

Since 1980 Canada has outlawed the main uses of propellents — in hairsprays, anti-perspirants and deodorants. This has reduced the use of CFCs in aerosol cans by 86 per cent, providing a worldwide reduction of 45 per cent in the use of CFCs on a national scale. Still, their use has begun to rise again because other CFC applications have been gaining popularity.

Recognizing the urgency and significance of the problem, in September 1987, Canada and 33 other countries signed the Montreal Protocol, which provides for a 50-per-cent reduction in CFC use by 1999. However, Canada intends to go much further. By 1999 it expects to reduce use of CFCs by 85 per cent, and if possible eliminate them completely. Canadian industry is applying itself to finding replacement products that will help prevent the ozone layer from thinning even further.

Acid rain

Plants withering, toxic metal concentrates in the food chain, heritage buildings disintegrating at an ever-increasing rate: these are only some of the disastrous effects of the phenomenon called "acid rain." It is caused largely by the release into the atmosphere of sulphur dioxide (SO_2) and nitrogen oxides (NO_x) from a number of industries, such as power plants and foundries, and from internal combustion engines. In the air, the two elements change into sulphate or nitrate particles, then, combining with water vapour, into weak sulphuric or nitric acid. These pollutants are then carried hundreds, even thousands of kilometres away by prevailing winds before falling as rain. It is literally raining acid: rain falling on central and eastern Canada is 10 times as acidic as clean rain.

Although the phenomenon is still being studied, the consequences are more and more obvious. In Quebec the deterioration of maple forests is endangering maple syrup production; in Ontario 48 000 lakes are vulnerable to acid rain and a few hundred are already "dead"; in several rivers in the Atlantic provinces salmon are no longer returning to spawn. Acid rain spares neither aquatic life, vegetation nor human activity.

Four million km^2 , or 46 per cent of Canada's land mass, have aquatic ecosystems that are very sensitive to acid rain. These zones of high vulnerability, mostly in eastern Canada, are also the ones where fresh water is most plentiful — the choice areas for sport fishing and recreation.