

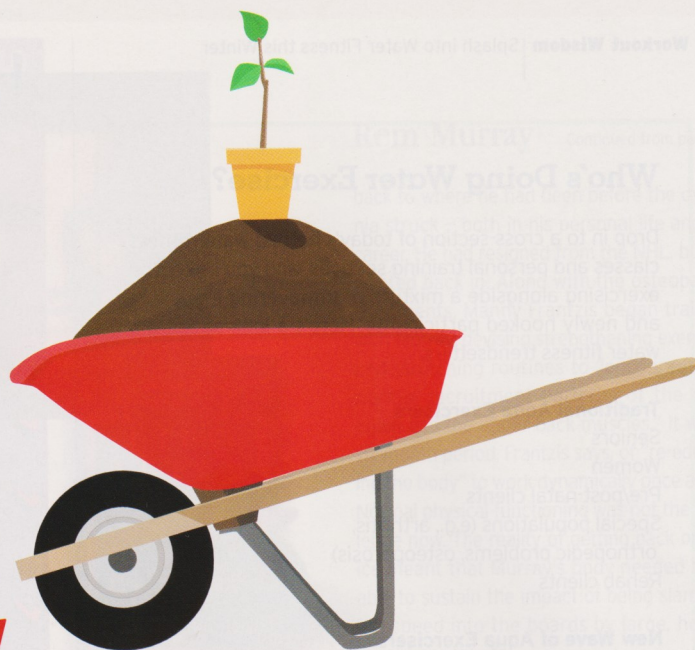
# Nutrition by the *Wheelbarrow*

BY JANET WALLACE

I don't take many nutritional supplements. My mineral supplements take the form of kelp, rock phosphate, limestone and large amounts of well-composted manure. This is because instead of swallowing capsules containing minerals, I put the minerals on the soil in my garden and pastures. While eating the organic vegetables, dry beans, meat, eggs and dairy products made from my land, I'm eating the nutrients I have added.

"Feed the soil" is a mantra used by organic farmers. The idea is that rather than applying synthetic fertilizers to boost plant growth, organic farmers work on improving overall soil quality. A healthy soil leads to healthy plants, which in turn lead to healthy food. This approach works. Many studies have shown that organic food contains more nutrients and minerals than conventionally-grown food.

Seaweed is a great supplement, providing more than 60 nutrients and minerals. I'm fortunate enough to live in Nova Scotia by the Bay of Fundy. After gales, plenty of seaweed is tossed up onshore. I fill up my truck with the seaweed and bring it to my garden. It makes a great ground cover and eventually breaks down, releasing its minerals to the soil. I give more seaweed to the animals on my farm in the form of dry kelp. The sheep



and goats love the kelp. I feed it to them in bowls but often offer them handfuls of kelp as a treat. I'm not alone in this practice. Most organic farmers give kelp to the livestock and the minerals it contains end up in the milk, meat, eggs and manure.

On organic farms, manure is seen as an invaluable resource. Some farmers call it "black gold." But fresh manure, straight from the barn, is never applied to food crops or bare soil. It's only an ingredient for composting, along with straw, wood shavings or leaves. By the time the composting is finished and the compost is ready for the land, it looks and smells like rich black soil. The heating process involved in composting kills the bacteria and viruses that might otherwise cause disease in plants or even (in rare cases) in humans.

The great value of the manure is when the composted manure is applied to gardens or fields. Composted manure is a perfect fertilizer. Not only does it contain the major nutrients nitrogen, phosphorus and potassium – those are the nutrients represented by numbers in fertilizer labels – but it also contains a wide range of trace minerals. And these minerals can then be taken up by the crops and later taken up by your body, when you eat organic food.

On my farm, part of the gardening work is mucking out the barn. One of the

reasons we have livestock is to have a reliable supply of good manure – manure that we know the source of. I know the diet of the animals that provide the manure. When I feed kelp to the goats and sheep, some of the minerals contained in the kelp (whatever the animals don't need) will go into the manure, then into the compost, then the soil and finally back into my food. It's a nice tight circle. Not only do I know what went into the compost, but I also know what didn't go into it. I know that antibiotics weren't used on my animals, neither were growth hormones. The animals weren't fed any industrial byproducts, just healthy food. And in turn, they produce healthy food.

Organic farmers use more than just manure on their soil. Rock dusts are often applied as well. Some of these are also used on conventional farms, such as ground limestone added to make soil less acidic. Other rock dusts are used primarily on organic farms and gardens, such as ground granite. These add trace minerals to the soil in a way that doesn't harm plants or the environment.

Another method used to increase soil fertility but without using fertilizer is the use of green manures, such as clover and ryegrass. These are crops that are never harvested. Instead, the green manures are grown for a while and then ploughed