

## Why pay attention to science?<sup>1</sup>

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I must confess to being a bit confused and somewhat dismayed by what I perceive to be the current inattention to the pursuit of new science in soil and water conservation. Indicative of the views I've heard are such contentions as "we know how to do this stuff" and "the most important thing is that people agree with what we're doing."

At the same time, I am constantly amazed at how many things I don't know and how much new information I am able to glean from today's ongoing scientific progress. It also is illuminating to realize how many times the "politically correct" or majority view of the moment turns out to be wrong. We blindly accept popular ideas at significant risk. They may turn out to be right, but history teaches us that often is not the case.

I realize this may sound like the ruminations of an old fogey—particularly to today's young professionals. But we all were young professionals once. At that time, we were convinced we had most, if not all, the answers. There was little left to learn. We didn't have the time and certainly didn't need to expend any effort slogging our way through the research reports that clogged the arteries of our professional journals.

Over time, of course, those attitudes proved to be an illusion. Many of the ideas we were wedded to most have since been discredited. Some of our best efforts have been judged, in retrospect, to be flawed. On the other hand, much of what we accomplished has stood the test of time, and today we view it as a significant accomplishment. So how do we tell the difference? What allows us to judge accurately tomorrow's new challenges? That "something," I would argue, is our continued connection with the ongoing progress of scientific research and learning.

One of the most rewarding aspects of a continued attention to science is the mental discipline it imposes on each of us. As individual professionals, we need to maintain an open and inquiring mind. Some of our pet ideas may fail the test of time. New ideas—concepts we never imagined—may gain favor. The scientific mind accepts both circumstances. If we believe in the scientific method, where hypotheses are tested and their validity is judged by whether they succeed or fail, we are conditioned to accept either verdict.

The problem of not pursuing new science with intellectual vigor is more than the fact we might miss useful information. It is the risk that our minds will harden and lock onto what was once true rather than what has been newly learned. If that occurs, we become prisoners of the past, and the continued growth of intellectual capital quickly slows or stops.

That can happen to individuals and organizations alike. To the practicing conservation professional, being too busy to read relevant research reports quickly translates into being

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out of date. To the organization that slights its attention to the development of new scientific insights through research and development, the future becomes more and more constrained as it exhausts its store of intellectual capital.

On a personal note, after 42 years in the business of conservation, I belong to two professional societies (including SWCS) and read their journals regularly. I skim *Science* and *Nature* weekly to see if there is anything new I need to know. And the Web. Call it curiosity if you will, but I have learned more about my profession in the last 5 years than I learned in the prior 37. The reason has little to do with me; it more accurately reflects the enormous outpouring of scientific insight that has occurred recently.

The conclusion I draw from experience is this: The professional who neglects the constant study of new science, the agency that finds its budget too constricted to invest in new learning, and the professional society that allows popular material to crowd out scientific papers all are failing to keep up with the world around them. Each risks becoming a relic of the past. We should all—personally and organizationally—strive to avoid such a fate.