

become dominant: do we know enough to take action now? The point has been made eloquently and often, that controlling the emissions that produce acid rain would cost a lot of money. And that, depending on how it is done, it might cost jobs and it would cost consumers. The conclusion is then either drawn or implied that until science provides us with some undefined degree of certainty it would be imprudent and irresponsible to reduce pollution.

If our only concern was this month's or this year's balance sheet, and if our only yardstick was economic cost benefit analysis, we should do nothing about acid rain. But by the same token we should have done nothing about DDT or soil erosion or reforestation. We should then also deregulate fishing and hunting seasons and not worry about next year's game. Market forces tend to demand and reinforce short-term decisions. Our sense of history and our social values demand a longer view. How we balance these sometimes competing interests will determine how we respond to acid rain.

Still, the issue of scientific uncertainty is a valid one. Whatever the perceived threat, there must be some reasonable basis of scientific fact before we decide on serious and expensive courses of action. Are we sure we are on the right track? Is it not possible that today's acid rain researchers are like the flat earth astronomers of the middle ages following the beliefs of Ptolemy? Are we still waiting for the Copernicus of acid rain?

It does not seem very likely. First, let us look at what we do know. The small international community of acid rain researchers has been telling us for many years that we have a potentially devastating problem. This group is remarkable, not only for its insights and the rapidity with which it has advanced our understanding of acid rain. It is also remarkable for the broad consensus that exists within it on the central points:

- that acid rain is real;
- that it is essentially man-made;
- that it is associated primarily with major industrial regions;
- that it results from transformation in the atmosphere of sulphur and nitrogen oxides into strong acids;
- that those acids are then deposited, sometimes hundreds, occasionally thousands, of miles away;
- that there are many areas on earth which are not acidifying naturally but are sensitive to unnatural acidification;
- that such acidification is taking place;
- that it has caused the diminution or destruction of fish and other populations in many acid sensitive lakes and streams;
- that far larger numbers are at risk; (including 2 000 in your state)