

2003 Environmental Issue

Agricultural Land Conservation & Preservation

Agricultural lands – cropland, pasture, and rangeland – form the economic, social, and cultural backbone of much of North America. Agriculture plays an important role economically, contributing hundreds of billions of dollars in gross domestic product annually. Millions of people are employed – directly and indirectly – in agricultural production. Farmland – including row crops, pasture, and range – covers hundreds of millions of acres.

Yet, productive arable agricultural lands – areas with fertile soils, adequate water, and a climate capable of producing food and fiber – are a finite resource.

- For much of human history, soil erosion has posed a significant threat to agricultural lands and has had a significant impact on water quality. According to United States Department of Agriculture (USDA) 1997 Natural Resources Inventory, erosion carries away more than 2 billion tons of soil annually in the U.S. Considerable erosion also occurs on Canadian crop- and rangeland. In 1986, almost 15 percent of cultivated lands were affected by moderate and severe wind erosion. At a soil-loss rate of 10 tonnes per hectare, this means that at least 63 million tonnes of prairie topsoil were lost, according to Agriculture and Agri-Food Canada.
- During the past 20 years North America has experienced rapid commercial, economic, and residential growth, which continues today.
 - According to the USDA's National Resources Inventory, an average of more than 1 million acres of agricultural land were developed in the U.S. each year between 1992 and 1997. As agricultural lands – including cropland, pasture, rangeland – are developed for other uses, we lose not only its food and fiber production and associated jobs, but also scenic viewscapes, wildlife habitat, wetlands, and open space.
 - According to Agriculture and Agri-Food Canada (AAFC), between 1901 and 1996 Canada's cultivated land area expanded five-fold. In contrast, the supply of dependable agricultural land dropped by an estimated 16% over this period because of conversion to urban and other non-agricultural uses. In the 1980s, the area of land under cultivation in Canada surpassed the supply of dependable land. This situation indicates that agricultural production is becoming more reliant on marginal land, with possible effects on productivity, soil quality, wildlife habitat, and other environmental aspects.

Soil conservation efforts began in earnest in the United States in the 1930's with the establishment of the Soil Conservation Service, now the Natural Resource Conservation Service (NRCS). In doing so, approved legislation led to the formation of 3,000 soil and water conservation districts in the United States. Through years of dedication and commitment to farming, these local soil and water conservation districts have been key partners to the success of farmland conservation and preservation efforts. Several Canadian programs – the Canada National Soil Conservation Program and National Soil and Water Conservation Program (NSWCP – 1997-1999) – have also dealt with soil erosion and conservation. Resource professionals from federal, state, provincial, and local agencies provide farmers the necessary assistance for the installation of best management practices to conserve and protect the farmland utilizing a land preservation program.

Federal, state, and provincial governments, and non-profit land trusts and land preservation organizations are working in various ways to facilitate the preservation of farmland. Farmland is continually being developed for other land uses that may destroy prime farmland, scenic viewscapes, or wildlife habitat.

We will provide opportunities for students to experience and gain knowledge about the management and stewardship of our natural resources through hands-on activities, authentic assessment, and personal contacts. The students will take home with them an understanding of how the quality of life is affected by the quality of our natural resources and will understand the need to conserve and preserve agricultural farmland.