

# To Test or Not to Test – That is the “Compost” Question!

R.W. SHEARD, P.A.G. CONCLUDES THE COST OF ANALYSIS IS WELL WORTH THE ADDED QUALITY ASSURANCE

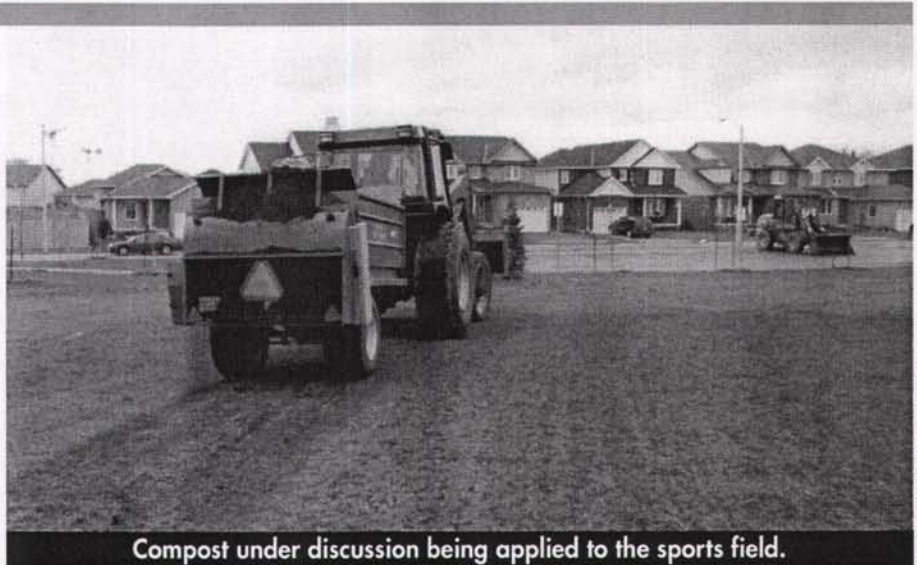
**U**rban waste disposal systems are steadily moving toward the composting of all organic materials rather than placing them in a land fill site. Uses for this material in the landscape industry are increasing as more material becomes available.

In a recent article in the *Sports Turf Manager* (Winter 2003), Pam Charbonneau reviewed the role of compost in sports field management. Research at the Guelph Turfgrass Institute has shown a suppressing effect on pink and grey snow mould, two of the few diseases which affect sports turf. An additional benefit Charbonneau observed was improved spring green-up.

The use of compost has a major problem – inconsistency in quality. Very diverse analysis is common, primarily the result of the wide range of material which is composted and variations in the composting process used.

This article summarizes a recent incident where a parks department was misled by a compost supply company. Several hundred tonnes of the material were purchased to use in their organic-based management program. In the fall of 2003, during the evaluation of some fields for the parks department, we observed a heavy application of the material. Examination of the black “compost” suggested a significant mineral content. Permission was obtained for further examination of the material. Some yellowing was observed of the grass leaves where the material had been applied several days previously.

Initial analysis of the material was done in conjunction with a number of other samples testing for routine fertility and particle size of the mineral fraction. This analysis showed two surprising results. The potassium level was 1,280, four times a normal very high reading. The particle size distribution analysis revealed 74.9% sand, 14.6% silt and 10.7% clay. The very pronounced gritty feel of the material



Compost under discussion being applied to the sports field.

GUELPH TURFGRASS INSTITUTE

prompted a third analysis (a separate laboratory test) for total organic matter. This analysis revealed the “compost” contained only 10.5% organic matter. The material was, in fact, classed as a high organic, fine sandy loam. The sand fraction was made up of 61.3% fine and very fine sandy loam which when combined with the 14.6% silt would make the material a very inferior top dressing material, contributing to, rather than alleviating any compaction or infiltration problems.

The source of the high potassium is not known. Any relationship between the observed yellowing and the potassium test is pure conjecture. It was a red flag, however, that something was wrong with this “compost.” The material used to impart the black colour and raise the organic level to 10.5% may contain other contaminants, not included in the analysis, which were causing the yellowing of the grass leaves.

Due to the lack of any regulations stipulating what is compost and the high variability in materials, it is strongly suggested that some certificate of analysis be provided by the supplier before a contract to purchase is made. The basic information should state percent organic matter, particle size distribution and routine fertility analysis. The analysis should be done by one of the labs accred-

ited by the Ontario Ministry of Agriculture and Food (see box below).

The cost of the analysis conducted on the “compost” was \$70. This is a small price to pay for the assurance that the material is in fact compost. Due to the lack of quality control on compost it might be wise for the purchaser to suggest that samples will be taken from random loads as they are delivered for verification of the analysis on which the purchase was made. ♦

## ACCREDITED LABS

U of G Soil and Nutrient Laboratory  
P.O. Box 3650, 95 Stone Road West  
Guelph, ON N1H 2W1  
(519) 767-6226

A & L Canada Laboratories East Inc.  
2136 Jetstream Road  
London, ON N5V 3P5  
(519) 457-2575

Accutest Laboratories  
146 Colonnade Road, Unit 8  
Nepean, ON K2E 7Y1  
(613) 727-5692

Agri-Food Laboratories  
503 Imperial Road, Unit 1  
Guelph, ON N1H 6T9  
(519) 837-1600

Stratford Agri Analysis  
P.O. Box 760, 1131 Erie Street  
Stratford, ON N5A 6W1  
(519) 273-4411