Nontoxic Shot Regulations

Toxic lead shot has been deposited by waterfowl hunters into South Dakota's marshes, lakes and fields for many decades clear back to the settlement of the prairies. As few as 1 or 2 lead pellets can be lethal to a duck, goose, or swan and estimates of 2 million waterfowl annually dying of lead poisoning are common in waterfowl literature. The wake-up call in South Dakota was a large scale die-off of waterfowl, primarily Canada geese, in central South Dakota along the Missouri River during the winter of 1979-80. More than 4,000 sick and dead geese were found along the river and attributed to lead poisoning. These geese were feeding in corn fields adjacent to the river and received heavy gunning pressure from waterfowl hunters. Geese picked up and ingested lead pellets while feeding and the grinding action of the gizzard quickly absorbed the toxic compound into their body tissues. Due to the cold winter-like conditions and a diet of corn many of the geese died over a period of several weeks.

The South Dakota Department of Game Fish and Parks Commission took a bold step and decided to do something about it. For the first time, during the 1980 waterfowl hunting season, the Commission enacted a nontoxic steel shot zone along the Missouri River where the die-off occurred. This area included portions of Potter, Sully, Hughes, Hyde, Buffalo, Brule, Lyman, and Stanley counties, including all water, islands, and bars of the Missouri River and it's embayments from the north potter County line downstream to the south Brule County line, including the Cheyenne River embayment downstream from Minneconjou Bay. This nontoxic zone for waterfowl in central South Dakota varied a bit in size over the years as areas were either added or deleted. During this time period GFP staff worked with and learned from national experts about lead poisoning, crippling issues, and steel shot ballistics. From 1979 – 1984, GFP staff visited with virtually every sportsman's club in South Dakota to discuss this issue. I was part of this effort and still remember the concerns expressed by those opposed to switching to nontoxic shot. Arguments that steel shot was ballistically inferior to lead shot and would result in more crippled birds, cause gun damage to barrels, and too expensive were heard from some hunters. Armed with the facts we were able to explain to sportsman that switching to nontoxic shot was the responsible thing to do and that a viable alternative, steel shot, was available. On February 11, 1984, the Commission directed the staff of the Department of Game, Fish and Parks to prepare and recommend a steel shot implementation schedule to reduce lead poisoning in our waterfowl and upland bird resources.

Key components of the Nontoxic Shot Implementation Schedule included:

1. In 1986 - nontoxic shot would be required for all shotgun hunting of waterfowl on or within 100 yards of the water's edge of the Missouri River from Choteau Creek (Charles Mix-Bon Homme County line) all the way to the Iowa border, including Lake Yankton and all islands and bars.
2. In 1987 - nontoxic shot would be requires statewide for all waterfowl hunting.
3. In 1989 – nontoxic shot would be required for all shotgun hunting of waterfowl, upland game birds, and small game on most public lands, most notably state Game Production Areas and federal Waterfowl Production Areas.

This effort was a giant undertaking for GFP with some bumps along the road but in 1988 nontoxic shot was required for all waterfowl hunting, statewide, with no exceptions. And, beginning on September 1, 1998 nontoxic shot was required for all small game hunting on most public lands in South Dakota, notable exceptions being private land walk-in areas, state school lands, and national grasslands. I firmly believe that the Department and Commission deserve a lot of credit for being proactive on this issue and commend the majority of sportsman for abiding by and supporting nontoxic regulations.

In the years since the lead-steel shot wars hunters have adapted quite well to nontoxic shot regulations. Many of our younger hunters have grown up using steel shot exclusively. Steel loads have evolved and have shown significant improvements from earlier loads and are comparable in cost to the old duck/pheasant lead loads. In addition there is a profusion of other nontoxic loads that feature a combination of tungsten, iron, copper, tin, bismuth, etc but these are only niche markets due to their high cost, up to $4 per shell. Hunters have benefited from shooting clinics sponsored and currently run by GFP staff. For many years Shooting Consultant Tom Roster, arguably America's foremost shotshell ballistic expert, conducted numerous 'Shooting Skills and Reducing Wounding Loss Clinics' for GFP department staff and hunters. Hunters learned about the unique properties of steel shot and received individual shooting instruction from an expert. These classes were widely accepted by hunters and currently are conducted by the Department's own highly trained shooting instructor, Mark Grovijahn, Resource Biologist out of Watertown. Today most hunters are confident that any of the nontoxic loads on the market are up to the task of efficiently harvesting game.

No discussion of nontoxic shot would be complete without mention of the Nontoxic Shot Lethality Table printed each year in the South Dakota Hunting Handbook. This Table was created and copyrighted by Tom Roster and offers the hunter proven nontoxic shot loads for waterfowl and upland game birds as well as wild turkeys. The data base is scientific in nature and originates from approximately 20,000 harvested waterfowl, upland game birds & turkeys and serves to guide the hunter in selecting loads that are optimal for harvesting various game species. Hunters also need to pattern test and practice shooting clay targets with the shotgun they normally use for hunting and limit their shooting to distances at which they are proficient. For most hunters, myself included, this means inside of 45 yards. This is the prescription to limit wounding losses to 10% or less.