” products contain a wide-range of carcinogenic and other toxic ingredients and contaminants to which most of us are exposed daily.

CPC Chairperson Samuel Epstein, M.D., and investigative journalist, David Steinman, compiled the “Dirty Dozen” from data on over 3,500 consumer products analyzed and ranked in their recently published The Safe Shopper’s Bible. The good news is that safer alternatives are available for all the “Dirty Dozen”.

The Dirty Dozen List

Click here to view the ‘Dirty Dozen’ list on the Cancer Prevention Coalition Site

Following is a list of consumer products used in most American homes and manufactured by giant U.S. corporations, according to a report by the Cancer Prevention Coalition (CPC) and Ralph Nader — released back in 1995 but still just as timely today. The first “Dirty Dozen” list products included: Ajax Cleanse®, Clairol® Nice n’ Easy Haircolor and Lysol® Disinfectant.

According to the report, these “Dirty Dozen” products contain a wide-range of carcinogenic and other toxic ingredients and contaminants to which most of us are exposed daily.

FOOD

Beef Frankfurters — (eg. Oscar Mayer Foods Corporation)

Unlabeled Toxic Ingredients:

- BENZENE HEXACHLORIDE, Carcinogenic.
- DACTHAL, Carcinogenic (can be contaminated with dioxin); irritant; strong sensitizer.
- DIELDREN, Carcinogenic; xenoestrogen.
- DDT, Carcinogenic; xenoestrogen.
- HEPTACHLOR, Carcinogenic; neurotoxic; reproductive toxin; xenoestrogen.
- HEXACHLOROBENZENE, Carcinogenic; neurotoxic; teratogenic.
- LINDANE, Carcinogenic; neurotoxic; damage to blood forming cells.
- HORMONES: Carcinogenic and feminizing.
- ANTIBIOTICS: Some are carcinogenic, cause allergies and drug resistance.

Labeled Ingredient:

- NITRITE, Interacts with meat amines to form carcinogenic nitrosamines which are a major risk factor for childhood cancers.
**Safer Alternative:**
- Nitrite-Free Organic hot dogs or tofu franks.

**Whole Milk** — (eg. Borden or Lucerne)

**Unlabeled Toxic Ingredients:**
- DDT, Carcinogenic; xenoestrogen.
- DIELDRIN, Carcinogenic; xenoestrogen.
- HEPTACHLOR, Carcinogenic; neurotoxic; reproductive toxin; xenoestrogen.
- HEXACHLOROBENZENE, Carcinogenic; neurotoxic; reproductive toxin.
- ANTIBIOTICS: Some are carcinogenic, cause allergies and drug resistance.
- RECOMBINANT BOVINE GROWTH HORMONE and IGF-1: Also, risk factor for breast, colon and prostate cancers.

**Safer Alternative:**
- rBGH-free Organic skim milk

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**COSMETICS AND PERSONAL CARE PRODUCTS**

**Talcum Powder** — (Johnson & Johnson, Inc.)

**Labeled Toxic Ingredient:**
- TALC, Carcinogenic and a risk factor for ovarian cancer; lung irritant.

**Safer Alternative:**
- Corn Starch — (Johnson & Johnson, Inc.)

**Cover Girl Replenishing Natural Finish Make Up** (Foundation) (Procter & Gamble, Inc.)

**Labeled Toxic Ingredients:**
- BHA, Carcinogenic.
- TALC, Carcinogenic; Lung Irritant.
- TRIETHANOLAMINE (TEA), Interacts with nitrites to form carcinogenic nitrosamines.
- LANOLIN, Often contaminated with DDT and other carcinogenic pesticides.
- PARABENS, Contact dermatitis.
- FRAGRANCE, Wide range of unlabeled, untested, and toxic ingredients; contact dermatitis.

**Safer Alternative:**
- Max Factor Pan-Silk Ultra Creamy Makeup (Max Factor, Inc.) — Note: Max Factor has stopped selling in the U.S. Max Factor is still offering these items in their store at: http://www.maxfactor.com/index.jsp. Drugstore.com, Amazon, Sears, and a great many stores on the Internet still have some Max Factor products left, as well.

**Crest Tartar Control Toothpaste** — (Procter & Gamble, Inc.)

**Labeled Toxic Ingredients:**
- FD&C BLUE #1, Carcinogenic.
- SACCHARIN, Carcinogenic.
- FLUORIDE, Possibly carcinogenic.

**Safer Alternative:**
- Tom's of Maine Natural Non-Fluoride Toothpaste

**Alberto VO5 Conditioner** (Essence of Neutral Henna) (Alberto-Culver USA, Inc.)

**Labeled Toxic Ingredients:**
Labeled Toxic Ingredients:

- FORMALDEHYDE, Carcinogenic; neurotoxic; contact dermatitis and sensitizer.
- POLYSORBATE 80, Generally contaminated with the carcinogen 1,4-dioxane.
- FD&C RED #4, Carcinogenic.
- FRAGRANCE, Wide range of undisclosed ingredients; contact dermatitis.

Safer Alternative:

- Earth Preserv Hair Vitalizer (all scents, but with fragrances) (Earth Preserv, Inc.)
- Clairol Nice 'n Easy (Permanent Haircolor) (Clairol, Inc.)

Labeled Toxic Ingredients:

- QUATERNIUM-15, Formaldehyde-releaser; carcinogenic; neurotoxic; contact dermatitis and sensitizer.
- DIETHANOLAMINE (DEA), Carcinogenic; also interacts with nitrites to form a carcinogenic nitrosamine.
- PHENYLENE-DIAMINES, Includes carcinogens and other ingredients inadequately tested for carcinogenicity; contact dermatitis.
- PROPYLENE GLYCOL, Contact dermatitis.
- FRAGRANCE, Wide range of undisclosed ingredients; contact dermatitis.
- NOTE: Also evidence of causal relation to non-Hodgkin’s lymphoma, multiple myeloma and other cancers.

Safer Alternatives:

- Igora Botanic — Schwarzkopf, Inc. or Logona Henna Black — Natur Kosmetik

HOUSEHOLD PRODUCTS

Ajax Cleanser (Colgate-Palmolive, Inc.)

Unlabeled Toxic Ingredients:

- CRYSSTALLINE SILICA, Carcinogenic; eye, skin and lung irritant.
- WASHING SODA, Caustic.
- NOTE: Carcinogenicity of silica is admitted in 1994 Material Safety and Data Sheet (MSDS). (Manufacturer claims to have reduced silica levels since 1993.)

Safer Alternative:

- Comet Cleanser (Procter & Gamble, Inc.)

Zud Heavy Duty Cleanser (Reckitt & Colman, Inc.)

Unlabeled Toxic Ingredient:

- CRYSSTALLINE SILICA, Carcinogenic; eye, skin and lung irritant. (Carcinogenicity is denied in Material Safety and Data Sheet.)

Safer Alternative:

- Comet Cleanser (Procter & Gamble, Inc.)

Lysol Disinfectant Spray (Reckitt & Colman, Inc.)

Labeled or Unlabeled Toxic Ingredient:

- ORTHOPHENYLPHENOL (OPP): Carcinogenic; irritant. (Carcinogenicity is denied in Material Safety and Data Sheet.)

Safer Alternative:

- Airwick Stick Up (Reckitt & Colman, Inc.)

Zodiac Cat & Dog Flea Collar (Sandoz Agro, Inc.)

Labeled Toxic Ingredient:
Labeled Toxic Ingredient:

- PROPOXUR, Carcinogenic; neurotoxic.

Safer Alternative:

- Trader Joe's Herbal Flea Collar for cats or dogs

Ortho Weed-B-Gon Lawn Weed Killer (Monsanto Co.)

Labeled Toxic Ingredient:

- SODIUM 2,4-DICHLOROPHENOXYACETATE (2,4-D), Carcinogenic with evidence of casual relation to lymphoma, soft tissue sarcoma and other cancers ; neurotoxic; reproductive toxin.

Safer Alternative:

- Organic pesticides


Carcinogen Information from ‘Every Child Healthy, Building Champions for Life’

We're guessing if we saw Skittles naked, without their coloring, we probably wouldn't want to eat them as much. Same goes for a lot of food — if it were brown, or, even worse, grey, it definitely wouldn't be as appetizing. This is where food dyes come in. While we can thank dyes for making our food more attractive, there are also some hefty health risks that dyes create.

The most widely used dyes — Red 40, Yellow 5, and Yellow 6 — are contaminated with cancer-causing substances, according to The Center for Science in the Public Interest. Red 3 is classified by the FDA as a carcinogen, but it's still widely used in foods. Besides cancer, the dyes can also cause hyperactivity and children, as well as allergic reactions.

This isn't just a radical nonprofit that's trying to eliminate dye usage. The British government asked manufacturers to stop using food dyes last year, and the European Union is putting a warning notice on foods containing dyes starting in July. If the same type of system is implemented in the U.S., we're assuming some companies will try to find a new way to color our food. We have a suggestion: natural ingredients. Last we checked, fruits come in all colors of the rainbow.

LEGISLATIVE ANALYSIS

Congress Must Protect People from Toxic Chemicals Known to Cause Harm:

- Bisphenol A (BPA): http://www.nrdc.org/health/toxics/bpa.asp
- Formaldehyde: http://www.nrdc.org/health/formaldehyde-fs.asp
- Phthalates: http://www.nrdc.org/health/phthalates.asp
- Flame Retardants TDCP and TCEP: http://www.nrdc.org/health/flameretardants-fs.asp
- Trichloroethylene (TCE): http://www.nrdc.org/health/trichloroethylene.asp
- Vinyl Chloride: http://www.nrdc.org/health/VinylChloride-fs.asp

Some of the ingredients in beauty products aren't that pretty. U.S. researchers report that one in eight of the 82,000 ingredients used in personal care products are industrial chemicals, including carcinogens, pesticides, reproductive toxins, and hormone disruptors. Many products include plasticizers (chemicals that keep concrete soft), degreasers (used to get grime off auto parts), and surfactants (they reduce surface tension in water, like in paint and inks). Imagine what that does to your skin, and to the environment.

Click here to read a list of cosmetic chemicals to avoid
The rainbow of food dyes in our grocery aisles has a dark side

Today's supermarket is a fun house of hues. Its aisles feature riotously colored processed foods perfectly engineered to appeal to the part of your brain that says "yum": Technicolor Starburst candy. Polychromatic Froot Loops. A rainbow of flavored juices.

Those hyper-saturated colors have come to seem normal, even natural, like the come-ons of tropical fruits. But they are increasingly produced through the magic of artificial food dyes, applied not just to candies and snack foods but to such seemingly all-natural products as pickles, salad dressing and some oranges.

Artificial dyes aren't just making your Yoplait Light Red Raspberry yogurt blush and your Kraft Macaroni and Cheese glow in the dark. They are causing behavioral problems and disrupting children's attention, according to a growing number of scientific studies. On Wednesday, following the lead of European regulators, a Food and Drug Administration advisory committee will begin a review of research on the behavioral effects of artificial dyes. In a significant turn from the agency's previous denials that dyes have any influence on children's behavior, an FDA staff report released last week concluded that synthetic food colorings do affect some children.

Concern about food dye is long-standing. In the 1800s, American food manufacturers began doctoring their wares with toxic pigments made from lead and copper. In the second half of that century, a revolution in organic chemistry brought artificial dyes made from coal tar — a relative advance over lead.

At the turn of the 20th century, margarine producers were making the most of the technology: They added new yellow dyes to their colorless product to better compete with butter. But the dairy industry lobbied for bans and taxes on colored margarine, and state legislatures and Congress obliged. Consumers who wanted their margarine yellow could open a separate packet of dye and mix it in themselves.

In 1906, Congress took up the question of whether artificial dyes were bad for consumers, with the first of several major acts. The most recent and stringent of them, passed in 1960, banned color additives that caused cancer in humans or animals. But the fate of one such additive, Red 3, illustrates how even strong legislation can be thwarted. Lab rats that were fed large amounts of the dye developed thyroid cancer, so in 1984 the acting FDA commissioner recommended banning it. However, fruit-cocktail producers, who relied on the dye to brighten maraschino cherries, pleaded with the Department of Agriculture to block the move. As a result, the FDA banned Red 3 only in cosmetics and topical drugs.

In the early 1990s, FDA and Canadian scientists found that Red 40, Yellow 5 and Yellow 6, the three most widely used dyes, were contaminated with likely human carcinogens. And while many foods, such as M&M's and Kellogg's Hot Fudge Sundae Pop Tarts, include as many as five different dyes, even today the carcinogenic potential of such combinations has not been tested.

Despite those concerns, parents continued to serve up meals and stuff their children's lunchboxes with more and more processed foods colored with dyes, stoking a five-fold increase in the per-capita production of food dyes over the past 50 years.

Over the same period, psychiatrists and teachers were seeing more attention and behavioral problems, while allergists were raising concerns about Yellow 5. Physician Benjamin Feingold's 1975 book, "Why Your Child Is Hyperactive," along with the additive-free diet it promoted, spawned numerous studies on the effect of additives on attention-deficit disorders.

In 2004, one of us co-authored an analysis of the best studies of food dyes' effects on behavior. That analysis found striking evidence that hyperactive children who consumed dyes became significantly more hyperactive than children who got a placebo.

At the same time, the British government funded two studies, each involving almost 300 children. Their results were even more startling: Artificial food dyes (in combination with a common preservative) could make even children with no known behavioral problems hyperactive and inattentive.

Health officials in the United Kingdom urged manufacturers to stop using the six dyes — including Red 40, Yellow 5 and Yellow 6 — involved in those studies. Next, the European Parliament required that foods containing those chemicals bear a label warning that the dyes "may have an adverse effect on activity and attention in children." That is seen by some as the death knell for artificial dyes throughout Europe.
Beyond the behavioral problems and cancer risks, the greatest hazard that dyes pose for children may also be the most obvious: They draw kids away from nutritious foods and toward brightly colored processed products that are high in calories but low in nutrients, such as fruit-flavored drinks and snack foods. Those types of foods are a major force in America's obesity epidemic, which, according to the Society of Actuaries, costs the nation $270 billion a year.

Artificial colorings are explicitly meant to manipulate consumers' perceptions. Manufacturers tout research showing that redness enhances the impression of sweetness, and that in tests with beverages and sherbets, the color of the product did more to influence consumers' perception of the flavor than the flavor itself. One dye marketer states that its colorings offer “a limitless palette, unmatched technology and the emotional connection between people and color.”

A world without harmful dyes does not mean a future of blandly beige snacks. A range of vivid natural colorings, made largely from plant extracts, is already in use in Europe and to a lesser extent in the United States. In Britain, for example, McDonald's Strawberry Sundaes are made without artificial coloring; here, Red 40 adds to the strawberry color. Both the British and American formulations of Nutri-Grain Strawberry cereal bars contain strawberries, but in Britain plant-based colorings add extra color, while in the United States Red 40 does the job.

Fortunately, some U.S. companies are switching to colorings found in nature. The bountiful shelves of Whole Foods and Trader Joe's are devoid of dyes, Necco has dropped artificial dyes from its iconic wafers, and Starbucks has banned dyes from its baked goods and drinks. Most companies will resist, because artificial dyes are brighter, cheaper and more stable than natural colorings. It's also a nuisance for them to reformulate their dyed products — and the government has given them no incentive to change.

Today, Britons enjoy all the colorful foods they have come to expect without many of the health risks they learned to avoid. Here, we get the same foods — but until the FDA bans synthetic dyes, we get them with a side order of dangerous and unnecessary chemicals.

David W. Schab is an assistant clinical professor of psychiatry at Columbia University. Michael F. Jacobson is the executive director of the Center for Science in the Public Interest.

Shedding Light on the Food Industry

by Robyn O'Brien

Visit her website here

A Texas native raised on Twinkies and PoBoys, Robyn O'Brien is a critically-acclaimed author, researcher and mother of four who has leveraged her experience as a food industry analyst to uncovering how one of life's most basic activities – eating – has become a risk to our health. Her work has been praised by Ted Turner, Dr. Oz, Erin Brockovich and seen in the New York Times, on CNN, the Today Show and other media.

In the years that she has been a speaker and a nationally recognized author, she has delivered inspiring messages to thousands of people around the country, from entrepreneurs to members of Congress to corporate professionals to mothers' groups, schools and universities. Her meticulously detailed research sheds light on policy, financial incentives and the skyrocketing rates of cancer, autism, obesity and allergies, and her story is sure to inspire you.

In her first book, The Unhealthy Truth: How Our Food Is Making Us Sick and What We Can Do About It, using the resources and skills that she developed as an analyst in the food and technology industries, Robyn diagnoses the failing American food system and its financially-driven incentive structure that has allowed additives into the American food supply that have either been banned or labeled from foods in other developed countries, especially those served to children.

TEDxAustin Robyn O'Brien 2011
**Krill Oil 48x Better Than Fish Oil?**

*Nutrition and Prevention*
Published on March 30, 2011  2 Comments

**Krill Oil 48x Better Than Fish Oil?**

*Read the original article here*

Written by Dr. Michael Eades

Krill isn't your average shrimp. (Photo: The Sun and Doves)

**Krill oil**, logically enough, comes from krill, which are small, shrimp like crustaceans that inhabit the cold ocean areas of the world, primarily the Antarctic and North Pacific Oceans.

Despite their small size—one to five centimeters in length—krill make up the largest animal biomass on the planet. According to Neptune Technologies, the Canadian company that holds the patent for krill oil extraction, there are approximately 500 million tons of krill roaming around in these northern seas, 110,000 tons of which are harvested annually.

**Krill oil**, like fish oil, contains both of the omega-3 fats, eicosapentanoic acid (EPA) and docosahexanoic acid (DHA), but hooked together in a different form...

In fish oil, these omega-3 fatty acids are found in the triglyceride form, whereas in krill oil they are hooked up in a double chain phospholipid structure. The fats in our own cell walls are in the phospholipid form.

Attached to the EPA leg of the phospholipid is a molecule of astaxanthin, an extremely potent anti-oxidant. The phospholipid structure of the EPA and DHA in krill oil makes them much more absorbable and allows for a much easier entrance into the mitochondria and the cellular...
nucleus. In addition to EPA and DHA, krill oil contains a complex phospholipid profile including phosphatidylcholine, a potent source of reductive-stress-reducing choline, which also acts as a natural emulsifier.

Krill oil contains vitamin E, vitamin A, vitamin D and canthaxanthin, which is — like astaxanthin — a potent anti-oxidant. The anti-oxidant potency of krill oil is such that when compared to fish oil in terms of ORAC (Oxygen Radical Absorptance Capacity) values, it was found to be 48 times more potent than fish oil.

The astaxanthin found in krill oil provides excellent protection against ultraviolet light and UV-induced skin damage. It was for this reason that I started taking krill oil to begin with—I discovered its other virtues later on.

A number of studies have shown that krill oil is tremendously effective in reducing LDL-cholesterol, raising HDL-cholesterol (up to 44% in some cases), and lowering blood sugar. It has been shown to be effective in treating the pain and inflammation from rheumatoid arthritis and aches and pains in general. One large study showed that krill oil has tremendous benefits in terms of symptom reduction in PMS and dysmenorrhea. And it has been shown to be effective in the treatment of adult ADHD. In all these studies krill oil was tested against fish oil and not simply a placebo.

Due to the rapid absorption of krill oil and the high anti-oxidant content there is virtually never the fishy burping and aftertaste sometimes experienced with fish oil. The jury is out right now on if and to what degree there is a problem for those people allergic to shrimp. Until the jury is in, I would be careful in taking krill oil if I had a shrimp allergy.

Are there any downsides to this substance?

Only one. It is a little more expensive than fish oil, but, as with all things, you get what you pay for. virtually all krill oil is produced by Neptune Technologies and shipped to the various supplement manufacturers, so any krill oil you get will have come from the same place and be the same dosage. The only unknown is how long it has been sitting around in a warehouse somewhere, which is, of course, the same unknown with fish oil. At least with krill oil, thanks to the high anti-oxidant content, the shelf life is much longer.

One last thing to remember: popping a couple of fish oil and krill oil caps don't give the same immediate relief as popping a NSAID [Non-Steroidal Anti-Inflammatory Drugs like Advil, ibuprofen, Aleve, etc.].

It takes a while—a couple of weeks in my case—for the fish oil/krill oil to provide the same degree of pain relief as the NSAID. The take home message is: don’t take your first dose and compare it to the relief you got with a dose of NSAID. In the study I mentioned in the last post, the subjects took the fish oil for two weeks along with their NSAIDs, then tapered off the drugs and treated their pain with the fish oil alone.

[Two of several clinical studies on Krill Oil (NKO) from PubMed can be found below the author bio.]

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About the author of this post:

Dr. Michael Eades is one of the foremost bariatric (obesity treatment) doctors in the US and the first to introduce insulin resistance to the mainstream. He is author of the international bestseller, Protein Power.

Clinical Studies:

“Omega-3 DHA and EPA for cognition, behavior, and mood: clinical findings and structural-functional synergies with cell membrane phospholipids.”

Kidd PM.

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The omega-3 fatty acids docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) are orthomolecular, conditionally essential nutrients that enhance quality of life and lower the risk of premature death. They function exclusively via cell membranes, in which they are anchored by phospholipid molecules. DHA is proven essential to pre- and postnatal brain development, whereas EPA seems more influential on behavior and mood. Both DHA and EPA generate neuroprotective metabolites. In double-blind, randomized, controlled trials, DHA and EPA combinations have been shown to benefit attention deficit/hyperactivity disorder (AD/HD), autism, dyspraxia, dyslexia, and aggression. For the affective disorders, meta-analyses confirm benefits in major depressive disorder (MDD) and bipolar disorder, with promising results in schizophrenia and initial benefit for borderline personality disorder. Accelerated cognitive decline and mild cognitive impairment (MCI) correlate with lowered tissue levels of DHA/EPA, and supplementation has improved cognitive function. Huntington disease has responded to EPA. Omega-3 phospholipid supplements that combine DHA/EPA and phospholipids into the same molecule have shown marked promise in
Phosphatidylserine with DHA/EPA attached (Omega-3 PS) has been shown to alleviate AD/HD symptoms. Krill omega-3 phospholipids, containing mostly phosphatidylcholine (PC) with DHA/EPA attached, markedly outperformed conventional fish oil DHA/EPA triglycerides in double-blind trials for premenstrual syndrome/dysmenorrhea and for normalizing blood lipid profiles. Krill omega-3 phospholipids demonstrated anti-inflammatory activity, lowering C-reactive protein (CRP) levels in a double-blind trial. Utilizing DHA and EPA together with phospholipids and membrane antioxidants to achieve a triple cell membrane synergy may further diversify their currently wide range of clinical applications.

Objectives: a) To evaluate the effect of Neptune Krill Oil (NKO) on C-reactive protein (CRP) on patients with chronic inflammation and b) to evaluate the effectiveness of NKO on arthritic symptoms. METHODS: Randomized, double blind, placebo controlled study. Ninety patients were recruited with confirmed diagnosis of cardiovascular disease and/or rheumatoid arthritis and/or osteoarthritis and with increased levels of CRP (>1.0 mg/dl) upon three consecutive weekly blood analysis. Group A received NKO (300 mg daily) and Group B received a placebo. CRP and Western Ontario and McMaster Universities (WOMAC) osteoarthritis score were measured at baseline and days 7, 14 and 30. RESULTS: After 7 days of treatment NKO reduced CRP by 19.3% compared to an increase by 15.7% observed in the placebo group (p = 0.049). After 14 and 30 days of treatment NKO further decreased CRP by 29.7% and 30.9% respectively (p < 0.001). The CRP levels of the placebo group increased to 32.1% after 14 days and then decreased to 25.1% at day 30. The between group difference was statistically significant; p = 0.004 at day 14 and p = 0.008 at day 30. NKO showed a significant reduction in all three WOMAC scores. After 7 days of treatment, NKO reduced pain scores by 28.9% (p = 0.050), reduced stiffness by 20.3% (p = 0.001) and reduced functional impairment by 22.8% (p = 0.008). CONCLUSION: The results of the present study clearly indicate that NKO at a daily dose of 300 mg significantly inhibits inflammation and reduces arthritic symptoms within a short treatment period of 7 and 14 days.

NEW Studies Reveal Alarming Hidden Cause of Breast Cancer

By Russell L. Blaylock, MD

Breast cancer is one of the leading causes of cancer death in women worldwide and breast cancer rates are increasing rapidly.

A compelling number of studies, though not all, have shown that free iron concentrations in breast tissue, especially the ductal tissue, is playing a major role in stimulating cancer development and eventual progression to aggressive, deadly cancers.iron are needed for DNA replication in rapidly dividing cells. Recent report from the Department of Biomolecular Sciences in Urbino Italy, found that fluid taken from the nipple of cancer patients contained significantly higher levels of aluminum than did nipple fluid taken from women without breast cancer—approximately twice as much aluminum.

A number of studies have found that extracting nipple fluid by a breast pump (in both premenopausal and postmenopausal women) is a simple way to study the microenvironment of the ductal tissue, the site of development of most breast cancers. Examining this ductal fluid is an excellent way to measure such things as iron levels, ferritin (an iron-binding protein), CRP (a measure of breast inflammation) and aluminum.

The researchers also found that women with breast cancer had much higher levels of ferritin, an iron transport protein, in their breast fluid, which was 5X higher in women with breast cancer. This observation has been confirmed in other studies.
In previous studies researchers found that one's intake of iron did not necessarily correlate with risk of breast cancer, but rather the release of iron from its protective proteins, such as ferritin and transferrin was critical.\(^7\)

This distinction is very important and explains why some studies found no link between iron intake in the diet and breast cancer incidence.\(^8\)

**Free Iron Can Be Very Dangerous**

Over 90% of iron absorbed from your diet is normally bound to these protective proteins. Recent studies have shown that some things we do can cause too much of the iron to be released into surrounding tissues, and if this iron exists as free iron, it can trigger intense inflammation, free radical generation and lipid peroxidation.

Bound iron is relatively harmless.

So, what can cause these protective proteins to release their iron?

One factor is an excessive alcohol intake. Studies by Lee et al have shown that women who drink greater than 20 grams of alcohol a day significantly increase the free iron in their breast tissue and have a higher incidence of invasive breast cancer—the most deadly form.\(^9\)

It has also been shown that excessive estrogen can displace iron from its protective proteins, thus increasing free iron levels and associated breast cancer risk.\(^10\) This helps explain the link between high estrogen levels and breast cancer.

Of more importance than the total intake of iron is where the iron ends up that is absorbed from your food.

As stated, most of it is bound to protective proteins, such as transferrin in the blood and ferritin within cells. If you have a lot of extra space within these proteins for binding iron, then a high dietary iron intake would be less harmful.

Previously it was thought that a spillover of free iron occurred only when the protective proteins (transferrin and ferritin) were fully saturated, as we see with the condition hemochromatosis.

**How Aluminum and Alcohol Worsen Iron Toxicity**

We now know that both aluminum and alcohol can displace the iron from its protective proteins, raising the level of harmful free iron, even when these protective proteins are not fully saturated with iron.\(^9\)

If this occurs within the breast, as this study demonstrates, free iron levels in the breast ductal tissue can become dangerously high and over time induce malignant tumor formation.

The question to be asked is–where did the aluminum come from?

The authors of the paper suggested underarm antiperspirants as a possibility. But, there is another source that is becoming increasingly a problem and that is from vaccine adjuvants.

**Vaccines are a Major Source of Aluminum for Many**

Many inactivated vaccines contain aluminum salts to boost the immune reaction. Studies have shown that this aluminum is slowly dispersed all over the body and may be concentrated in breast ducts.\(^11\)

The amount of aluminum in vaccines is tremendous, especially in such vaccines as the anthrax vaccine, hepatitis vaccine and tetanus vaccine.

Since many American children are being exposed to multiple doses of aluminum containing vaccines by the time they are 6 years old, one would expect very high exposures to injected aluminum.

A recent study by Lucija Tomljenovik and Chris Shaw found that a newborn receives a dose of aluminum that exceeds FDA safety limits (5mg/kg/day) for injected aluminum by 20-fold, and at 6 months of age a dose that was 50-fold higher than FDA safety limits.\(^12\)

Aluminum at this young age will accumulate in various tissues and with new vaccine recommendations, children and young adults may be exposed to many more aluminum containing vaccines every year throughout life.

With the ability of aluminum to displace iron from its protective proteins, we may not only see a dramatic increase in breast cancer, but also other iron-related diseases, such as liver degeneration, neurodegenerative disease, diabetes, heart failure and atherosclerosis.\(^13\) No one is addressing this very real danger.
Earthquake Preparedness

How to Prepare for an Earthquake

read the original article here

Earthquakes can be very dangerous and can occur at any time of the year. Identifying potential hazards ahead of time and advance planning can reduce the chances of death, serious injury, or property damage. When preparing for an earthquake, plan on having enough food, water, clothing, medical supplies and other necessary equipment for you and your family for at least 72 hours. Assistance from local fire and police departments may not be available immediately following an earthquake.

This checklist will help you get started on the essentials. (This information is taken from http://earthquake.usgs.gov/learn/faq/?faqID=77):

1. Fire extinguisher
2. Adequate supplies of medications that you or your family are taking
3. Crescent and pipe wrenches to turn off gas and water supplies
4. First aid kit and handbook
5. Flashlights with extra bulbs and batteries
6. Portable radio with extra batteries
7. Water for each family member for at least 3 days (allow at least 1 gallon per person per day) and purification tablets or chlorine bleach to purify drinking water from other sources
8. Canned and packaged foods, enough for several days and a mechanical can opener. Extra food for pets if necessary.
9. Camp stove or barbecue to cook on outdoors (store fuel out of reach of children)
10. Waterproof, heavy-duty plastic bags for waste disposal

Before The Earthquake Strikes - The following information is taken from: www.fema.gov/hazard/earthquake/index.shtm:

1. Pick “safe places” in each room of your home. A safe place could be under a sturdy table or desk or against an interior wall away from windows, bookcases, or tall furniture that could fall on you. The shorter the distance to move to safety, the less likely you will be injured. Injury statistics show that people moving as little as 10 feet during an earthquake's shaking are most likely to be injured. Also pick safe places, in your office, school and other buildings you are frequently in.
2. Practice drop, cover, and hold-on in each safe place. Drop under a sturdy desk or table and hold on to one leg of the table or desk. Protect your eyes by keeping your head down. Practice these actions so that they become an automatic response. When an earthquake or other disaster occurs, many people hesitate, trying to remember what they are supposed to do. Responding quickly and automatically may help protect you from injury. Practice drop, cover, and hold-on at least twice a year. Frequent practice will help reinforce safe behavior.
3. Wait in your safe place until the shaking stops, and then check to see if you are hurt. You will be better able to help others if you take care of yourself first, then check the people around you. Move carefully and watch out for things that have fallen or broken, creating hazards. Be ready for additional earthquakes called “aftershocks.”

4. Be on the lookout for fires. Fire is the most common earthquake-related hazard, due to broken gas lines, damaged electrical lines or appliances, and previously contained fires or sparks being released. If you must leave a building after the shaking stops, use the stairs, not the elevator. Earthquakes can cause fire alarms and fire sprinklers to go off. You will not be certain whether there is a real threat of fire. As a precaution, use the stairs.

5. If you’re outside in an earthquake, stay outside. Move away from buildings, trees, streetlights, and power lines. Crouch down and cover your head. Many injuries occur within 10 feet of the entrance to buildings. Bricks, roofing, and other materials can fall from buildings, injuring persons nearby. Trees, streetlights, and power lines may also fall, causing damage or injury.

6. Inform guests, babysitters, and caregivers of your plan. Everyone in your home should know what to do if an earthquake occurs. Assure yourself that others will respond properly even if you are not at home during the earthquake.

7. Get training. Take a first aid class from your local Red Cross chapter. Get training on how to use a fire extinguisher from your local fire department. Keep your training current. Training will help you to keep calm and know what to do when an earthquake occurs.

8. Discuss earthquakes with your family. Everyone should know what to do in case all family members are not together. Discussing earthquakes ahead of time helps reduce fear and anxiety and lets everyone know how to respond.

9. Talk with your insurance agent. Different areas have different requirements for earthquake protection. Study locations of active faults, and if you are at risk, consider purchasing earthquake insurance.

**During an Earthquake**

1. Drop, cover, and hold on! Move only a few steps to a nearby safe place. It is very dangerous to try to leave a building during an earthquake because objects can fall on you. Many fatalities occur when people run outside of buildings, only to be killed by falling debris from collapsing walls. In U.S. buildings, you are safer to stay where you are. Broken glass on the floor has caused injury to those who have rolled to the floor or tried to get to doorways.

2. If you are in bed, hold on and stay there, protecting your head with a pillow. You are less likely to be injured staying where you are. If you are outdoors, find a clear spot away from buildings, trees, streetlights, and power lines. Drop to the ground and stay there until the shaking stops. Injuries can occur from falling trees, street-lights and power lines, or building debris.

3. If you are in a vehicle, pull over to a clear location, stop and stay there with your seatbelt fastened until the shaking has stopped. Trees, power lines, poles, street signs, and other overhead items may fall during earthquakes. Stopping will help reduce your risk, and a hard-topped vehicle will help protect you from flying or falling objects. Once the shaking has stopped, proceed with caution. Avoid bridges or ramps that might have been damaged by the quake.

4. Stay indoors until the shaking stops and you’re sure it’s safe to exit. More injuries happen when people move during the shaking of an earthquake. After the shaking has stopped, if you go outside, move quickly away from the building to prevent injury from falling debris.

5. Stay away from windows. Windows can shatter with such force that you can be injured several feet away.

6. In a high-rise building, expect the fire alarms and sprinklers to go off during a quake. Earthquakes frequently cause fire alarm and fire sprinkler systems to go off even if there is no fire. Check for and extinguish small fires, and, if exiting, use the stairs.

7. If you are in a coastal area, move to higher ground. Tsunamis are often created by earthquakes.

8. If you are in a mountainous area or near unstable slopes or cliffs, be alert for falling rocks and other debris that could be loosened by the earthquake. Landslides commonly happen after earthquakes.

**After the Earthquake**

1. Check yourself for injuries. Often people tend to others without checking their own injuries. You will be better able to care for others if you are not injured or if you have received first aid for your injuries.

2. Protect yourself from further danger by putting on long pants, a long-sleeved shirt, sturdy shoes, and work gloves. This will protect you from further injury by broken objects.

3. After you have taken care of yourself, help injured or trapped persons. If you have it in your area, call 9-1-1, and then give first aid when appropriate. Don’t try to move seriously injured people unless they are in immediate danger of further injury.

4. Look for and extinguish small fires. Eliminate fire hazards. Putting out small fires quickly, using available resources, will prevent them from spreading. Fire is the most common hazard following earthquakes. Fires followed the San Francisco earthquake of 1906 for three days, creating more damage than the earthquake.

5. Leave the gas on at the main valve, unless you smell gas or think it’s leaking. It may be weeks or months before professionals can turn gas back on using the correct procedures. Explosions have caused injury and death when homeowners have improperly turned their gas back on by themselves.

6. Clean up spilled medicines, bleaches, gasoline, or other flammable liquids immediately and carefully. Avoid the hazard of a chemical emergency.

7. Open closet and cabinet doors cautiously. Contents may have shifted during the shaking of an earthquake and could fall, creating further damage or injury.

8. Inspect your home for damage. Get everyone out if your home is unsafe. Aftershocks following earthquakes can cause further damage to unstable buildings. If your home has experienced damage, get out before aftershocks happen.
9. Help neighbors who may require special assistance. Elderly people and people with disabilities may require additional assistance. People who care for them or who have large families may need additional assistance in emergency situations.

10. Listen to a portable, battery-operated radio (or television) for updated emergency information and instructions. If the electricity is out, this may be your main source of information. Local radio and local officials provide the most appropriate advice for your particular situation.

11. Expect aftershocks. Each time you feel one, drop, cover, and hold on! Aftershocks frequently occur minutes, days, weeks, and even months following an earthquake.

12. Watch out for fallen power lines or broken gas lines, and stay out of damaged areas. Hazards caused by earthquakes are often difficult to see, and you could be easily injured.

13. Stay out of damaged buildings. If you are away from home, return only when authorities say it is safe. Damaged buildings may be destroyed by aftershocks following the main quake.

14. Use battery-powered lanterns or flashlights to inspect your home. Kerosene lanterns, torches, candles, and matches may tip over or ignite flammables inside.

15. Inspect the entire length of chimneys carefully for damage. Unnoticed damage could lead to fire or injury from falling debris during an aftershock. Cracks in chimneys can be the cause of a fire years later.

16. Take pictures of the damage, both to the house and its contents, for insurance claims.

17. Avoid smoking inside buildings. Smoking in confined areas can cause fires.

18. When entering buildings, use extreme caution. Building damage may have occurred where you least expect it. Carefully watch every step you take.

19. Examine walls, floor, doors, staircases, and windows to make sure that the building is not in danger of collapsing.

20. Check for gas leaks. If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas, using the outside main valve if you can, and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.

21. Look for electrical system damage. If you see sparks or broken or frayed wires, or if you smell burning insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice.

22. Check for sewage and water line damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water from undamaged water heaters or by melting ice cubes.

23. Watch for loose plaster, drywall, and ceilings that could fall.

24. Use the telephone only to report life-threatening emergencies. Telephone lines are frequently overwhelmed in disaster situations. They need to be clear for emergency calls to get through.

25. Watch animals closely. Leash dogs and place them in a fenced yard. The behavior of pets may change dramatically after an earthquake. Normally quiet and friendly cats and dogs may become aggressive or defensive.
Square Foot Gardening is the practice of planning small but intensively planted gardens. The phrase “square foot gardening” was popularized by Mel Bartholomew in a 1981 Rodale Press book and subsequent PBS television series. A full-length companion DVD, Square Foot Gardening (2010), was recently released in collaboration with Patti Moreno the Garden Girl. The practice combines concepts from other organic gardening methods, including a strong focus on compost, closely planted raised beds and bio-intensive attention to a small, clearly defined area. Proponents claim that the method is particularly well-suited for areas with poor soil, beginning gardeners or as adaptive recreation for those with disabilities.

The original square-foot-gardening method used an open-bottomed box to contain a finite amount of soil, which was divided with a grid into sections. To encourage variety of different crops over time, each square would be planted with a different kind of plant, the number of plants per square depending on an individual plant’s size. A single tomato plant might take a full square, as might herbs such as oregano, basil or mint, while most strawberry plants could be planted four per square, with up to sixteen radishes per square. Tall or climbing plants such as maize or pole beans might be planted in a northern row (south in the southern hemisphere) so as not to shade other plants, and supported with lattice or netting.

The logic behind using smaller beds is that they are easily adapted, and the gardener can easily reach the entire area, without stepping on and compacting the soil. In the second edition, Bartholomew suggests using a “weed barrier” beneath the box, and filling it completely with “Mel’s mix,” a combination by volume of one third of decayed Sphagnum “peat moss”, one-third expanded vermiculite and one-third blended compost. For accessibility, raised boxes may have bottoms to sit like tables at a convenient height, with approximately 6” (15cm) of manufactured soil per square foot.

In this method, the garden space is divided into beds that are easily accessed from every side. A 4’ x 4’, 16 sq ft (1.5 m2) or 120 cm x 120 cm, 1.4 m2 garden is recommended for the first garden, and a path wide enough to comfortably work from should be made on each side of the bed, if possible, or if the bed must be accessed by reaching across it, a narrower one should be used so that no discomfort results from tending the garden. Each of the beds is divided into approximately one square foot units and marked out with sticks, twine, or sturdy slats to ensure that the square foot units remain visible as the garden matures.

Different seeds are planted in each square, to ensure a rational amount of each type of crop is grown, and to conserve seeds instead of overplanting, crowding and thinning plants. Common spacing is one plant per square for larger plants (broccoli, basil, etc.), four plants per square for medium large plants like lettuce, nine plants per square for medium-small plants like spinach, and sixteen per square for small plants such as onions and carrots. Plants that normally take up yards of space as runners, such as squash or cucumbers, are grown vertically on sturdy frames that are hung with netting or string to support the developing crops. Ones that grow deep underground, such as potatoes or carrots, are grown in a square foot section that has foot tall sides and a planting surface above the ground, so that a foot or more of framed soil depth is provided above the garden surface rather than below it.

The beds are weeded and watered from the pathways, so the garden soil is never stepped on or compacted. Because a new soil mixture is used to create the garden, and a few handfuls of compost are added with each harvest to maintain soil fertility over time, the state of the site’s underlying soil is irrelevant. This gardening method has been employed successfully in every region, including in deserts, on high arid mountain plateaus, in cramped urban locations, and in areas with polluted or high salinity soils. It is equally useful for growing flowers, vegetables, herbs and some fruits in containers, raised beds, on tabletops or at ground level, in only 4 to 6 inches (150 mm) of soil. A few seeds per square foot, the ability to make compost, to water by hand, and to set up the initial garden in a sunny position or where a container, table or platform garden may be moved on wheels to receive light is all that is needed to set up a square foot garden.

**Benefits of Square Foot Gardening**

Much less work. Conventional gardening requires heavy tools to loosen the soil, whereas in this method, the soil is never compacted and it remains loose and loamy. Weeding takes only seconds to minutes, due to the light soil, raised beds, and easily accessed plants. Harvests per foot of garden are increased due to the rich soil mixture, well-spaced plants, and lack of weeds produced when following Mel Bartholomew’s method.
Water Savings. The soil mixture that is advised has water-holding capacities, so that the garden needs water less frequently, and in much smaller quantities than when using other gardening methods. Water is also spared by hand-watering directly at the plant roots, so that there is very little waste[1] and tender young plants and seedlings are preserved. Very little weeding. One benefit of this close planting is that the vegetables form a living mulch, and shade out many weed seeds before they have a chance to germinate.

Pesticide / Herbicide Free. Natural insect repellent methods like companion planting (i.e. planting marigolds or other naturally pest-repelling plants) become very efficient in a close space and thus, pesticides are not necessary. The large variety of crops in a small space also prevents plant diseases from spreading easily[1] Accessible. A plywood bottom can be attached to the bottom of a box, which can then be placed on a tabletop or raised platform for those who wish to garden without bending or squatting, or to make gardening easy for wheelchair, cane or walker users.

Covers and Cages. Because all beds are small (4'x4' or smaller), making covers or cages to protect plants from pests, cold, or sun is more practical than with larger gardens.

Square foot gardening is especially compatible with:

- Raised bed gardening
- Companion planting
- French intensive gardening
- Organic gardening

Read, “Square Foot Gardening”.

Andrew Vowles; Vern McGrath, Susan Todd (June/July 2002). “The Plot Thickens: Square-foot gardening offers bigger yields in less space”. Techniques (Canadian Gardening (CG Online)): p. 96. Retrieved 2007-08-06. Note: Publication Information found in 2002 Article Index and is not available on-line with the article

Mel Bartholomew Interview – An Interview With the Creator of Square Foot Gardening

Official Site of Square Foot Gardening website of creator Mel Bartholomew, includes info on how to get started, tips and FAQs

**Why Aren’t GMO Foods Labeled?**

**Nutrition and Prevention, The Environment**

**Published on March 14, 2011 | 1 Comment**

**Why Aren’t GMO Foods Labeled?**

**Posted By Dr. Mercola | March 09 2011 | 37,688 views**

**Read the original article here**

You can avoid sugar, aspartame, trans-fats, or MSG if you’re a savvy reader of labels. But if you want to avoid genetically modified organisms (GMO's), it's not so easy. They're not listed on labels. You could buy organic foods, which by law can't contain more than 5 percent GMO's — but now that might not work either.

The U.S. Department of Agriculture has approved three new kinds of genetically engineered foods — alfalfa, a type of corn, and sugar beets. And the FDA will likely soon approve GM salmon, which would become the first genetically modified animal to be sold in the U.S., but probably not the last. And the FDA and USDA will not require any of these products, or foods containing them, to be labeled as genetically engineered.
This despite the fact that over 95 percent of people polled say they think GM foods should require a label.

According to an editorial in the New York Times:

“Even more than questionable approvals, it's the unwillingness to label these products as such — even the G.E. salmon will be sold without distinction — that is demeaning and undemocratic, and the real reason is clear: producers and producer-friendly agencies correctly suspect that consumers will steer clear of G.E. products if they can identify them. Which may make them unprofitable. Where is the free market when we need it?”

Even more alarming, Dr. Don M. Huber, one of the senior scientists in the U.S., has alerted the federal government to a newly discovered organism related to GM crops may be causing plant death, and infertility and spontaneous abortion in animals fed GM crops.

Dr. Huber believes the appearance and prevalence of this unnamed new organism may be related to the nation's over-reliance on the weed killer known as Roundup, and to genetically engineered Roundup-Ready crops.

In a letter to Secretary of Agriculture Tom Vilsack, Huber called on the government to immediately stop deregulation of Roundup Ready crops. According to the Farm and Ranch Freedom Alliance, the letter read, in part:

“Based on a review of the data, it is widespread, very serious, and is in much higher concentrations in Roundup Ready (RR) soybeans and corn—suggesting a link with the RR gene or more likely the presence of Roundup. This organism appears NEW to science! ... I believe the threat we are facing from this pathogen is unique and of a high-risk status. In layman's terms, it should be treated as an emergency.”

And finally, in other alarming GM crop related news, Terry Redman, the West Australian Minister for Agriculture, wants to redefine the word “organic” to include genetically modified (GM) crops. Not that the difference between organic and GM crops will be a distinction for much longer anyway, according to current farming trends.

Some organic farmers, of course, have already unwillingly been growing GM crops in their fields. Steve Marsh, an Australian organic farmer, one year found his wheat and oats testing 70 percent positive for novel DNA thanks to cross-pollination from nearby farms.

Monsanto, of course, thinks the farmer should pay them for what amounts to the complete loss of his organic farm business — no matter that the genes were most likely wind or bee-propagated, they say they were illegally in his plants, and he should pay them $400,000...

Lastly, are GM crops at least being tested for safety? Somewhere?

The answer is no, and we might never learn the true risks of GM crops during this generation, because the multinational companies that control the patents on GM seeds refuse to allow them to be used by independent scientists for safety testing. This is apparently just another legal perk of having a corporate patent on what has now become a major part of the American food chain. According to a recent CBS/NYT poll, 89 percent of respondents said they wanted to see GE foods labeled as such.

Sources:

- CBS/NYT Poll
- Sydney Morning Herald February 10, 2011
- Los Angeles Times February 13, 2011
- Farm and Ranch Freedom Alliance February 2011
- MSNBC Poll

Dr. Mercola's Comments:

The danger posed by GM crops are no longer theoretical, research scientists have now uncovered a very real link between a previously unknown pathogen and either Roundup weed killer or Roundup Ready crop seeds.

GM crops have invaded our food supply, and more GM foods are in the pipeline, but with them come a long list of unanswered concerns besides the appearance of this new dangerous and deadly pathogen.

According to the above article in the NY Times:
This quote sums up many of the multi-layered concerns that now exist regarding genetically modified (GM) foods. First off, they're impossible to keep from cross-pollinating with non-GM crops, thanks to bees and the wind, so even “organic” crops may become contaminated by GM pollen, thereby turning entire organic fields into GM fields overnight.

**Crazy Patent Laws Prevent Independent Researchers from Studying GMO Hazards**

Next, GM food health hazards have neither been studied beyond 30 days, nor are they currently being studied. This is because the corporations controlling the seeds restrict access to safety studies, citing the current patent laws.

That’s right, GM foods are patented inventions that are protected under copyright and proprietary information laws. And the corporations controlling the seeds only allow them to be studied under very limited conditions, and rarely (if ever) do they permit them to be studied for safety by anyone but the USDA (who hasn’t yet seen the need to conduct rigorous long-term studies).

Lastly, these GM foods now widely appear in our food supply — unlabeled. I’ve gone on record saying that due to the amount of GM crops now grown in this country (over 90 percent of all corn is GM corn and over 95 percent all soy is GM soy) EVERY processed food you encounter at your local supermarket that does not bear the “USDA Organic” label is filled with GM components.

So you're eating GM foods, and you have been for the last decade, whether you knew it or not. You can thank Congress for this, and the USDA and Monsanto. What ultimate impact these GM foods will have on your health is still unknown, but increased disease, infertility and birth defects appear to be on the top of the list of most likely side effects.

**Are GM Food Supporters Even Aware of the Dangers?**

Even the staunchest supporter of GM foods must be alarmed when they hear about a new, previously undiscovered electron microscopic pathogen in the shape of a medium-sized virus that has been discovered which appears to significantly impact the health of plants, animals, and probably human beings.

How can everyone NOT be concerned by this new discovery?

Dr. Huber describes this dangerous new creature as a “micro-fungal like organism”, the first such micro-fungus ever seen or identified. He also says there’s “strong evidence that this infectious agent promotes diseases of both plants and mammals, which is very rare.”

So now we have our first ever confirmed new species to come out of America’s misguided GM food experiment, that is not only the first of its kind ever seen by scientists, but also most likely the first of its kind to ever exist on this planet. And what a surprise, it appears to be very dangerous!

Again, according to Dr. Huber:

“(this new organism) deserves immediate attention with significant resources to avoid a general collapse of our critical agricultural infrastructure.”

**Is Dr. Huber Being an Alarmist?**

This new micro-fungal organism is associated with something called Sudden Death Syndrome (SDS) in soy and is also found in a large variety of livestock given GM feed who experience both spontaneous abortions and infertility.

According to Dr. Huber:

“I have studied plant pathogens for more than 50 years. We are now seeing an unprecedented trend of increasing plant and animal diseases and disorders. This pathogen may be instrumental to understanding and solving this problem.”

“The pathogen may explain the escalating frequency of infertility and spontaneous abortions over the past few years in US cattle, dairy, swine, and horse operations. These include recent reports of infertility rates in dairy heifers of over 20%, and spontaneous abortions in cattle as high as 45%.”

“For example, 450 of 1,000 pregnant heifers fed wheatleg experienced spontaneous abortions. Over the same period, another 1,000 heifers from the same herd that were raised on hay had no abortions. High concentrations of the pathogen were confirmed on the wheatleg, which likely had been contaminated by GM crops.”

“A majority of our foods already contain GMOs and there’s little reason to think more isn’t on the way. It seems our “regulators” are using us and the environment as guinea pigs, rather than demanding conclusive tests. And without labeling, we have no say in the matter whatsoever.”
Dr. Huber goes on to say that this information could lead to the collapse of the US soy and corn export markets, and could also lead to disruptions in both domestic food supply and animal feed supply. He has written to USDA Secretary Tom Vilsack, and urged his immediately reply to the issue with both resources to study the problem presented by this new pathogen and leadership to address this new threat facing our nation's food supply.

But…

**Why the US Department of Agriculture Secretary is Unlikely to Act on this Danger**

Former Iowa Governor Tom Vilsack, now the Secretary of Agriculture, was an appointment that took place despite a massive public outcry. Why?

As the Organic Consumers Association (OCA) points out:

- Vilsack has been a strong supporter of genetically engineered crops, including bio-pharmaceutical corn.
- The biggest biotechnology industry group, the Biotechnology Industry Organization, named Vilsack Governor of the Year. He was also the founder and former chair of the Governor's Biotechnology Partnership.
- When Vilsack created the Iowa Values Fund, his first poster child of economic development potential was Trans Ova and their pursuit of cloning dairy cows.
- The undemocratic and highly unpopular 2005 seed pre-emption bill was Vilsack's brainchild. The law strips local government's right to regulate genetically engineered seed (including where GE can be grown, maintaining GE-free buffers or banning GE corn locally).
- Vilsack is an ardent supporter of corn and soy-based biofuels, which use as much or more fossil fuel energy to produce them as they generate, while driving up world food prices and literally starving the poor.
- Overall, Vilsack's record is one of aiding and abetting Concentrated Animal Feeding Operations (CAFOs) and promoting animal cloning.

So getting your hopes up that Dr. Huber's letter will find a friendly audience in Secretary Vilsack is likely a naïve proposition.

**GM Crops Already Caused Mass Suicides in India in the 1990s**

According to another source article above, GM crops are already responsible for the deaths of 200,000 Indian farmers. So says Dr Vandana Shiva, physicist, philosopher, activist and winner of last year's Sydney Peace Prize.

According to Dr. Shiva, there is a typical pattern to this “mass suicide”. Farmers, who have been stricken by drought and poverty, become so enraptured by Monsanto's promises of wealth if they switch to their GM crops, begin taking on debt to convert to the company's GM seeds (which are hundreds of times more expensive than traditional seed).

The GM seeds are touted as resisting Monsanto's herbicide Roundup, as well as being single-season seeds that must be purchased every planting season.

This transaction creates an ongoing contract where the farmer is perennially bound to continue purchasing both Roundup and GM seeds from Monsanto. This new economic structure, which replaces the “heirloom seed” economy where the farmers saved their seeds year after year, creates an environment where debt piles up on top of debt, because Monsanto's promises of increased yields are a myth.

Eventually the debt becomes insurmountable and: “One day, rather than spray pesticide on the soil, the farmer swallows a cupful himself, leaving his family landless, foodless, destitute.”

**The FDA is also Under Monsanto Influence**

Public health officials like the West Australian Minister For Agriculture and the American deputy FDA commissioner Michael Taylor are examples of a breed of public officials who are unofficially doing the private bidding of the multi-national GM food corporations at the expense of public health and safety.

According to Jeffrey Smith, the leading spokesperson on the dangers of GM foods:

“If GMOs are indeed responsible for massive sickness and death, then the individual who oversaw the FDA policy that facilitated their introduction holds a uniquely infamous role in human history. That person is Michael Taylor. He had been Monsanto's attorney before becoming policy chief at the FDA. Soon after, he became Monsanto's vice president and chief lobbyist.”
But Michael Taylor's mission to allow GM foods into the world food supply pales in comparison to the new mission of the GM food conglomerates — to have GM foods included as part of “organic” crop labeling.

Because consumers are getting wise to their tricks and are flocking more and more to organic counterparts of GM options, the GM food companies are now lobbying to have GM crops included under the organic banner.

Will the GM food conglomerates succeed in this mission?

Based on their previous success of getting virtually untested GM foods into the food supply, having GM foods remain in the food supply unchallenged by government regulators, and introducing new GM strains of alfalfa, corn and salmon that look likely to very soon receive approval to join the US food supply, it’s a fairly safe bet that one day soon you will read in your local newspaper that GM foods have been reclassified as organic.

And when that happens, there will be no “Non-GM” food left in our food supply.

What You Can Do To Get Involved

If you don't already have a copy of the Non-GMO Shopping Guide, please print one out and refer to it often. It can help you identify and avoid foods with GMOs. Also remember to look for products (including organic products) that feature the Non-GMO Project Verified Seal to be sure that at-risk ingredients have been tested for GMO content.

You can also download the free iPhone application that is available in the iTunes store. You can find it by searching for ShopNoGMO in the applications.

If you’re feeling more ambitious, you can also order the Non-GMO Shopping Tips brochure from the Institute of Responsible Technology in bulk and give it to your family and friends.

Also don’t let Secretary Vilsack ignore this new problem of a micro-fungal pathogen that may be responsible for killing plants, animals and possibly humans!

To again quote Dr. Huber’s letter to Secretary Vilsack:

“Based on a review of the data, [this dangerous new pathogen] is widespread, very serious, and is in much higher concentrations in Roundup Ready (RR) soybeans and corn—suggesting a link with the RR gene or more likely the presence of Roundup. This organism appears NEW to science! ... I believe the threat we are facing from this pathogen is unique and of a high-risk status. In layman’s terms, it should be treated as an emergency.”

You can also do your part to protect your health and the health of your family by avoiding processed foods loaded with GM components and eating whole, live foods that contain the nutrients your body needs to thrive.

Always buy USDA Organic products when possible, or buy your fresh produce and meat from local farmers, and especially avoid food products containing anything related to corn or soy that are not organic, as any foods containing these two non-organic ingredients now have a virtual 100 percent chance of containing GM foods.

Square Foot Gardening — Grow more in less space

Becoming Resilient, Gardening
Published on March 4, 2011

Square Foot Gardening

Many thanks to Mel Bartholomew and his book: “All New Square Foot Gardening” (available at many libraries also).

www.squarefootgardening.com

Read the original article here

Covered on this page:
Advantages of Square Foot Gardening
How To Make a Square Foot Garden Raised Bed
How To Make a Square Foot Garden Raised Bed

Planting your Square Foot Garden

Adaptations for Unique Situations

Advantages of Square Foot Gardening (sfg): (back to top)

- **Square Foot Gardening (sfg) perfect for Beginners.** Most beginners tend to enthusiastically try to plant a much bigger vegetable garden than they can possibly manage. This results in a big mess of an untended, weedy vegetable garden, with little yield. It also provides a generally unpleasant gardening experience.

  The square foot garden, however, is far more manageable and actually requires less work.

- **Square Foot Gardening (sfg) perfect family project for Children.** Give each child their own square foot garden (sfg) to plan, plant, and manage. Besides learning about the science and art of vegetable gardening, a square foot garden project also teaches planning/reasoning skills, basic mathematics, patience, and discipline.

- **Very Few Weeds with Square Foot Gardening** Because you're using a perfect blend of soil to nourish your plants, there should be few weed seeds that are imbedded in your square foot garden bed. You may pick up a few weeds that place themselves there through nature (wind, etc.), but they're easy to pick out.

  One of my biggest worries when weeding the garden is which is a weed, and which is the sprout that I want to keep. With square foot gardening, you know precisely where you planted your seeds. Anything growing outside of that precise location, is a weed and needs to be removed. It takes the stress out of weeding!

**It Doesn't Matter What Your Soil Is Like, With Square Foot Gardening**

In your square foot garden, you build your vegetable garden bed from the ground up. It doesn't matter what type of soil is underneath, as you create the perfect soil for your vegetable garden in the raised bed. It's far more efficient, as you're more concentrating your efforts to the actual gardening space.

In a traditional garden, you spend hours (years) and significant money to treat and condition the soil into something that's usable. And, most of that dirt (that you so carefully created) doesn't get used (except, perhaps, by weeds). Square foot gardening concentrates your soil-building efforts to only the garden space that you're actually going to use.

- **No More Rotor-Tilling, with Square Foot Gardening** (Need I say more?)

- **No Fertilizer Needed, with Square Foot Gardening** If you use the recommended blend of soil (6" of soil is all you need for your square foot garden bed), you will not need to fertilize your vegetable (or flower) garden. The soil will provide all the nutrients that are needed.

- **Less Water Needed, with Square Foot Gardening** Because you will be growing your vegetables and flowers in a concentrated space, you will spend less water (and less time) watering your garden

- **Less Seed Needed for your Square Foot Garden** You will be maximizing your yield in a small space, so you will find that you need much fewer seeds for your garden than you did with the traditional in-ground “row” style garden.

How to Make A Square Foot Garden Raised Bed: (back to top)

Location: Pick a spot that's not too far from your house. Your square foot garden bed will be pretty & you want to be able to enjoy it. Plus, the closer it is to the house, the more likely you will be to keep it tended. Pick a reasonably flat location, with plenty of sunshine. It's best to place the garden bed away from trees and shrubs, as their roots will search out your garden bed area.

Materials:

You will need the following materials, for one complete Square Foot Garden Bed.

- four (untreated) boards, 2"x 6"x 4' (most lumber yards will cut the boards to size for no additional cost)
- six lath boards (4 feet long)
- weed (ground) cloth
- coarse thread wood/deck screws
- soil mixture (see description)
- drill

You may be tempted to make a larger garden bed than the 4×4 square. When considering this, please keep in mind that the 4×4' bed was designed specifically so that you can easily reach into the bed without ever having to walk on (compress) the soil within the bed.

Or for beautifully hand-crafted square foot gardening kits, look here: www.squarefootgardening.com
Assembly:

Fasten the corners using 3 wood (deck) screws at each corner. Rotate or alternate corners to end up with a square inside.

Note: Excellent photographs & diagrams showing the easy assembly instructions are included in Bartholomew's latest book:

Roll out the weed cloth so that it completely covers the area that you wish for your square foot garden. (I prefer to overlap the weed cloth, so that the weeds don't push their way up through a gap in the fabric.)

Place the frame over the weed cloth.

Note: It's best to allow at least 3 feet or more between the square foot garden bed and any other obstacles (including other square foot garden beds). This will give you ample room to mow between, and also enough room to comfortably work in the garden bed without feeling crowded.

Soil

Use this soil mixture for the best results:

- 1/3 coarse vermiculite (16 cubic feet)
- 1/3 peat moss (16 cubic feet)
- 1/3 compost * (total of 16 cubic feet)

* It's best to use compost you've made, but if that's not an option, be sure to use a mixture of at least 5 different types of (store-bought) compost. This will give you the best mixture of nutrients.

You can use a tarp, laid out on the ground as your mixing bowl, to mix the soils. Then fill the garden frame to the top. (6" of soil is all you need for all gardening, except for root crops like potatoes and carrots. You'll want a deeper garden bed for those.)

Once the bed has been filled with the soil mixture, water the bed. Once it settles, add more soil mixture, filling it to the top. Repeat this process a total of 3 times.

Apply the grid:

The grid is a very important part of this gardening procedure. Please be sure to include it. You may find other materials that work well for the grid also.

For the grid: measure and mark at 1 foot, 2 feet, 3 feet on each board of the frame. Attach a lath board so that it rests at the 1 foot mark on one side and also at the same point on the opposite side of the frame. Attach with screws. Repeat, so that the lath boards are 1 foot apart. Then, repeat the entire process on the adjoining side. The end result should be a grid that provides you with 16 1'x1' squares.

Planting your Square Foot Garden Raised Bed: (back to top)

In advance, you know that you will have a total of 16 x 1 foot by 1 foot squares to plant, so be sure to plan ahead.

- For starters, you'll want to place tall plants on the north side of your square foot garden bed (so they don't shade the other plants in your garden).
- Consider companion planting (click here for info on companion planting). This is a natural process of placing plants that thrive together, near each other. Also, of considering a strategy to avoid placing plants near each other that tend to stunt each other's growth.
- Timing. Some plants grow well as early or late season crops. Some need the heat of summer. Some grow in a short time frame, some take the entire growing season. If you plan your garden right, you can get several crops out of each space before the growing season is over!

For very large plants (like cabbage, peppers and broccoli), you'll want to place one plant per square (place it in the center of the square).

Large plants (like leaf lettuce, swiss chard, marigolds) can be placed 6" apart, at 4 plants per 1' square. (You would simply draw a cross in the dirt in your 1 foot square, dividing it into 4 sections. Then plant each item in the center of the smaller squares)

Medium plants (like spinach and beets) can go 4" apart, so 9 plants per square.

Small plants (like carrots, radishes, onions) can go 3" apart, so 12 plants per square.
So, except for the largest plants, you will have a grid within each square of the larger grid.

Note: If this sounds confusing, please check out the description, diagram, and instructions included in the book... it will all make perfect sense!

Planting Seeds in your Square Foot Garden:

Poke a hole in the dirt with your finger, and sprinkle a few seeds in the hole. Cover with dirt, but leave a slight saucer like indentation over the area where the seeds are. (This will allow more water to get to your seeds, and to the plant's roots once it's grown – rather than the water just running off!)

Once the seeds immerge, take a scissors and cut the weaker looking sprouts, leaving only 1 sprout per planted area. (Pulling the sprouts out can damage the survivor's roots, causing a weaker plant more susceptible to plant diseases and pests.)

Planting Seedlings in your Square Foot Garden:

Some plants will produce sooner and better if you start them indoors and transplant the seedlings into your outdoor square foot garden. (Tomatoes, peppers, etc.) Be sure to harden-off the plants before moving them to the outdoor garden.

Hardening-off simply means getting them used to the out of doors. Placing them immediately outside will cause the plants too much shock, and the sunlight will likely burn them. Start by placing them in the shade. Then day by day, move them a little more into the sunlight.

Watering:

It's best to water from beneath the plant, rather than from the top down. (Top down watering tends to invite plant diseases and funguses.)

Bartholomew prefers to keep a couple of large buckets of water by his square foot garden, that have been warmed naturally by the sun (the warm water helps keep the soil warmer and doesn't shock the roots). He then ladles a cup of water into the saucer-like depression around each plant. It gets readily absorbed and efficiently goes right to the plant's roots.

Don't over water (this also invites plant diseases). Your climate will determine how often you need to water, so you'll want to keep an eye on the plants. You will need to water them a little more frequently than you would the plants in a regular garden. But they take less water at a time, and use it more effectively. You can also consider drip-irrigation hoses.

Adaptations for Unique Situations (back to top)

The book “All New Square foot Gardening” has wonderful illustrations, descriptions and photographs, for suggestions addressing the following:

- table top gardening for gardeners that are physically challenged
- railing and planter gardens
- structure design to add to your square foot garden, so that it can support melons, pumpkins, squash, more easily. (These plants can actually climb successfully – no need for them to sprawl all over your garden!)
- structure design to easily turn your square foot garden into a mini-greenhouse
- suggestions for keeping critters out of your square foot garden

Companion Planting for Your Garden

Becoming Resilient, Gardening
Published on March 2, 2011  2 Comments

Companion Plating

Companion planting is the practice of inter-planting different plant species to reduce pest problems or improve plant growth.

Companion Vegetable Garden

It's said that vegetables are like people, they thrive on companionship. It is believed that vegetables will yield up to twice as much when they are surrounded with companion plants. So in this article we will discuss the top 12 vegetables and their best friends.

If you're getting ready to plant your vegetable garden you may want to try placing the various vegetable crops so you can take advantage of their natural friends. If you have already planted your vegetable garden you may want to make some changes in subsequent plantings later this summer.
The following are a list of the top 12 vegetables and their ideal planting companions.

Beans—They like celery and cucumbers but dislike onions and fennel.

Beets—Bush beans, lettuce, onions, kohlrabi, and most members of the cabbage family are companion plants. Keep the pole beans and mustard away from them.

Cabbage—Celery, dill, onions and potatoes are good companion plants. They dislike strawberries, tomatoes, and pole beans.

Carrots—Leaf lettuce, radish, onions and tomatoes are their friends. Plant dill at the opposite end of the garden.

Corn—Pumpkins, peas, beans, cucumbers and potatoes are nice companion plants. Keep the tomatoes away from them.

Cucumbers—They like corn, peas, radishes, beans and sunflowers. Cucumbers dislike aromatic herbs and potatoes so keep them away.

Lettuce—It grows especially well with onions. Strawberries carrots, radishes and cucumbers also are friends and good companion plants.

Onions—Plant them near lettuce, beets, strawberries and tomatoes but keep them away from peas and beans.

Peas—Carrots, cucumbers, corn, turnips and radishes plus beans, potatoes and aromatic herbs are their friends. Keep the peas away from onions, garlic, leek, and shallots.

Radishes—This is one vegetable that has a lot of friends, they are excellent companion plants with beets, carrots, spinach and parsnips. Radishes grow well with cucumbers and beans. It’s said that summer planting near leaf lettuce makes the radishes more tender. Avoid planting radishes near cabbage, cauliflower, brussels sprouts, broccoli, kohlrabi or turnips.

Squash—Icicle radishes, cucumbers and corn are among their friends.

Tomatoes—Carrots, onions and parsley are good companion plants. Keep the cabbage and cauliflower away from them.

Sometimes plant friendships are one-sided. Carrots are said to help beans, but beans don't reciprocate. Though beans will help nearby cucumbers.

Other plants have bad companions and you'll be doing them a favor to keep them apart. Beans and onions are natural enemies so keep them at opposite sides of the garden.

If you have a patio you might try mint to repel ants, and basil to keep the flies and mosquitoes away. Both herbs have pretty flowers and are fragrant too. Besides, they're nice to harvest and use in the kitchen. In her book, “Carrots Love Tomatoes” Louise Riotte, says getting to know good and bad companions can double the bounty of your garden. The only required work is to plan your garden planting properly.

“Carrots Love Tomatoes”, Garden Way is an informative, well-illustrated guide to the subject of companion planting. The book recently reprinted was originally published under the title “Secrets of Companion Planting for Successful Gardening”.

If you would like more information on the various plants to use for companion planting and natural insect and disease control, you'll find “Carrots Love Tomatoes” is available in bookstores that carry the Garden Way books.

Plants Helped by Broccoli:

- Celery, potatoes, and onions improve the flavor of broccoli when planted nearby.
- Aromatic herbs, such as rosemary, sage, dill, and mint, help broccoli by repelling insect pests.
- Plants that require little calcium, such as beets, nasturtiums, and marigolds are good companions because they grow happily with broccoli—a notorious calcium-hog.

Plants to Avoid Planting Near Broccoli:

Tomatoes, pole beans, and strawberries are all said to negatively affect the growth and flavor of broccoli.
Companion Plants for Spinach

Spinach tastes best when the leaves are young. It is a good idea to plant a row of spinach every two to three weeks, starting in early spring, until early summer. You can resume this schedule of planting again in early fall. Spinach grows well with beans, cabbage, celery, onions and peas. It is not happy when growing near potatoes. During the summer, you can grow cucumbers, summer squash, tomatoes, peppers, eggplants, and other warm-season crops.

Companion Plants for Strawberries – By Michelle Brunet, eHow Contributor

Plant strawberries with vegetables to make use of space and enrich the soil.

If you only have a small area to work with, companion planting will allow you to squeeze more types of plants into your vegetable and fruit garden. Plant your strawberry plants at least 15 inches apart and the rows 3 to 4 feet apart, but make the most of the empty space between plants and rows with companion vegetables and herbs. Vegetables planted with strawberries will mask the foliage and the fruit’s aroma, protecting the strawberries from potential pests. Companion plants also will add essential nutrients to the soil.

Borage

Borage is an herb that has a slight cucumber taste. It can be added as a green to salads or as flavor to soups and other dishes. It is also the “O blood type” of the companion planting world, compatible with almost any crop, including strawberries. Borage will improve soil richness by adding trace minerals, such as calcium and potassium, to your garden medium. It also attracts beneficial insects like pollinators and predatory wasps that will keep pests away. Borage will provide visual appeal to your garden as it flowers with blue, star-shaped blossoms.

Sage

Sage is another herb that may be planted with strawberries. It will attract bees, which are important pollinators, to your garden. It will also provide a pleasing aroma and visual appeal with its oblong-shaped leaves and blue, pink or white flowers. You can harvest sage leaves and use them to flavor poultry, meat and vegetable dishes.

Vertical Plants

You can plant vertical plants that climb up trellises and poles, such as certain varieties of peas and beans, alongside strawberry plants. Strawberries grow along horizontal runners, thus pea and bean climbers can take advantage of open vertical space in your garden. Peas and beans also add nitrogen to the soil.

Onions

Onions are also compatible with strawberry plants. They keep away the insect pests that tend to destroy strawberries, including aphids, weevils, spiders and nematodes. If you choose to plant onions with your strawberries, unfortunately beans and peas will not prosper. You can harvest both the greens and roots of onion plants.

Greens

Lettuce and spinach work well with strawberries in a companion garden. Oregon Live.com recommends establishing strawberry plants first and then filling the empty spaces with lettuce, spinach and onions. You can create a zigzag pattern with your strawberry plants amongst greens; create rows of interspersed greens and onions separated by rows of strawberries, or create a row of greens, a row of strawberries in the middle, followed by a row of onions.

Marigolds

Marigolds provide a fiery presence to the produce garden.

For a flower companion for strawberries, consider planting marigolds. They deter nematodes but also provide a visual splendor of orange, yellow or red blossoms. Marigolds also have a distinctive aroma that is pleasing to any gardener.

Perfect companions for tomatoes
Carrots:
Carrots work well with tomatoes because they share space well. The carrots can be planted when the tomatoes are still quite small, and can be happily growing and ready to harvest by the time the tomato plants start to take over the space.

Chives, Onions, and Garlic:
Members of the onion family are beneficial to plant with many types of crops due to the pungent odor they emit. This helps deter many insect pests.

Borage:
Borage helps deter tomato hornworm.

Asparagus:
Asparagus and tomatoes are good neighbors. Asparagus puts on growth very early in the season, and the tomato plants fill in after asparagus has been harvested. Also, tomatoes help repel asparagus beetle.

Marigold:
Marigolds help deter harmful nematodes from attacking tomatoes. The pungent odor can also help confuse other insect pests. To deter nematodes, the best practice is to grow the marigolds, then chop and till them into the soil at the end of the season.

Nasturtium:
Nasturtiums help deter whitefly and aphids.

Basil:
Growing tomatoes and basil together increases the vigor and flavor of both crops.

Spinach, Lettuce, Arugula:
These are also “good neighbor” crops for tomatoes. They stay fairly small, and will grow better in the heat of summer when shaded by the growing tomato plants.

What Not to Plant with Tomatoes:
The following crops should not be planted with tomatoes:

• **Brassicas:** Tomatoes and all members of the brassicas family repel each other and will exhibit poor growth when planted together.

• **Corn:** Tomato fruit worm and corn ear worm are nearly identical, and planting these two crops together increases the possibility that you will attract one (or both) of these pests.

• **Fennel:** Fennel inhibits the growth of tomatoes.

• **Kohlrabi:** Kohlrabi inhibits the growth of tomatoes.

**Potatoes:** Planting tomatoes and potatoes together makes potatoes more susceptible to potato blight.

Companion Plants for Blueberries

Although widely planted as a food crop, blueberries (Vaccinium corymbosum) also have aesthetic value as a landscape plant. Their shiny, deep green leaves and dark berries contribute to the summer landscape and their leaves turn an intense shade of scarlet in autumn. During winter, their delicate, upright branches break the monotony of a drab winter landscape. Use them in mixed shrub borders planted alongside other acid-loving shrubs for an unusual mixture of evergreens, spring-flowering shrubs, and summer berries.

Rhododendrons

Well known to thrive in acidic soil, rhododendrons (Rhododendrons spp.) are one of the first plants to bloom in spring. Their delicate blooms are often followed by fragrant blossoms.
Well known to thrive in acidic soil, rhododendrons (Rhododendrons spp.) are one of the first plants to bloom in spring. Their delicate blossoms cover the shrubs before their leaves open. Rhododendrons are best interplanted with blueberries used primarily for ornamental value in the landscape, where their flowers will be protected from the late afternoon sun, which can cause them to wilt prematurely.

**Heaths & Heathers**

Growing wild in the acidic soil of marshes, heath and the related but often-confused-for-it heather are low-growing evergreens. In Britain, the plant commonly called “heath” (Erica carnea) is actually “heather” (Calluna vulgaris). Heaths and heathers make ideal border plants for a landscape bed that includes blueberries. They bloom in late autumn and winter when the garden is barren. Heaths and heathers thrive in the acidic, well-drained soil needed to grow blueberries.

**Mountain Laurel**

Growing 7 to 14 feet high, mountain laurel (Kalmia latifolia) is an evergreen shrub often found growing alongside rhododendrons. Planted among blueberries, it will add winter interest to the landscape with its reddish bark and gnarled, twisted branches. Mountain laurel grows best in a cool location with a deep mulch to keep its roots cool. Its white or reddish flowers bloom in spring. Its round, brown fruits, which break apart into five valves as it dries, are popular in crafts and dried flower arrangements.

**Deerbrush**

A native alpine shrub, deerbrush (Ceanothus velutinus) grows 3 to 9 feet high, depending on growing conditions. Its showy white flowers bloom from May through July. The entire plant exudes a strong balsam-like or cinnamon-like scent. Deerbrush must be grown in full sun in well-drained soil that is neutral to slightly acidic, and will tolerate well the acidic soil levels needed to grow blueberries. The leaves of deerbrush contain saponin and were used by Native Americans to make soaps and cleaners.
On March 11, 2011, a magnitude-9 earthquake shook northeastern Japan, unleashing a savage tsunami. The effects of the great earthquake were felt around the world, from Norway's fjords to Antarctica's ice sheet. Tsunami debris has continued to wash up on North American beaches years later. This map shows the travel times of the tsunami generated by the Honshu earthquake on March 11, 2011. (Image credit: NOAA/NWS). Earthquake a surprise. Articles from March, 2011. Word RoutesExploring the pathways of our lexicon. Gain's "Gooder" Galls Grammar Grouches. By Ben ZimmerMarch 31, 2011. A television commercial for the laundry detergent Gain is getting under the skin of the grammatically minded. The commercial shows a man getting dressed and smelling his newly laundered shirt, as the announcer says, "Bill's mornings have never been gooder thanks to something amazing we've added to Gain." Live from Brooklyn, puzzlemaster Brendan Emmett Quigley is providing exclusive commentary from the
something amazing we've added to Gain. Live from Brooklyn, puzzlemaster Brendan Emmett Quigley is providing exclusive commentary from the 2011 American Crossword Puzzle Tournament. Brendan's got the scoop on all the action at the end of the first day of competition. Continue reading.