

EVER CHANGING FARM CROP TYPES AND PRACTICES IN THE NORTH AMERICAN WATERFOWL PRODUCTION AREAS OF NORTH AMERICA ARE PRESENTING SOME NEW IMPACTS ON NESTING DUCKS

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ABSTRACT

Historically, the most common farm crops in the northern Great Plains were winter and summer wheat, barley, oats, and flax with lesser amount of corn. In later years, soybean and alfalfa were added as 'new crops'. And even later on, potatoes, sugar beets, and sunflowers were added as new field crop types, none of which were very useful to nesting waterfowl. In his 1955 book, "Prairie Ducks", Lyle K. Sowls addressed early duck nesting in early spring stubble and fallow fields (see pages 67-79) where only 14 pintail and one mallard nest were found during a 5-year period of nest searching (Sowls, L.K. 1955. *Prairie Ducks*. Wildlife Management Inst., Washington, DC.). Similarly, low numbers of duck nests were found in over-grazed pastures in the same area in Manitoba, Canada. Similarly, very low numbers of duck nests were found during nest searches in numerous cropland and fallow fields in North Dakota (Higgins, K.F. 1977. *Duck nesting in intensively farmed areas of North Dakota*. Pages 232-242 in Johnson, C. J., and D.H. Knight. 2022. *Ecology of Dakota Landscapes: Past, Present, and Future*. Yale University Press; New Haven. 320 pp).

Besides the biologists that worked specifically on nesting studies, a larger number of other biologists were walking across fields in order to inventory the number and species of breeding pairs of ducks located on wetlands in all habitat types. They also made notes on hen ducks flushed from nests during their surveys. Their nest numbers showed that nesting efforts were very low or absent in most fields of croplands they walked through further validating very low duckling production from these fields.

Besides good nesting habitats, ducks also need ready access to wetland waterbodies. In a recently published book, (Johnson, C.J., and D.H. Knight. 2022. *Ecology of Dakota Landscapes: Past, Present, and Future*. Yale University Press; New Haven. 320 pp.) the authors showed that for North and South Dakota combined about 38 million acres of grasslands, over 2 million wetlands, about 9 million acres of pasture and haylands, and 34 million acres of cropland occur. Since statehood, several million acres of wetlands have been drained or greatly altered. More recently millions of linear feet of small diameter plastic drainage or

dewatering tile lines have been installed in the past 15 years or so to help dewater croplands and shallow wetlands.

Besides for waterfowl, wetlands also provide water for many other wildlife species and for domestic livestock alike. Natural wetlands are particularly beneficial during years or seasons of drought or sub-average precipitation years or seasons.

In retrospect, with 34 million acres of annual croplands occurring in the two Dakotas and similar cropland acres occurring in Manitoba, Saskatchewan, and Alberta Canada, we cannot annually expect large production numbers of new ducklings from those areas in future years. This trend is further confounded in lieu of many new crop types like soybeans, corn, etc. that rarely yield very many, if any, successful nesting attempts annually. The author has witnessed this trend during the past 59 nesting seasons beginning in the Canadian Provinces in 1963 with Jerome Stoudt and others. When possible, the author will continue to make repeat visits and surveys on various parts of the old study areas on an annual basis.