The National Wild Pheasant Conservation Plan

Key Literature:
Effects of roadside management on pheasant habitat, abundance, and demographics

Last Updated: December 18, 2016

Note: The literature cited below represents a subset of the information used when making pheasant management decisions related to this topic. It is intended to provide a general sense of the primary research available on the subject, but is not comprehensive. Other information on the topic may also be available in books and technical bulletins that do not lend themselves well to this form of summarization. The list will be periodically updated upon request by National Wild Pheasant Technical Committee members.

Warner, R. E., and G. B. Joselyn. 1986. Responses of Illinois ring-necked pheasant populations to block roadside management. Journal of Wildlife Management 50:525-532.

Abstract: Ring-necked pheasant (*Phasianus colchicus*) nesting and population trends were studied 1967 through 1984 on a block roadside management area in Illinois, the 5,182-ha Ford County Management Unit (FCMU). Vegetation was developed as breeding habitat on roadsides, and mowing voluntarily delayed by farmers to minimize nest destruction. Compared with a nearby reference area, pheasant abundance on the FCMU was numerically low prior to management (1967-69) and was 2-3 x greater beginning in 1970. The juxtaposition of other key habitats in the land mosaic influenced the use of roadsides by hens. Under a diverse farming situation, undisturbed roadside cover and other landscape features had a synergistic effect on local pheasant abundance. The effects of roadside management were such that the phase in regional pheasant trends were amplified, and subsequent declines related to land use and winters were moderated.

Warner, R. E., G. B. Joselyn, and S. L. Etter. 1987. Factors affecting roadside nesting by pheasants in Illinois. Wildlife Society Bulletin 15:221-228.

Abstract: Trends in pheasant nesting were considered for managed roadsides and other cover types from 1963 to 1972 on the 9,393-ha Sibley Study Area – a period of transition to intensive row crop farming. Nest densities on seeded roadsides exceeded all other cover types, averaging 6.7/ha for plots seeded to cool-season grasses and legumes, 4.5/ha for managed control plots, and 2.7/ha for unmanaged control roadsides. About 29% of the nests on seeded roadsides hatched, similar to rates of nest success in hayfields. Although 77% ($P < 0.05$) of the annual variation in hatch success on seeded roadsides was associated with nest destruction by mammals, these linear tracts did not appear subject to the gradual convergence of predators – and increased destruction of nests – found to occur over a period of a few years for some managed field configurations. The most attractive seeded roadside plots were typically well-established stands of brome with alfalfa and/or red clover; plots with high nest densities were in proximity to other prime nest habitats such as hay. Nest densities on seeded plots

were correlated (r = -0.846, P < 0.05) with the amount of potential nest cover/hen in the spring; pheasants were particularly prone to nest on managed roadsides in years when key farmland habitats were at a premium (relatively sparse amounts of prime nest cover/hen). Thus, in addition to offering an environment free of agricultural disturbances, managed roadsides to some extent served as a buffer for year-to-year variations in the relative availability of nest habitats.