

## **Value to Canada of Agricultural Experiments on the Central Experimental Farm**

We are writing to inform you of the value of the AAFC land on the Central Experimental Farm which has been transferred to the National Capital Commission and offered to the Ottawa Hospital for the construction of a new Civic Campus.

Field research at the Central Experimental Farm has been continuously conducted for more than 125 years, and many important findings from field experiments over this time have had a world-wide impact on agriculture. Early maturing, short-season corn, cereal, and soybean varieties developed on the CEF have been paramount to the expansion of these important crops in the cool regions of Ontario, Quebec, western Canada, the Maritimes, and even Northern Europe. It seems inconceivable that we would even consider building a hospital on a National Historically Designated Site where most of the land being transferred is devoted to long-term experimental plots.

The section of land being transferred to the Ottawa Hospital contains one of the longest-running soil, cropping, and environmental experiments under continuous cultivation and observation in North America. Some of these experiments are part of an international network of soil experimental plots with three other countries.

Why are long-term experimental plots so important? Long-term field experiments are designed to study the impact of various farming practices over many years and are considered to be one of the best ways to improve crop yield and promote soil health. It may take decades to reveal an ongoing negative trend, such as the depletion of a soil's productivity, and it can take an equally long time to reverse the trend and register a degree of recovery. Long-term field experiments are also important because the subtle effects of agriculture on the wider environment may take a long time to become evident. Furthermore, data collected from long-term experiments that describe changes in crop yield or soil health become more reliable and more valuable the longer the experiment is conducted. These data are essential for validating the computer models that are used to make economic and environmental predictions related to farm production. They provide one of the very best tools to understand key problems facing farmers today and to guide policy-makers and researchers to find solutions.

Ecologically significant changes to land often occur very slowly, and can be seen only after decades of continuous observation. Agricultural science depends on a long and steady history of observation, and there exist only a few places in the world where this long-term history exists and produces accessible data. One of these study sites is the Rothamsted Experimental Station in the UK, which was initiated in 1843. Despite Canada's being a much younger country, the CEF was established only a few decades later, in 1886, and therefore ranks high in the world as a long-term agricultural experimental institution. We should not deliberately breach this historical record. Nor should it be believed that CEF's long-term experimental plots can be relocated without resetting the research clock to zero and losing the accumulated data and knowledge gained over the years. The hospital facility could be more easily and expeditiously located elsewhere. One alternative site is across the street from the Civic Hospital where the former Carling Building was situated; this location and the surrounding lawns pose no threat to ongoing historical research.

Protecting this valuable research resource is not for the benefit of the researchers, but for all Canadians. Maintaining and enhancing soil fertility and crop productivity will continue to be of worldwide importance as the rapidly growing global population drives up the need for food and fibre at the same time that climate change threatens our ability to meet those needs. The long-term field studies being carried out at the CEF and the extensive data they produce are a national treasure and a priceless international resource. It is in our best interests to preserve and protect the continuous history of these plots and insight they provide into farming practices and crops, for the benefit of this generation and those that will follow us.

Signed by the following ECORC research scientists:

Ed Gregorich  
Steve Gleddie  
Malcolm Morrison  
Harvey Voldeng  
Linda Harris  
Keith Seifert  
David Lapen  
Allen Xue  
Laurian Robert  
Daina Simmonds  
Xiaoyuan Geng  
Carlos Monreal  
Ted Huffman  
Budong Qian  
Andrew VanderZaag  
Thin Meiw Choo  
Jas Singh  
Steve Molnar  
Con Campbell  
Ray Desjardins