Purpose of study.

We were interested in understanding what the level of sustainable wild pheasant harvest is on farm ground managed intensively for wild pheasants. We hoped to gain an understanding of which variables were key to increasing levels of legal owned pheasant harvest. Similar research has taken place on larger study areas in Europe. For example, the British Game Council. Trained arable and wild pheasant harvest trends to lower in Austria, and similar measurements have taken place on Pelee island in the state of Michigan. However, there are a number of key differences between these settings. Our goal was to track trends of sustainable wild bird harvest in a conventional farm-ground setting in which several potential variables could only be influenced within the relatively small area.

Study area.

Our study area is located in Yellowstone County, twenty miles north-west of Billings, Montana. It is situated between the Bighorn and Sleeping Giant mountain ranges. The land is a mix of cropland, pasture, and woodland. Approximately 50% of the area is in active agricultural use, 25% is forested or wooded, and the rest is made up of prairie, small bodies of water, and natural riparian areas. The area is characterized by its open rangelands, which are interspersed with scattered wetlands, and is divided into two distinct regions: the west and east. The west is characterized by steep, rocky terrain with sparse vegetation, while the east is characterized by flat, open fields with dense stands of trees.

Study period.

The seven years from October 1998 to March 2006

Methods.

During all seven years of the study, pheasant hunting methods common to North America were utilized. Hunting dogs were always employed. Meet shoots involved groups of hunters typically six to ten, walking through cover with dogs, and with some of the hunters strategically positioned in blocking positions that anticipated pheasant escape routes. Particular focus was placed on identification and recovery.

Montana’s hunting season ran for ten weeks during the five years of the study, then was lengthened to twelve weeks during the last two years of the study.

The study period land transitioned from 175 acres (72.97%) of flood irrigated farm and pasture to a more diverse land use. About 2.5 acres are made up of cherry, plum and apple trees. An additional seven acres of irrigated ground has been developed into weakly defined wind breaks and hedgerows during the study period. About 0.5 acres of the farm has also been transplanted into additional waterways that include ponds and ditches the flow continuously through spring and fall.

Feed production methods.

In each study year and for the first, a portion of annual farm crop would be left standing, in some cases for the balance of the study. This took place with corn, sorghum, sunflower, and perennial sunflower, millet and barley. Up to 25 acres in a year were left unharvested and therefore available to pheasants and other wildlife on the property.

Pheasant census data 2006

During the prior season 207 roosters had been shot. Despite this, hens to roosters were still 1:1, indicating that hens were not being hunted. In addition, the ample moisture seemed to result in many high quality shot opportunities, and to recovery ratios that have been reported from that region.

Pheasant census data 2005

During the prior season 205 hens, 55 roosters. A territory count taken later that spring found 30 territories occurring in the study area, including 5 territories available per territory, with 6 acres per territory, assuring no disperse. Since dispersal is likely due to proximity of additional appropriate habitat adjacent to the study area, the nearer per territory limit is likely to be lower. Within a 250 meter a further increase in next year’s harvest serves probable.

Results.

During the prior season 207 roosters had been shot. The predator control program concluded one week before the study, in which 25 roosters, 10 hens, 10 coyotes, 8 skunks and 7 feral hogs were shot. This was concluded after 250 days of hunting.

Discussion.

The Pheasant census form is headquartered for floating Island international, a company that produce floating waterfowl for wetland and wildlife enhancement. The company’s production headquarters is Espy Island, Montana. A release is based on the best available data, and must be made annually to the Montana Fish and Game as a management tool. The same model is used for all forms of wildlife. A pheasant census is typically used to determine the population size of a specific species.

Cropping strategies

Crop analysis – content of bird crops tracked throughout the study period:

Year 1 ............................Grasshoppers, Russian Olives, Rose Hip Year 2 ............................Corn, Russian Olives, Sorghum-Sun Dan Year 3 ............................Russian Olives, Sorghum-Sun Dan, Corn Year 4 – 7 ............................Corn, Russian Olives, Sorghum-Sun Dan

Predator control methods.

Several strategies were employed to manage small mammal predators. Box traps armed with vibrators was broadcast around the property and pre-baited, typically starting in November – December each year. At last, box would be positioned in the box without the long being set to condition pheasants to the box as food source. Even at the conclusion of the hunting season, the traps would be set. This was the primary trapping and predator control method utilized during the last two years of the study. The effect of retaining hens effective at hunting season, and bird to bird hunting. As of this year a four square system was integrated into the predator management program, which was significantly effective in the harvesting of red fox, coyote and raven.

As of last year, all traps were also introduced into the predator control strategy. Carnivores and other wildlife management was designed to be brought in a group, letting the stage for higher game by predators. These locations, typically two, one others side of the research area, would be evenly set with cover and box traps. shrimp and box traps would be strategically patrol fields, and on or adjacent to clear trails within the property.

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