## Compost tea perks up plants

By Donna Balzer, Canwest News Service July 8, 2009

Fertilizer comes in hundreds of forms and formats, making it difficult for a gardener to know what will work on his or her own plot -- and how to use it. These are the questions curious minds are weighing as we go into summer maintenance mode in our gardens.

High-nitrogen fertilizers get things growing, but can lead to lush growth and increased aphid populations. Low fertility can lead to paleness and loss of leaves as nitrogen is moved from old leaves to new.

Newer hybrids such as the Proven Winners series of petunias are designed to need constant inputs of traditional fertilizers to keep them blooming. Some gardeners believe that nitrogen levels have to be maintained for all plants at all times, but I know there's too much emphasis on this one element. Taking care of a healthy soil will take care of the fertility all by itself.

Microbes die when exposed to salt. This is one reason organic fertilizers -- such as compost tea -- are so much better in the garden than salt-based fertilizers. Other organic fertilizers come from alfalfa or canola meal, humate, kelp and composted fish. Essentially, they feed the microbes rather than the soil -- but in the end, the soil is better and the microbes more plentiful.

## WHAT ABOUT A SOIL TEST?

"Have your soil tested," keeners suggest. I say soil tests are a waste of money -- soil is burned to find out how much nitrogen, phosphorus, potassium, sulphur and calcium are present. It's more important to find out what's available in soil water.

In an excellent Internet article -- Soil Testing for Organic Gardeners, published by the Society for Organic Urban Land Care -- author Heide Hermary writes: "The three most important elements for healthy soil are NOT nitrogen, phosphorus and potassium! They are:

- lots of mulch/organic matter
- great microbial diversity to break down plant residue
- sufficient moisture to sustain not just the plants, but the microbes as well, without drowning them.

"The garden is not a lab," continues Hermary, "but a complex ecosystem which thrives through the interaction of a great diversity of organisms."

## SUPPORT SYSTEMS FOR GOOD GUYS

In my own basement laboratory, I have an active worm bin. I had the microbes counted in the compost by the specialty soils lab -- Soil Foodweb -- in Vulcan, Alta. to see how I was doing. It is possible, for instance, to accidentally encourage bad anaerobic bacteria such as Escherichia coli (E. coli) in compost or worm bins simply by keeping the system too wet or too low in oxygen.

Compost tea might also cure minor leaf disease problems by replacing bad fungi with good on the leaf surface. I have sprayed my dahlias because they have a white powdery coating on their leaves -- the first sign of the powdery mildew fungus. The "good" fungus in the tea will be attack "bad" fungus in residence on the leaves.

## MAKING COMPOST TEA

I used my potent worm compost this weekend to make compost tea. This is a complex project that takes special equipment and 24 hours to prepare. Recently I saw compost tea, made from worm castings, at a local garden centre after I had made and sprayed my tea.

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