The status of oat (Avena sativa L. and A. byzantina K. Koch) cultivar development until 1959 was reviewed by Coffman et al. (1961). Cultivar development for the USA and Canada since 1959 has been largely a task of public agencies that use the extensive germplasm base developed by previous scientists to create useful germplasm and improved cultivars. In the USA, the majority of oat breeding is conducted by state agricultural experiment stations in cooperation with the U.S. Department of Agriculture (USDA). The only recently active private U.S. oat-breeding program was conducted by Coker’s Pedigreed Seed Co., Hartsville, SC. Since about 1910, Coker’s has had a distinguished record of producing excellent winter oat cultivars for production in southern sections of the USA. Several private oat-breeding programs exist in Canada and Europe, but their impact is small compared to that of the public sector. Most of the oat breeding in the major oat-producing countries, including Australia, Canada, Europe, and the former Soviet Union, is conducted by public agencies. Excellent public oat cultivar development programs are conducted in Canada at Ottawa, ON and Winnipeg, MB.

Germplasm developed in various programs is often useful to achieve specific objectives common to many breeding programs across broad geographic areas. This results in genetic similarities in cultivars in diverse regions throughout North America. Regional differences in environmental conditions, pest problems, and production practices for oat necessitates developing cultivars uniquely adapted for environments of specific regions. Commercial use of individual cultivars is usually restricted to specific areas of adaptation. This has led to similarities in the germplasm developed within specific geographic regions. Therefore, this discussion of cultivar development since 1959 is treated on a regional basis. Detailed pedigrees of cultivars and germplasm lines developed during this period are presented in Table 16-1.