

Sports Turf Manager

FOR BETTER, SAFER SPORTS TURF. SPRING 2012. VOL. 25. NO. 1.

Climate Change & Turfgrass

Jonathan Newman, Professor and Director, School of Environmental Sciences, University of Guelph

Climate change used to be called “global warming”. The change in name reflects the fact that our climate will not just be warmer, but also different in terms of precipitation, humidity, snow cover and so on. In short, a wholesale change in our climate, hence the term “climate change”. I know there are probably some of you who don’t believe in climate change. I don’t have room in this article to present you with all of the (very substantial) evidence that our climate is changing and will change quite rapidly over the course of this century. I will simply say this, the best climate scientists in the world all agree that our climate will warm, by about 2-4.5°C over the next 100 years, and leave it at that. At the end of this article I make a couple of reading recommendations that may be helpful to the interested reader.

That amount of warming, 2-4.5°C doesn’t sound so bad, does it? What you

have to keep in mind is that is the global mean temperature change. It’s not the local change; some places will see much greater warming than the global mean, and of course some places will see much less warming. To give you some idea of what that means for us in Canada, Figure 1

THAT AMOUNT OF
WARMING, 2-5°C
DOESN'T SOUND SO
BAD, DOES IT?

shows the predicted mean daily air temperature in Guelph, Ontario from 1961 to 2100 as predicted by the Canadian Global Circulation Model (Environment Canada). In the figure you can see that by the end of the century winters will be about 8°C

warmer and the mean daily temperature will be close to zero. In Guelph, those changes in temperatures will be accompanied by generally wetter winters and springs, dryer summers, and autumns that remain about the same as they are now. Note too, that although the trend across the century is quite clearly upward, there is still considerable year-to-year variation. This means that when we get a particularly cold winter or cool summer, it is not a sign that climate change is all bunk (and equally neither is a particularly warm winter or hot summer proof that climate change is real). You have to look at the long-term trend to see what is happening.

OTS HIGHLIGHT

**Continued inside on
pages 10-12.**

Inside Features

14 PHOSPHORUS LOSSES FROM TURFGRASS AND THE URBAN ENVIRONMENT

Why all the fuss about phosphorus?

20 WHAT LIES BENEATH BMO FIELD? One of the highlights of BMO Field’s construction is the Glycol Heating System.

26 CIRCLE CHECKS ARE NOT JUST FOR YOUR EQUIPMENT
All workplaces must invest in comprehensive ongoing worker training.