Ed Gregorich has done a lot of field research in his career, and as a native of Wisconsin, USA, and a resident of Ottawa, Canada, he’s no stranger to frigid weather. Still, nothing quite prepared Gregorich, a soil scientist with Agriculture and Agri-Food Canada, for working in Antarctica.

Invited to join an international research team led by a pair of New Zealand scientists, Gregorich traveled to Antarctica in 2003, 2004, and 2005 to measure soil carbon pools, soil respiration, and other related factors. The team conducted its study along the shores of Lake Colleen in the Garwood Valley on the coast of Victoria Land, Antarctica, just south of Cape Chocolate. Garwood Valley is a largely ice-free “dry valley,” although looming at its head is the Garwood Glacier. Here’s what Gregorich told *Soil Horizons* about working in this far-flung and starkly beautiful place.

**Soil Horizons:** How did you get involved in this project?

**Gregorich:** I was invited by the New Zealand scientists. They were the lead on it, and they got the funding from Antarctic New Zealand, their local funding agency. They basically put together a team of people who had expertise in different disciplines and areas of research. They had somebody from Scotland, and Denmark, and me from Canada, [although] the team differed a little bit from year to year. My area is soil carbon cycling, and they had some experts in microbiology, geology, and geomorphology.

**Soil Horizons:** Had you done research in comparable environments to Antarctica before?

**Gregorich:** Well, I do a lot of field work, but I had never before worked in an extreme environment like that. The approach we used was similar to other studies—taking the soil samples and readings. Well, it was similar but also different because of the harshness of the environment and where we were located. It’s very remote. The whole project was through the Kiwis’ (New Zealanders) research station called Scott Base. We flew there, and then we were put out in the field and stayed out there for roughly two weeks. We were by ourselves about 100 kilometers (62 miles) by helicopter from Scott Base.

**Soil Horizons:** What’s it like to work in such an isolated spot?

**Gregorich:** The logistics are the big difference: getting organized not only for field work, but remote field work, and not being supplied on a daily basis. We weren’t supplied for up to 10 days. We had to maintain radio contact for safety reasons. But we took everything with us and then we had to carry everything out, too. It’s not like camping in the woods. You have to bring everything back, including all the toilet stuff (laughs). They have really strict requirements there. We had to have permits, and everything had to be documented about what we were doing in the soil. We got a special permit to put some minor organic compounds into the soil. And we had to document where they would be, how long they would be there, and when we would take them out.

So the difference in this type of field work is logistical: the long-term planning, getting the permits, and getting everything approved.