

FROM FARMING TO GARDENING: Bringing Soil Health to Life

Whether you are a farmer with 500 acres or are gardening in the city, Soil is your greatest resource for success. Its health and vitality are essential for healthier food, cleaner water, richer biodiversity and a calmer climate.

*Whether on the farm or in a garden, caring for your soil comes down to six basic principles. These are known as the **6Cs of Soil Health**.*

The 3rd C: Continuous Living Plants

Plants use the miracle of photosynthesis to turn the sun's radiant energy into chemical energy in the form of sugars (in general, these are known as photosynthate).

But plants don't save all this chemical energy for themselves; they share up to 40 per cent of their photosynthate with the organisms in the soil. They secrete sugars and other substances made from these sugars into the soil through their roots, helping to feed and grow the microbial populations in the regions of soil surrounding the roots.

This symbiotic relationship between the soil microbes and plant roots is the basis for soil fertility and the fundamental formula for healthy soils and plants. It makes sense, then, for farmers and gardeners to foster and support this relationship by keeping living roots in the soil as much as possible.

As a gardener, it is important to remember to:

Keep continuous living plants in your garden.

Here are some suggestions:

- **The best cover is a growing plant.** Of course, that may not always be possible between plantings, or when your plants are very young and don't cover much area, so check out the options below.
- **You can cover bare soil with plant residues, compost, or organic mulches.** These materials will both protect your soil and feed your critters.
- **You can also use inorganic mulches,** such as stones, crushed rock or brick, or plastic weed-block. These materials don't feed your critters, but they do protect them. These options are often better suited for perennial plants, such as shrubs and trees, than for garden veggies or annual flowers.
- **Some veggie gardeners like to use corrugated cardboard.** You can cover the entire bed, cutting holes where you want to plant seedlings or place seeds. The cardboard protects the soil, keeps weeds at bay, and eventually breaks down and feeds your underground workforce.
- **Don't remove your annual plants in the fall.** If you want to make the garden appear less messy and more attractive, you can cut your plants and leave them on the soil, perhaps mixed with leaves or other organic residues. *Leave the roots in the soil, however: they are feeding your underground workforce!*

To learn what some Canadian farmers are doing to improve the health of their soils, check out the many great interviews at the Compost Council of Canada's YouTube channel.

For more information, visit www.compost.org.



Continuous Living Plants ... one of the 6 C's for Healthy Soil

Canadian Farmers: *Bringing Soil Health to Life*

The 6Cs of Soil Health: Tackling Climate Change with Soil

Soil is an important ally in tackling climate change, as well as achieving productivity and profitability. Paying attention to the health of the soil realizes a rich harvest of benefits: climate stability, improved water quality, drought resistance, cost savings, healthier food, and a generally more profitable enterprise. It all comes down to six basic practices: **the 6Cs of Soil Health**.

1. **Control Compaction**
2. **Cultivate Carefully**
3. **Continuous Living Plants**
4. **Cover the Soil Constantly**
5. **Crop and Animal Diversity**
6. **Compost and other Soil Improvers**



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Funding for this project in part has been provided by
Agriculture and Agri-Food Canada through the AgriCommunication Program.

For more info, visit www.compost.org