

Its Not Just the Worms!

We all know that worms are important to the soil. They are known to be important because they improve soil structure, water infiltration rate, water holding capacity, nutrient availability, and more. But worms are not the only ones in the soil that deserve credit for their work helping to manage and improve our soils.

ANTS, the Black Carpenters, Argentines, Pavements, Pharaohs, Odorous Houses, and Thiefs, are all varieties of ants found in Ontario. Ants are beneficial insects to our soils and ecosystems, though they are primarily painted as pests!

To begin, ground dwelling ants build nests in soil comprised of tunnels and chambers; these nests aid in water infiltration as well as soil aeration, and are especially helpful in aiding plant growth as nests can be 12" to 36" in depth (depending on climate and age of the ant colony) a similar depth at which the majority of plant roots are located, providing roots an optimal environment and accessibility water, nutrients, and air.

Ants are also great decomposers as they feed on organic residues, insects and/or other dead animals. They also feed on the elaiosomes of seeds (an oil on seed surface), which they eat in their nest and leave the rest of the seed to germinate and grow into a new plant.

Ants like the Carpenter, make their nests in dead or diseased wood, which means they accelerate the decomposition process, bringing organic matter back to the soil, and adding to fertility. Fungi and bacteria then come in and break down the lignin and cellulose on the decomposing wood surfaces, furthering the decomposition process and adding to the fungi and bacterial population that increase nutrient availability and suppress root diseases in the soil.

As ants improve water infiltration and soil aeration, contribute to the decomposition of plant matter, and aid in improving nutrient availability in soil, they alongside worms and other soil dwelling insects are beneficial pieces of our soil's health. Cheers to the 20,000,000,000,000,000 ants of which we share this earth!