Liming soil is an ancient agricultural practice. Cato and Varro (about 200 B.C.) and Dickson (1788) referred to the use of lime in the first and second centuries B.C. The Romans tested for soil acidity by tasting fresh water percolated through a basket of soil. The early settlers in England used marl. Use of lime in the United States was promoted by the writings of Ruffin (1821, 1852) in the *American Farmer* and in his books on liming in which he reported that marl applications improved crop yields on his farms (Hde, 1952). Agricultural experiment stations in several states began research on lime between 1880 and 1902 (Linsley, 1954; Patterson, 1906; Latta, 1885). They used either burned lime, gas lime, or marl since crushed agricultural limestone was not readily available.

An *agricultural liming material* is defined as a material whose Ca and Mg compounds are capable of neutralizing soil acidity. These materials include quicklime, hydrated lime, limestone (both calcitic and dolomitic), marl, shells, and byproducts such as slag.

Limestone is the main liming material used. It may be calcite (CaCO$_3$), dolomite (CaCO$_3$·MgCO$_3$), or a mixture of these two minerals. Pure dolomite has equal molecular ratios of CaCO$_3$ and MgCO$_3$, and on a weight basis, it consists of 54.3% CaCO$_3$ and 45.7% MgCO$_3$, or 21.7% Ca and 13.1% Mg, since the molecular weight of Mg is less than that of Ca.

The total use of agricultural limestone in the United States is shown in Figure 1. Between 1935 and 1950, the use of agricultural limestone increased almost 10-fold. In the 1930s, federal programs developed to conserve the soil included financial assistance for the purchase of lime. This undoubtedly stimulated its use. The use of limestone decreased after 1950, reaching a low in 1954. Use between 1954 and 1980 increased about 75%, although there was a significant, albeit temporary, decline in use in the early 1970s. The amount of lime used is affected by changes in cropping programs and also by the way in which federal subsidy funds are used. Agronomists estimate that farmers of the United States could profitably use 80 million t of lime yr$^{-1}$. This is three times the amount used in 1981.

The use of hydrated lime, burnt lime, marl, and miscellaneous liming materials has decreased in recent years. The total of these materials, al-