

Homes, Gardens, Real Estate - Friday, May 13, 2011

Home and Garden: Soil's well that ends well!

Send those naughty organophosphates packing with dirt microbes!

 Send this story

 Print this story

 Adjust text size

by Annie Spiegelman, Dirt Diva

Last month researchers at UC Berkeley, Columbia University and Mount Sinai Hospital in New York published three different studies finding that a child's IQ tends to decrease in proportion to the mother's exposure while pregnant to common pesticides called "organophosphates."

Organophosphates kill pests by attacking the nervous system and are, unfortunately, used widely in agriculture and home gardening. These pesticides have previously been linked to developmental delays and attention problems in young children who were exposed in the womb. That's the bad news. The good news is you don't need no *stinkin' neurotoxicatin'* pesticides in your yard or on your food!



You simply need healthy soil that WORKS for YOU instead of you working so hard for your petunias and cherished tomato plants. What's the magic ingredient? Microbes! Soil microbes. There are billions of them partying in every spoonful of healthy soil. These invisible rock stars eat and excrete plant food, and multiply. That's their job. And they're happy doing it. They are *your people*. They're busy keeping your plants healthy so you don't need to spray dangerous chemicals on your turf. You can get the microbe party started either in a liquid compost tea form or in a crumbly soil-like composition.

I visited American Soil and Stone, in San Rafael, and talked with the manager, Doc, to ask him what Marinites can do to boost their soil's microbial life. (If you're from Detroit, you have to meet Doc. Ask him about his career as a filmmaker in the '70s working on motorcycle movies in Michigan...) "We recommend that homeowners do a soil test," says James "Doc" King. "They can do a small one themselves or send out a baggie full of soil to a lab." He recommends visiting www.soilandplantlaboratory.com. "This test will tell the soil's pH, minerals and essential plant nutrients. The tricky part is what to do with the information when you get it! We can help with that."

A good way to measure the mineral makeup of your soil is to pick up a handful of your dirt and roll it until it forms a ribbon. "If it feels gritty and breaks apart, it's predominantly sand. If it's smooth and holds its shape for a short time, it's mostly silt," says Doc. "If it keeps its shape and feels sticky you most likely have clay." Now, put the clump of soil back in the ground and listen up. "If your soil has a lot of clay, as most Marin soils do, you should try American Soils Clodbreaker or Multipurpose. Both of these contain little pieces of red lava which improve drainage," says Doc. "If you have sandy loam, you may want to try WonderGrow or Marin's Own, both certified organic by OMRI and full of microbial life, which can improve the nutrient holding capacity of sandy soil."

And with Father's Day just around the corner, Doc and I highly recommend a bag of Double Doody, the new earthy cow/horse blended compost, mixed and aged to perfection nearby in Point Reyes Station. It's great for flowers, vegetables or turf and is sold at American Soil and Stone. C'mon. This Father's Day, give your dad a bag of crap. It's a gift he will always cherish...

I like to add a 2-3 inch layer of one of these composts to my garden twice a year along with a top layer of mulch (wood chips) once a year to shade out weed seeds and to help retain moisture in the summer heat. You don't have to *like* everything I do but you should definitely *do* everything I do, and we'll all go home winners!

After your swell time shopping at American Soil and Stone, follow the exit signs carefully. I went the wrong way and a crew had to wave me through what seemed like a tunnel of boulders. As I drove out, apologizing profusely, I'm pretty certain I heard Doc utter to the owner, "She's from New York City. They can't drive ... but I swear, she's really a good writer! No, really. I mean it."

Next, I stopped by Marin Soil Solutions, a new compost tea business in San Rafael. The owners, Tom Bowen and Bill Falk, two Marin businessmen, have been friends since college. For over 30 years they have shared a love for gardening, oftentimes trying to outdo the other in their weekend garden projects. (Gardeners competitive and covetous? No way.) Like most home gardeners, the two had been brainwashed by chemical companies marketing the overuse of chemical fertilizers and insecticides. After trying various growing techniques, they researched going organic and were thoroughly convinced after reading the book *Teaming with Microbes* by Jeff Lowenfels. Thank God

for that, because even here in the Bay Area where we're all a bunch of plastic-bag-hating tree-huggers, every single one of our creeks is contaminated with high levels of pesticides, especially diazinon, an "organophosphate" that was banned for home use almost 10 years ago because of its toxicity to mammals. "It's all about feeding the soil, not the plants. We thought there's probably a market for this stuff locally. We started making our homemade worm compost tea in five-gallon buckets and a water filter for fish tanks from Petco! We then found a great tea brewer so we could create it in larger quantities and safely," says Bowen.

Falk and Bowen brew the tea using castings from worms raised at Marin's legendary Straus Family Organic Dairy. Within 24 hours they have a tea teeming with billions of live beneficial organisms. The liquid can be applied as a root soak, soil drench or foliar spray on lawns, flower and vegetable beds. "Homeowners can use a Hudson sprayer to spray the leaves," recommends Bowen. "We also come out with our truck and apply large quantities to lawns or mixed landscapes to both residential properties or businesses."

Why compost tea?

1. The microbes in the tea take up space and stick to the leaves of plants, directly assisting the plant and shielding it from pathogens.
2. Sometimes adding a layer of compost isn't convenient or there's a huge area or a hillside. For example, lawns do well with a compost tea application instead of using risky fertilizers and pesticide applications.
3. Compost tea is more concentrated than most composts and suspends the microbes in a liquid form that makes them quickly available to plants. This can quickly boost the plant's immune system and suppress foliar disease.

Many organic farmers spray compost tea on their fruit trees in February before leaves form or in late summer when the trees are looking stressed from the heat. "Billions of organisms are multiplying and exuding nutritional waste so your plants are getting a quick fix. Compost tea has been around for thousands of years but it's only recently that science has caught up," says Falk. "Our goal was to create the most effective, and also, maybe more importantly, the safest product out there. We've gone to three different testing sites to test our compost." The owners recommend applying the tea to plants immediately after purchasing rather than letting it sit in your car or garage for days. "We really want to educate home gardeners and schools about soil ecology," says Falk. "If you've been composting and mulching your soil, you might not need us, but if your soil is neglected and stressed, our aerated compost tea will really help."

PLAYING WITH DIRT

Marin Soil Solutions

3095 Kerner Blvd. Suite B, San Rafael; 415/456-3300 www.marinsoilsolutions.com

American Soil and Stone

565A Jacoby, right across from the recycling center in San Rafael; 415/456-1381 www.americansoilandstone.com

MARIN HOME & GARDEN EXPO

Don't miss the debut of the Marin Home & Garden Expo, Saturday, June 4, 10am-6pm and Sunday, June 5, 10 am-5pm, at the Marin Civic Center Fairgrounds and Exhibit Hall. The Expo, now under the auspices of the Marin Builders Association, is a new version of the long-running Marin Home Show that started 35 years ago. The Marin Home & Garden Expo will feature the latest trends and still-fashionable traditions in the home-and-garden industry. Visitors may enjoy a Gourmet Foods Market Place on Saturday and a Home Arts and Crafts Market Place on Sunday. A display of TransPortals, geometric interactive environments, designed and constructed by Harlan Emil Gruber, will be on the fairgrounds. Attendees will have the opportunity to experience an extensive series of lectures and demos on two stages. Highlights will include the Carey Brothers from the nationally syndicated radio show *On the House* presenting lectures on both kitchen and bath remodeling. There will be presentations from the Marin Bee Society; the *Pacific Sun's* own Dirt Diva, Annie Spiegelman, talking compost; Mill Valley Chickens will offer tips on raising chickens in your suburban yard; Open Garden Project will talk about organic micro gardens; Solar Craft will help folks go solar; plus tips on water harvesting, green interior design, home garden feng shui and more. There will

be a specially designed Kids Zone with fun and educational activities for kids 1-12. Play-Well TEKnologies will host the Build It play station where the older children will have hands-on fun using Legos to learn architecture and engineering concepts. A children's stage will showcase kids' entertainment including the fabulous Let's Go Green Kids and Zun Zun musical groups.

Civic Center Fairgrounds, 10 Avenue of the Flags, San Rafael. Tickets: \$10 general; seniors \$6; free for kids 12 and under. Call 415/507-1537.