Molybdenum in the environment

**Figure 21a.** Molybdenum dispersion with time

- Ancient origin of metal deposit
  Molybdenum deposit forms 145 million years ago, 2 km below the Earth’s surface.

- The Ice Age: scattering the metal
  Erosion by glaciers spreads molybdenum-rich fragments across the landscape.

- Mining the riches
  The molybdenum deposit is mined.

- Ranching / farming with metals in the environment
  Cattle eat molybdenum-enriched forage, causing molybdenosis.

- The last 12 000 years: metals on the move
  Dispersion of molybdenum by ground water. Plants take up molybdenum, which is transferred to some animals as they graze.

**Figure 21b.** Molybdenum concentrations in till and pine bark

- MOLYBDENOSIS
  Cattle that ingest too much molybdenum are unable to absorb sufficient copper from their food. Copper deficiency can cause growth and reproductive problems. This disorder is termed molybdenosis and can be treated by injecting the cow with a copper supplement.

Molybdenosis in cattle is linked to 1) soils with high molybdenum concentrations; 2) grazing on legumes (clover, pea-vine) rather than grass (grasses absorb less molybdenum than legumes); 3) alkaline soils, which...