

BLACK EARTH

ENHANCING...NATURALLY



RESEARCH TRIAL SUMMARY

BLACK EARTH HUMIC LP

13044 Yellowhead Trail
Edmonton, Alberta,
Canada T5L 3C1
Phone: (780) 453 - 2100
Fax: (780) 421 - 4835

e-mail:
sales@blackearth.com

Web Site:
www.blackearth.com

GUELPH - TURF

TITLE – Effects of Humic Products on Growth of Creeping Bentgrass.

RESEARCH COOPERATOR – K. Carey (Ontario Turfgrass Institute).

TRIAL OBJECTIVE – To compare the effects of humic products on root and shoot growth of newly seeded and establishing creeping bentgrass.

EXPERIMENTAL DESIGN

Species	Creeping bentgrass – <i>Agrostis palustris</i>
Variety	Pencross
Location	University of Guelph greenhouses, Guelph, Ontario
Measurements	Germination and seedling count, chlorophyll index, turf weight and shoot biomass
Experimental design	Six management treatments. Each treatment was replicated 5 times.

TREATMENTS

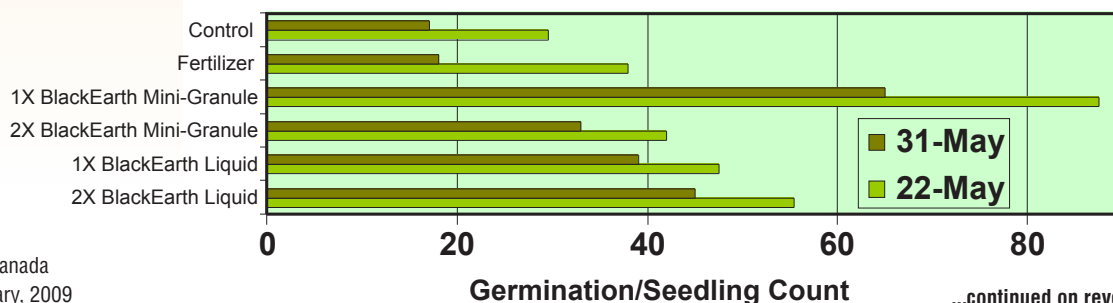
1	Control – Unfertilized
2	Control – Standard fertility
3	BLACK EARTH Mini Granule 2.5 kg/100 m ²
4	BLACK EARTH Mini Granule 5.0 kg/100 m ²
5	BLACK EARTH Liquid 90 ml/100 m ²
6	BLACK EARTH Liquid 180 ml/100 m ²

100% USGA specifications sand was used as the root zone. One litre pots were filled and seeded on May 15, 2002 at a seedling rate of 0.85 gms/m² and placed in a randomized complete block layout. Pots were kept moist until germination and irrigated. Fertilization, except the unfertilized control, was a standard turf maintenance regime. (4:1:2 N-P-K ratio an annualized rate of 0.02 g actual N/m²)

RESULTS AND DISCUSSION

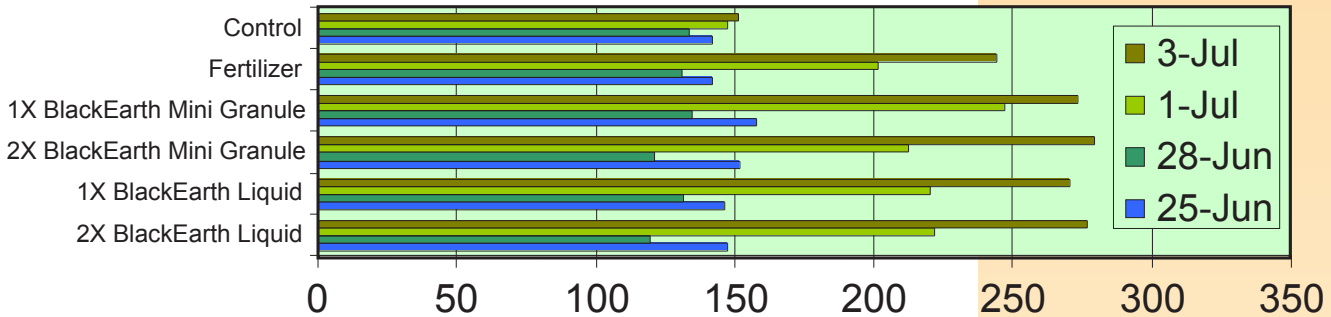
Germination and establishment were assessed by ranking pots according to a visually estimated scale. There was a significant effect with the granular humic treatments in sand soil versus both control and fertilizer treatment.

Effect of Humic Materials on Germination and Seedling Count



GUELPH - TURF RESEARCH TRIAL SUMMARY ...continued

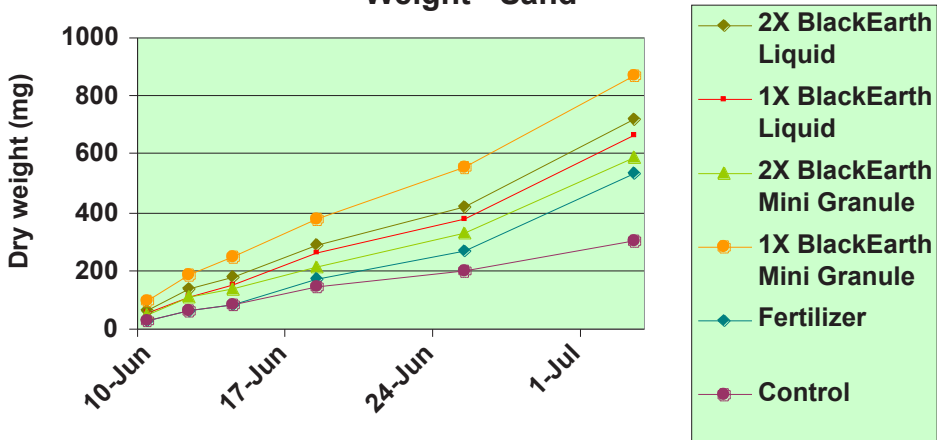
Effect of Humic Materials on Chlorophyll Index



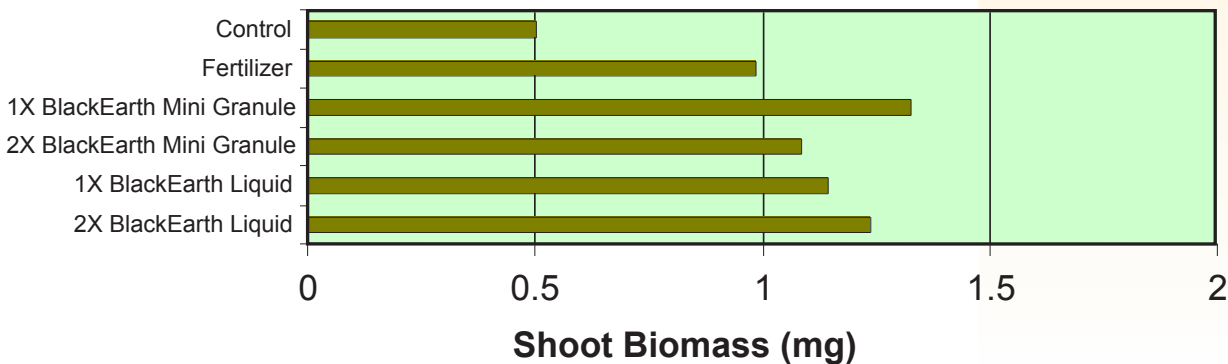
BLACK EARTH had a significant effect on the chlorophyll content, particularly late in the experiment.

The shoot growth rate of turf treated with **BLACK EARTH** was significantly higher than those without humic.

Effect of Humic Materials on Cumulative Turf Weight - Sand



Total Shoot Biomass



BLACK EARTH treatments all had significant beneficial effects on bentgrass growth. There were no differences in nutrient content suggesting this was not the reason for the increased growth. There were no differences in rate or form of **BLACK EARTH**.