Responses of Ring-Necked Pheasants to Conversation Reserve Program Fields During Courtship and Brood Rearing in the High Plains

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ABSTRACT

The Conservation Reserve Program (CRP) of the 1985 Farm Bill was expected to help restore declining ring-necked pheasant (Phasianus colchicus) populations. Pheasants responded to CRP differently in Midwestern states. Most research in North America addressed habitat use by pheasants during nesting and winter periods. Their responses to CRP may also be important during other periods of the year. This study was initiated to estimate pheasant numbers and habitat use during courtship and brood rearing in high (25%) and low (5%) CRP areas in Kansas, Nebraska, and South Dakota during 1994 and 1995.

Spot-mapping and radio telemetry were used to estimate breeding pheasant numbers and habitat use by territorial males during courtship. Road-driven routes were used to estimate numbers of pheasant broods and habitat use. Numbers of territorial males were similar on high and low CRP study sites in Kansas and Nebraska ($P>0.05$) during both years. In South Dakota, there were more territorial males on high CRP study sites than on low CRP study sites during both years ($P<0.05$). There were no differences in numbers of males with and without harems, sizes of harems, and the number of cover types per territory on high and low CRP study sites in the three states ($P>0.05$). Males in all three states established territories along edges between residual cover and open ground or short vegetation. Few habitat preferences by territorial males were detected.

Numbers of broods were similar on high and low CRP study areas in Kansas and Nebraska during both years ($P>0.05$). There were more broods on high CRP study areas than on low CRP study areas in South Dakota during both years ($P<0.05$). Brood sizes within the three states did not differ significantly ($P>0.05$). Broods in Kansas and Nebraska preferred CRP ($P<0.05$) on several study areas, while broods in South Dakota only preferred CRP on low CRP areas during 1994. Differences in CRP management, age, and local farm practices may be responsible for the observed trends in each state.