

"Could a cotton plant be bred to exude a chemical that repels boll weevils? Could a rare Alpine

plant's ability to produce a medicinal compound be transferred to a plant that flourishes in New Jersey soil?"

These questions and a dozen others, all with important economic and social consequences, were discussed in a *New York Times* story carried around the country on the NYT network in February 1982. At a time when native plants now listed as endangered species are being reviewed, botanists are pointing out that 25 percent of the drugs prescribed in this country contain compounds extracted from plants, and that these medicinal compounds were found in 50 species – which is one percent – of the 5,000 species so far investigated for the presence of useful drugs.

Dr. Norman R. Farnsworth of the University of Illinois College of Pharmacy in Chicago, told an audience at the recent annual meeting of the American Association for the Advancement of Science that one percent of the approximately 500,000 plant species of the world may have medicinal value. U.S. Fish and Wildlife Service botanists estimate that 3,000 plant species in the U.S. may disappear in the next few decades unless they receive government protection.

This massive loss of genetic material comes at precisely the moment when the new technology of gene transfer is making giant advances. "The implications of this new technology are tremendous, and the extinction of species now takes on a new meaning." Dr. Thomas Eisner, a Cornell University biologist, told a Senate committee hearing recently convened to consider reauthorization of the Endangered Species Act.