

Preface

This report summarizes the twenty years of research that scientists at the North Dakota State University Dickinson Research Extension Center dedicated to investigation of the problems related to procedures of interseeding plant material into existing plant communities and to the management of interseeded grassland pastures. Three research programs pertaining to the development of techniques to interseed plant material into grassland plant communities were conducted between 1969 and 1989. The first techniques study, conducted from 1969 to 1978 by Dr. Harold Goetz and Dr. Warren C. Whitman, evaluated the feasibility of interseeding native and tame grass species and legume species by mechanical treatment into native grassland to increase herbage production. The second techniques study, conducted from 1976 to 1980 by Paul E. Nyren, developed and tested modifications of no-till drills for interseeding native and tame grass species and legume species into native grassland. The third techniques study, conducted from 1982 to 1989 by Dr. Llewellyn L. Manske, evaluated the component processes of interseeding techniques and identified the portions with advantages. Selected segments were combined to develop techniques and mechanical processes performed by a rugged simple machine that could be used to interseed alfalfa into grassland ecosystems. A pasture management study, conducted from 1977 to 1981 by Paul E. Nyren and Dr. Harold Goetz and continued from 1984 to 1988 by Dr. Llewellyn L. Manske, evaluated grazing alfalfa interseeded native grassland pastures.