Alfalfa (*Medicago sativa* L.), often called “Queen of the Forages”, is the most important forage crop species in the USA and Canada. It is a remarkable crop in comparison with others. Alfalfa is recognized as the most widespread adapted agronomic crop; effective source of biological nitrogen (N2) fixation; energy-efficient crop to grow; important source of protein yield/ha; and attractive source of nectar for honey bees.

In addition to being an excellent source of vitamins and minerals, alfalfa is important for improving soil tilth. Because of these impressive credits, alfalfa has achieved the status of being a primary agricultural crop in the USA and Canada. It also provides a model system for many types of research on other forage crops and for species characterized by autotetraploid inheritance.

In 1972, publication of the ASA monograph 15, *Alfalfa Science and Technology*, was a significant highlight in the history of alfalfa in North America. It assembled all available information about alfalfa and provided an impetus for scientists to improve the breeding, production, and utilization of alfalfa, and for industry to increase the potential usefulness of the crop. Hanson and Davis (13) authored chapter 2 “Highlights in the United States of America” in the monograph. This chapter is a sequel to theirs; it summarizes past highlights, and describes major advances in technology achieved in the USA and Canada since the early 1970s. We have concentrated on the development of improved breeding and crop production practices, and on factors that affect germplasm improvement, seed availability, crop utilization, and research productivity.