

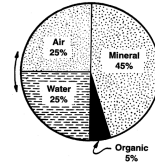


**NEW PRODUCT
SALES REP**

Mike Carignan



**VALUE OF COMPOST
FOR MELTING SNOW
AND ICE**



**BENEFITS OF
COMPOST ON
IMPROVING SOIL
STRUCTURE**



2015 SPRING NEWSLETTER

We all are eager for the snow to disappear and the start of the growing season. This spring you will find some changes at Agresource. We welcome our newest member of the product sales team, Mike Carignan, who will be covering Rhode Island, Massachusetts, New Hampshire and Maine. In this issue of our newsletter we have provided information about the value of compost for melting snow and ice as well as the benefits of composts on improving soil structure.

Check us out on Twitter @Agresource_Inc for daily updates on what we and the industry as a whole are up to. Discover more about Agresource anytime at www.agresourceinc.com. We look forward to working with you for all of your compost and soil needs.

Agresource Inc.
100 Main St.
Amesbury, MA 01913

Product Sales Representative - Mike Carignan



Michael A. Carignan has joined the Agresource team this spring. His involvement in the Green Industry comes from his love of sports. As a competing athlete into his college years he knew he wanted to keep sports as a part of his life after the games were done being played. This took Mike into the career path of turfgrass management and 10 years of on course, hands on, high intensity golf course maintenance.

After graduating with a degree in Sport Management from Colby-Sawyer College, Mike completed a certificate program in Turfgrass Management from UMass Amherst and worked the next eight years at The Country Club in Brookline, MA and Shelter Harbor Golf Club in Charlestown, RI both top 100 ranked US golf courses. Mike shifted his career to sales as a Turfgrass Professional for The Chas C. Hart a Seed Company selling grass seed, fertilizers and various plant protectant products. His interest in turfgrass management prompted him to attend Penn State World Campus and in 2014 he graduated with a Master of Professional Studies degree in Turfgrass Management.

Mike has enjoyed vegetable gardening and growing hops over the past several years and his interest in the larger Green Industry has grown beyond turf management. He will be covering the territory of Rhode Island, Massachusetts, New Hampshire and Maine. You can see Mike at industry gatherings and when he is out on the road servicing his customers. He can be reached at 978-270-9132 or mcarignan@agresourceinc.com for site visits, consultations, sample drop off, etc. Feel free to reach out and get to know our newest product sales representative!

Capture the Sun

Mike Carignan

The winter that keeps on coming is going to make for a quick turn around from white to green as fields, golf courses and lawns push to open for spring. With near record snow falls in most of the North East the idea of getting surfaces clear and usable seems far off, but with spring sports and cabin fever the demand for open areas is high. Many products can melt snow, but few are safe to use on our turf sites. We can take advantage of a natural resource and speed up the melting process by using the sun and solar absorption to safely win the battle of the snow and ice.

A recent study by Dr. Kevin W. Frank of Michigan State University, Andrew Hollman, Dr. Brian Horgan, and Sam Bauer of University of Minnesota looked into the melting of ice specifically from putting greens, an environment with turfgrass plants mowed at .125" or lower and highly susceptible to winter injury. This study tested three types of ice melting products. At the Hancock Turfgrass Research Center (HTRC) at Michigan State University the ice melting study was conducted

using 20 different products. Conditions during the treatment window, which began at approximately 11 am and concluded at 5:30 pm, had temperatures hovering around 25 °F and constant cloud cover.

The 20 product treatments can be broken down into three general categories:

- 1) Standard Chemicals/Salts including Calcium chloride
- 2) 'Safer' ice melt products including Enviro Melt (carbonyl diamide/urea), Safe Paws (modified amide/glycol admixture) and Ammonium sulfate
- 3) Solar Absorption Products including biosolids fertilizers and Milorganite.

The most visible melting was done with solar absorption products. Even though temperatures were below freezing and persistent cloud cover, the solar absorption treatments were effective at melting the ice surface faster than those chemical applications that would be harmful to our turf. Although the study did not include composts, we can expect that due to the dark color, composts will perform in a similar manner as the biosolids fertilizers.

Besides melting the snow, why would I apply a dark compost now? This spring season will be shorter



Photo courtesy of MSU Extension Turf Tips and Clippings

and jam packed with more work than we have time for. By applying solar absorption products now you will also leave behind a nutrient rich, soil amendment already in place. The compost application will provide plants with the early season slow release nutrients they need to break dormancy and start a successful year of growth and vigor.

Let's also remember this amount of snow melt will undoubtedly leave behind soft, wet ground that can and will be disturbed by our management

processes. Once this protective layer of snow and ice has lifted off the ground we will have no barrier between the softened turf surface and our heavy equipment.

Save time and get a jump on spring. Melt the snow and ice, leave behind a nutrient rich soil amendment and keep directly off the soft turf surface by applying a quality solar absorption compost product today!

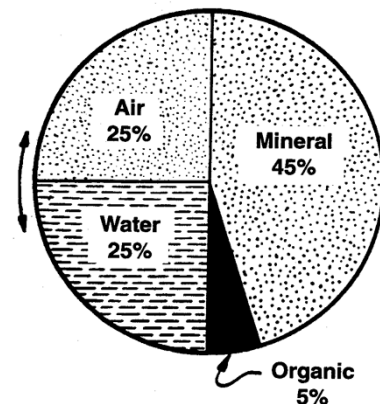
The Role of Composts in Improving Soil Structure

Geoff Kuter, PhD.

Most everyone is familiar with soil texture and the widely used soil texture classification system. Soil texture is simply a measure of the relative percentage of different size particles; sand, silt and clay. For example, a soil classified as a sandy loam soil has a specific range of clay, silt and sand particles.

Soil structure, although not readily measured by soil testing laboratories, should be considered along with soil texture when evaluating soil quality.

Soil structure is the arrangement of the soil particles into aggregates. As soil particles are bound together in various sized aggregates soil pores are created. Although the percentage of fine particles (e.g. fine silt and clay) has a significant influence on the ability of water to move through the soil, the structure of the soil is a key factor that influences not only drainage but the size and arrangement of pores. Thus the soil structure will provide for the movement of both air and water in the soil. As shown in the pie chart, a quality soil will have a combination of pore space filled with air and water.



When the particles of sand, silt and clay are arranged in aggregates of different sizes and shapes, the soil will have pores of various sizes and those pores will open up channels for not only the movement of air and water but also allow for the growth of plant roots.

Aggregates leading to good soil structure are destroyed due to repeated cultivation and can be restored through the addition of organic amendments such as composts. Compost amendments not only introduce porosity by reducing the soil bulk density, but also promote the formation of soil aggregates by stimulating the growth of soil microorganisms. The growth of soil bacteria results in the production of various organic compounds (e.g. extra cellular polysaccharides) which will bind the small soil particles into larger aggregates. In addition, the filamentous growth of fungi stimulated by the addition of composts will physically bind together soil particles into larger aggregates.

A soil with stable aggregates and a range of both large and small pores will have increased pore space, desirable aeration and drainage and will be less subject to erosion. The addition of compost increases the stability of the soil aggregates as the compost degrades over time. Because the aggregation process is facilitated by the growth of soil microbes, highly stabilized organic amendments are not needed to stimulate the formation of a good soil structure.

While it is important to understand the importance of soil texture on soil function, it is equally critical that soil structure be maintained by the proper use of composts.