
Organic Land Care *with*

February, 2005

"The realities of nature surpass our most ambitious dreams."

François-Auguste-René Rodin
(1840 - 1917)



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Organic Land Care with

SOUL is published 4 times per year by *the Society for Organic Urban Land Care*
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SOUL embraces expanding membership

Who would have thought three years ago that one day SOUL would become a public society, with branches, garden clubs and professional development groups across the country? Then again, that's what happens when you're on to a good thing.

That original motley crew of passionate organic landscapers had a clear vision: to support landscape professionals in their transition to organic practice. Within two years they had built the foundation for an organic landscape industry: an organic land care standard, certification for landscape professionals, and comprehensive education in organic ornamental horticulture.

And then, pleased with their accomplishments, they realized this was only the beginning! Landscapers across the country were looking to start SOUL branches in their communities, home gardeners wanted organic garden clubs, and there we are!

On January 23 the SOUL membership unanimously voted to open the society to all gardeners and members of the public who support the practice of organic land care. They also changed the name of the society to "Society for Organic Urban Land Care".

It will be a few weeks before our website reflects the changes, so here just the highlights:

- Professionals and members of the public alike may join SOUL as individuals for \$30.00 / year
- Corporations may join SOUL as supporting members for \$250.00 / year

The benefits? Support, education, fun, and the satisfaction of being part of a movement to promote healthy organic gardening practices! Watch for exciting educational and fun events in the near future. Questions? Please e-mail us at info@organiclandcare.org.





Soil Testing (Part II)

Useful Soil Tests for Organic Gardeners

By Heide Hermary

Heide Hermary is president of Gaia College Inc. She can be reached at heide.hermary@gaiacollege.ca

We can spend lots of money to find out all kinds of things about our soil - but how useful is that information in helping us make **organic** gardening decisions? After all our garden is not a lab but a complex ecosystem which thrives on the interaction of a great diversity of organisms.

The obvious starting point is to check the **3Ms: mulch, microbes and moisture.**

Mulch

There are two things you need to know, and neither requires expensive tests. Just loosen the soil surface and look.

How nutritious is the mulch – not just for the plants, but also for the microbes that need to break it down for the plants? Bark mulch may cover the soil, but it really doesn't have much food value. In fact, it contains many natural toxins that inhibit microbial action – the exact opposite of what we are trying to achieve.

Mother Nature mulches very simply and efficiently: all plant waste is recycled in place. In our ornamental gardens we may use compost and leaf mulch instead. The important thing is to create habitat and

food for the thousands of critters, large and small, that slowly reduce the mulch to smaller and smaller compounds that eventually become plant food.

How much mulch do you have? The denser your plants, the more food they require. My rule of thumb is to maintain at least 2" of mulch at all times. No amount of fertilizer can substitute for mulch!

Microbes

Finding out whether your soil life has the appropriate diversity can be a little more challenging. Microbes and bugs are everywhere, but not necessarily in the right proportions to support plant health. In fact, plant diseases are just disproportionate populations of microbes that happen to eat living plants.

It is certainly possible, but very expensive, to test the numbers and diversity of soil organisms. The question is: how important is it to know those details? Can we skip the testing and just proceed directly to the remediation?

Sure we can. All gardens will benefit from these practices, and that's all the lab would recommend anyway:

Mulch with high quality compost. After all, compost is a breeding ground for microbes. Do **not** use sterilized compost – that would totally defeat the point!

Apply aerated compost tea. The compost tea brewing process extracts and multiplies the microbes present in the compost – quick and effective soil remediation. Hire an organic landscaper or make your own.

Apply EM – Effective Microorganisms. This is a commercially available mix of fermenting microbes, whose activity stimulates and supports other soil ecosystem processes. It can't get any simpler, or cheaper! On Vancouver Island call David Greig at (250) 598-8220.

Moisture

Without sufficient **moisture** to support microbial activity our plants will **starve**, it's as simple as that. If your mulch is dry, or the soil is dry below the mulch then you're not watering enough. By all means irrigate effectively, but don't deprive your soil life of water!

Next: The limited usefulness of conventional soil tests



Compost Tea For Ecological Diversity

By Alison Kutz-Troutman

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The past few years have enjoyed a flurry of new work with an old gardening friend: Compost. While the lofty goal of every avid gardener would be to have perfect soil at the feet of their beloved plants, there is often a gap between vision and reality. That being said, it is no wonder that the use of compost tea as a soil building tool has become so widespread. The many challenges and time it takes to build really great organic matter in the soil stands in the way of many folks having the “dream” garden.

In case you have not heard, Compost has a sophisticated “big sister”! These *Compost teas*, which have been brewed and manipulated with high quality, tested composts, appropriate food sources and gentle aeration, are timed and heated according to the goals of the “brewmeister”. Perhaps it sounds as if these crazy folks brewing tea are up to something cosmic and quite mysterious. Perhaps we are! But researchers, growers and professional horticulturalists all over the globe are collectively gaining experience and understanding of the powers of what we are essentially working with: soil

microbiology and soluble natural micronutrients. Much of the scientific data is in the process of multiple year replications, and lots of it is in the hands of private companies and the labs that look at these microbes, as growers invest their private dollars to develop their own best “brews” for their crops and problems that they are facing.

From homeowners, using the tea to combat mildew and black spot on their roses (foliar applications), to large growers breaking down crop residues with these voracious microbes-a-la-carte, the aerated teas, or fermented extracts, are quickly becoming used by conventional and organic growers alike. They can be purchased fresh from some of the best nurseries, (always make sure it is extremely fresh) and there are services that can deliver and spray your lawn. Washington State has become a real hub of this activity, and this groundswell movement of organic gardening has happily embraced this new tool. In recognizing this vast and complex microbial world, and honoring the great potential of microbial intelligence and genetic diversity is a timely endeavor. It is truly the time to practice Ecological Medicine.

FAQs

*Courtesy of the International
Compost Tea Council
<http://www.intlctc.org>*

WHAT IS COMPOST TEA?
Compost tea is an aerobically brewed liquid extract made from compost. Compost tea contains beneficial microbes and nutrients essential for plant and soil health.

WHEN DO I USE IT?
Compost tea is best when applied immediately after brewing. Use it during mild weather when the soil temperature is above 40°F (5°C). Repetition is beneficial.

CAN IT HURT MY CHILDREN OR PETS?
Brewing tea with approved ingredients and equipment is not harmful to adults, children, pets or wildlife. Remember, this is not a chemical application. It is not, however, meant for human consumption.

WHAT OTHER PRACTICES SHOULD I DO WITH COMPOST TEA?
Compost tea is not a “silver bullet” for the problems in your yard. Other practices, such as organic fertilizing, soil amending, mulching, aeration, etc., are also important to build and sustain a healthy garden. The soil, environmental and prior chemical conditions of your yard all play a role in its overall health.



WORMS in your BED

(For kids only - well okay, for big kids too)

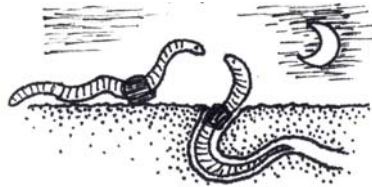
Yuch, worms. They're gross! - Maybe not.

I want to introduce you to a kind of worm called a *Red Wiggler*. They are called Red Wigglers because they are red, and they wiggle if you put them in your hand. The Red Wigglers are sensitive to light and touch. Their official science name is *Eisenia foetida*.



Worms are interesting animals. They have no eyes, no teeth, no ears, and no legs. But they do have five hearts, a couple of stomachs, a type of brain, and they move around pretty fast for a little animal. Worms are at home in *organic* material where they make little underground tunnels called *burrows*. These burrows are like you going under your comfy blankets in your bed. A nice safe place to be.

Red Wigglers do not like light. They like to live underground where it is dark. If they feel any light on them they move really fast down into their burrows. That is why you do not see any worms during the day. They like to stay in their homes during the day and then come out at night, especially if it is cool and moist. This might sound like your older brother or sister. They like to sleep in and stay up late.



Red Wigglers live in piles of leaves and garden waste, in piles of manure, or in *compost piles*, anywhere there is a lot of food for them. You can also have them in your home. But please tell your parents what you are going to do before you bring them in your house. Your mom and dad may not like them crawling along the kitchen floor if they escape from their *bin*. A bin is a place you create where worms can live.

Did you know that "*worms eat your garbage*"? They eat all the time. They eat pretty much everything that you do, but worms do not have teeth. They do not go to the dentist. But just like you, they need a nice bed to live in, a cool temperature and a lot of food to eat. One worm can eat half of what it weighs in one day. Wow, you would be pretty big if you ate that much food in a day. Because they eat so much, they are really good at getting rid of the food your family does not eat. Getting rid of food waste this way is called *vermi-composting*.



Because worms eat so much, families use Red Wigglers to eat left over food they were going to throw away. People do this by using a box made of plastic or wood and filling it with newspaper that is a little bit moist. The moist newspaper is called the worm *bedding*.



By: David Greig (text) haisty@islandnet.com

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Worms feel *slimy* because their skin is moist. Worms breathe through their skins and not through a nose like you. After you fill your worm bin with moist newspaper, you can put in your *food scraps* and your worms. The *food scraps* are worm food that could be fruit, vegetables, tea bags, pancakes, pizza crust, cereal, coffee grounds, egg shells, or cake.

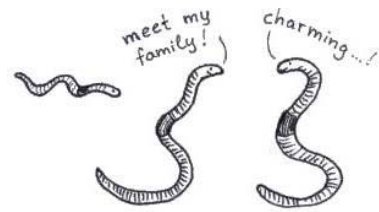


When you add food to your bin, you need to bury it. If you do not bury the food, flies will lay their eggs on it, and you will have a lot of flies. It is much nicer not to have flies around your bin, especially for your parents. You also do not want to put any meat, dairy products, bones or oil in your bin because it can start to smell before the worms eat it. If this stuff begins to smell, it will attract your dog or unwanted pests.

Although your dog is nice, you do not want him or her to help the worms eat these food scraps.

The worms' bin is much smaller than your bed at home. The size of the worm bin should be about 30 cm deep, by 60 cm wide, by 90 cm long (that is one foot by two feet by three feet). The bin should have a lid. You should also put holes in the bin. The holes are so the worms have air to breathe, and for any moisture to escape from the bin, especially from the bottom. Use a tray to catch the moisture from the bottom of the bin.

Remember that worms are living creatures like your dog, cat, gold fish, or hamster. Like all living creatures they need food, water, a place to live, air to breathe and the right temperature. If you take care of your worms, they will take care of your food scraps and you will be helping the environment by recycling food waste. Please keep worms in your bed - I mean, in their bin!



Some Words from the Article

Bin – a place that you build or buy for the worms to live in.

Bedding – what you use to fill your worm bin, so the worms have a nice, cool and moist place to live.

Burrows – the underground tunnels that worms build.

Composting – a way to change organic material into nutrients for plants in the soil.

Compost Pile – a pile of organic material (leaves, garden waste, fruit and vegetable scraps, and the like) that breaks down and adds nutrition to the soil.

Food scraps – the food waste that you do not eat but give to the worms.

Organic – something made from plants.

Red Wiggler – is the common name of this worm, like your first name.

Eisenia foetida – is the scientific or official name of the worm, like your last name.

Slimy – the feel of a worm's skin. It has to stay moist all the time because it breathes through its skin.





Gardening with Native Plants

Fronds in Your Garden

By Laurie Hardy

Laurie Hardy is a Horticulture Instructor and Certified Organic Land Care Professional living in Victoria, B.C. She can be reached at hardyl@camosun.bc.ca

The forests of the Pacific Northwest are marvelous to explore. The lush nature of the under-storey has always been a source of pleasure for me. Of particular delight are the many varieties of native ferns found on our coast which are perfect for the average garden.

Most ferns are low maintenance, durable plants that are reasonably drought tolerant. Here are two species that offer the advantage of an evergreen carpet full of texture and fullness year round.

Providing a wonderful ground cover for our precious soil critters, the **Sword Fern** (*Polystichum munitum*) will flourish in the partial to full

Sword Fern



shaded area of your garden.

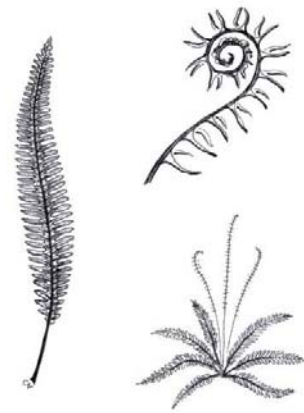
Given moist, loamy soil during its establishment, this beautiful fern will send out deep, fibrous roots from those short creeping rhizomes and quickly become quite drought tolerant. A plus for any garden.

Polystichum's arching fronds can reach four feet long with attractive fiddleheads appearing in early spring. As these fronds mature, clusters of brown spore cases (sori) can be seen on their undersides in fine protective membranes preparing to reproduce come July and August.

These magnificent ferns can be complemented by their smaller friends the **Deer Ferns** (*Blechnum spicant*). Although a different genus, they resemble the sword fern, but this beauty has rounded fronds as opposed to sword's lance-shaped ones. The Deer fern is pleasing in the shade garden, liking similar growing conditions. Where the Deer fern really differs is in its reproductive growth.

Two different types of fronds emerge in the spring from the

Deer Fern



fern's center. The tallest of the two types becomes the fertile one which turns brown in late autumn leaving a cluster of other sterile fronds as evergreen. Because this fern likes a rich acidic soil (pH 5.0-6.5) more than the sword fern, it can do very well under our cedars, provided they receive enough moisture.

Both Sword and Deer ferns combined with Salal (*Gaultheria shallon*), Oregon-grape (*Mahonia nervosa*), False-Lily-of-the-Valley (*Maianthemum dilatatum*) and other woodland plants can bring the Pacific Northwest forest to you.



Seeding Life

Text by Jessica Dawe, photos by Maria Keating – The Bug Ladies

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Maria can be reached at mariakeating@telus.net



Impatiently awaiting the arrival of seeds ordered weeks before, you can most often find the keen gardener hovering at the mail box, ready to plant with tools in hand.

Of course we do the best for our “babies”, preparing a clean and warm, well watered environment. Most often the “propagation lab” is the spare room and our primary defense against plant predators are the handy little plastic domes. This little barrier, however makes it all too easy for a fungus gnat to slip through.



Fungus gnats are minute sized flies less than 1/16” long that will regularly annoy people during the damper months. They can be found both indoors and out and are active most of the year. Inside the house, their prime breeding ground is the moist dark soil of the seeding crop or potted

plant. Their small larvae will immediately feed on fungus, damp mulch, leaf mold and the root hairs of young plants. Larger plants can withstand this pressure but new seedlings will become stunted, deformed and may not recover. This is not the worst of it the problem: within the tiny jaws can lurk the *Pythium* fungus, also known as “Damping off”. This disease moves quickly, attacking the base of the plant, cutting off the transport of nutrients and causing death within 2-3 days of contact.

The best way to combat this disease is through prevention. This involves eliminating the source of transfer, the fungus gnat. One method all gardeners should employ is the use of sticky traps to catch meandering gnats. The gnats are attracted to the bright yellow cards and immediately stuck, preventing them from laying eggs. This method catches the majority of them but a third barrier should be exercised.

Within the natural environment the native predators would keep the pest population to a manageable level. One such predator



suitable for use in the home environment is *Hypoaspis miles*. *Hypoaspis* is a small predatory mite that dwells in the soil, feeding on various soil organisms, including gnats. One of the oldest biological controls available, *Hypoaspis* has been used by greenhouse growers for decades. The mites are applied as the seedlings emerge and will establish a protective colony. Even if no gnats are present at the time of application the mites will reproduce, feeding on other microbes without harming the plants. The mites are packaged in a soil medium similar to the seeding mix and can be applied using a teaspoon to divvy up the contents into each tray or pot. When the gnats move in to lay their eggs the *Hypoaspis* are ready to devour the prey.

Today, next month and throughout the season these little guys will protect your offspring. So seed a little life in your garden and watch it grow.





Education in Organic Land Care

For Gardeners and Land Care Professionals

The Organic Land Care Lecture Series

Register through

Burnaby Continuing Education (604) 664-8888

Delta Recycling Society / Earthwise Gardens, Delta (604) 946-9828

Malaspina University College, Duncan (250) 746-3519

Malaspina University College, Nanaimo (250) 740-6160

Saanich Recreation, Victoria (250) 475-7121

Detailed course descriptions at the Gaia College web site:

http://www.gaiacollege.ca/Gaia_College/programs/workshops/index.php

January 8	9:00 a.m. – 4:00 p.m.	Burnaby	Organic Turf Management
January 10	9:00 a.m. – 4:00 p.m.	Victoria	Organic Turf Management
January 29	9:00 a.m. – 4:00 p.m.	Burnaby	Organic Woody and Herbaceous Plant Maintenance
January 31	9:00 a.m. – 4:00 p.m.	Victoria	Organic Woody and Herbaceous Plant Maintenance
February 13	9:00 a.m. – 4:00 p.m.	Duncan	Organic Turf Management
February 15 & 22	6:30 p.m. – 9:00 p.m.	Duncan	Botany – How Plants Work
February 19	9:00 a.m. – 4:00 p.m.	Burnaby	Landscape Health Management
February 21	9:00 a.m. – 4:00 p.m.	Victoria	Landscape Health Management
Feb 28 & Mar 1	9:00 a.m. – 4:00 p.m.	Delta	Organic Soil Management
March 12	9:00 a.m. – 4:00 p.m.	Burnaby	Ecological Landscape Design and Construction
March 13	9:00 a.m. – 4:00 p.m.	Delta	Organic Turf Management
March 14	9:00 a.m. – 4:00 p.m.	Victoria	Ecological Landscape Design and Construction
March 19	9:00 a.m. – 4:00 p.m.	Nanaimo	Landscape Water Management
April 2 & 9	9:00 a.m. – 4:00 p.m.	Nanaimo	Organic Soil Management

On-line Study Programs

SOUL members receive substantial discounts to the following programs offered by Gaia College.

Self guided study of the on-line text

Certificate in Organic Landscape Management

Certificate in Organic Turf Management

More information at these websites:

<http://www.organiclandcare.org/membership/benefits.htm>

http://organic-land-care.com/Gaia_College/programs/index.php

Subscription Order – Organic Land Care with SOUL

Mail to: Society for Organic Urban Land Care, 3533 Salsbury Way, Victoria, B.C. V8P 3K7

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Please enclose payment!

	New / renewal
1 year	\$12.00
2 years	\$24.00



To find an organic land care professional in your area please visit the SOUL web site at www.organiclandcare.org