

COPPER OPPORTUNITIES

Copper ammo emerging as the “bullet of choice” among Minnesota deer hunters

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One favorite tradition among deer hunters is sharing the stories of the hunt following each year’s deer season. This year there are some new and compelling stories emerging from hunters who have switched to copper bullets for deer hunting.

Copper bullets first gained interest a few years ago among hunters of “dangerous game” in Africa because the bullets do not fragment upon hitting a game animal. Since the mass of the bullet is retained, the penetration of the bullet is much greater than for a lead bullet which is more prone to shatter or fragment as it hits an animal, especially if the bullet hits a bone. According to one major copper bullet manufacturer, the penetration of a copper bullet is 28% greater than for a comparable lead bullet. That is important if you are trying to stop a cape buffalo that might otherwise try to hurl you into the nearest baobab tree. It was these weight retention and penetration characteristics that Anoka, Minnesota based Federal Premium Ammunition embraced over a decade ago when they began offering copper bullets options for larger game animal in North America like elk and moose. Ryan Bronson, Manager of Conservation Programs, explained that weight

retention has been a hallmark of Federal’s premium big game bullets, and weight retention has improved with each generation of bullets from the Nosler Partition to the Trophy Bonded Bearclaw to the modern copper bullets. All-copper bullets function a little differently with the nose of the bullet rolling back into four “petals” as the bullet enters its target and the sharp edges of those four petals help in slicing through tissue. In contrast, lead bullets begin to mushroom upon impact and create a blunt front that reduces penetration of the bullet.

So how does copper perform on white-tailed deer, and are copper bullets a good choice for Minnesota’s deer hunters? We questioned eight Minnesota deer hunters who have already switched to copper to get their responses on how copper has performed for them. These persons had hunted deer for an average of 30 years, with a range of 12 to 45 years of deer hunting experience. They had been using copper bullets for 2 to 6 years.

The copper loads used by these deer hunters included:

- 30-06 with Federal 180 grain Barnes MRX copper bullets with a tungsten core.
- .243, .270, and 30-06 with Federal premium “Triple Shock” (TSX) copper bullets,

- .257 Weatherby magnum and .308 Norma Magnum bullets-handloaded,
- 7 mm. magnum and 30-06 Hornady,
- 7 mm. Mauser,
- 20-gauge and 12-gauge shotgun Barnes ballistic-tipped copper sabo slugs, and
- .50 and .54 muzzleloader-copper bullets.

The response by deer when hit with copper bullets was impressive.

"I've killed four deer...with copper bullets. Three of the deer dropped dead on the spot."

"One deer dropped dead in its tracks. One went 20 yards."

"One shot kills are the norm...Considerably superior (to lead)."

"Two deer killed on first hit, no movement...One deer traveled less than 20 yards."

"I can honestly say I've never had any wounding loss with a well-placed shot with copper."

Copper bullets also got high marks for accuracy.

"The copper bullets have been more accurate out to 200-300 yards (at the rifle range) than premium boat-tail lead bullets of the same weight."

"We've had outstanding results with these bullets, from accuracy in sighting in, to almost 100% retention of the bullet recovered from harvested animals."

"I've noticed excellent performance...My shooting for rifle..has been out to 200 yards, and with my shotguns I can accurately place copper sabot slugs out to 150 yards with a scoped shotgun that's designed for high accuracy...My muzzleloader performs easily out to 200 yards with Barnes tipped copper bullets."

"Equal or superior to lead considering bullet remains mostly intact and generally passes through deer."

About how many shells did you fire in conjunction with the deer season: 1) for sighting in, and 2) for taking your deer?

"3 for sighting in and 2 for taking my deer."

"...four to sight in my gun and one to shoot my deer."

"...less than ten to sight in and less than five for deer hunting."

"15 - 25 lead (shells) and six copper shells (3 per gun) to sight in, and two for hunting"

"I shoot 1-2 boxes (20-40 shots) per year for practice and hunting"

"I sight in and target shoot with lead and final check with copper to save money."

Are you concerned about the higher cost of copper ammunition? (A recent check of ammo prices at a major sporting goods store revealed prices of about \$1 per bullet for lower quality lead loads to \$2.50 each for Barnes VOR-TX copper bullets. Copper-coated lead bullets were about \$2 each.)

"Cost is definitely a consideration, but copper bullets are no more expensive than some other premium bullets."

"The price of a box of shells was slightly more than a box of high quality lead cartridges, but factored in the few number of actual shells used to deer hunt, and it was a non-factor in choosing the copper bullets."

"Yes the expense is worth it, as long as the ballistic performance is comparable."

"No."

"I honestly don't know where folks get the "high cost" perception from. At least for rifle and shotgun, that's only relevant if they're buying only the cheapest lead bullets, which usually are not the best performing anyway. Anyone purchasing premium lead bullets and are serious about accuracy and precision, cannot claim that copper is more costly...for the last 3 years running I've purchased my copper factory loads from Fleet Farm and would have spent equal if not more if I had purchased top of the line Winchester, Federal, or Remington lead bullets."

"Definitely worth the cost considering the small number of shells used in a season."

"The biggest obstacle in switching to non-lead for me was finding copper ammunition, which I had to special order." (7 mm. Mauser).

What were your reasons for switching to copper bullets for deer hunting?

"I switched to copper because I don't like lead in the environment, don't like the poisoning of raptors and I don't like lead in my dinner."



“...I switched to nontoxic bullets due to the information from the MNDNR Lead Study, indicating significant amounts of very small (lead) fragments and dust was dispersed throughout the entire carcass and obviously could cause potential unknown lead ingestion during human consumption.”

“...my knowledge of (toxic secondary lead) impacts to wildlife was my primary motivation for switching, but when more information on the exposure of hunters to lead fragments (became available),...and (I learned about) their superior ballistics...I was absolutely sold on copper.”

(From a Conservation Officer in northwest Minnesota): “...I’ve witnessed the effects of lead bullets in bald eagles. Every year for the last decade, I’ve received a call on a sick bald eagle during and/or after the firearms deer season. I’ve sent these birds to the raptor rehabilitation center in St. Paul. Only to find out later that the eagle had died and that the cause of death was from high levels of lead in their system. Living in a larger wilderness area, one of my main concerns is how many of these sick and dead eagles are going unreported and undetected...This last deer season I got the great experience of watching my son harvest a deer. Everything from tracking to watching him gut his first deer was a memory that will last a lifetime. Before we could even drag the deer back to our vehicle, a bald eagle was already “working” the gut pile. Knowing that we had not contributed to another bald eagle ingesting lead was an experience shared by both father and son.”

“...since folks can switch to high-performance, cost effective alternatives to lead, thereby satisfying their needs (for good ballistic performance) and further reducing if not eliminating exposure of wildlife to lead fragments, there is no longer any logical reason not to use copper or other non-toxic alternatives.”

““The reported toxicity of lead and possible ingestion by my family members.”

“Ballistics and lead poisoning.”

“Switched to copper because of concerns with lead in the venison.”

“Lead is a scary chemical!”

Would you recommend copper ammo to other deer hunters?

“I strongly recommend trying the copper bullets.”

“Yes, if they can afford it.”

“Based on performance, cost, and availability for most common rifles, shotguns, and muzzleloaders, I absolutely recommend hunters use copper.”

“Switching rifle loads to nontoxic was a no-brainer for me...”

“Yes.”

Beth Siverhus of Warroad, Minnesota, offered a particularly insightful commentary about her reasons for switching to copper ammo.

“I am a resident of northwestern Minnesota and a hunter of deer and upland game birds. One of my volunteer jobs is that of a licensed wildlife rehabilitator. I began using copper bullets for deer hunting in 2008, after having dealt with two mature bald eagles and one golden eagle suffering from lead poisoning within that year. All three eagles died...I realized that the lead core rifle cartridges I had been using all these years had the potential to sicken or kill eagles...if they were to scavenge on the gut pile left behind, and ingest lead fragments.

The thought of it sickened me, as did my ignorance in not knowing this. Studies had been done, the facts were there, and articles had been published, but I had not read them.

It took holding an injured eagle in my arms, head drooping and gasping for each breath, to get my attention. I hope this is not the case for other conscientious hunters, and that they will choose the option of using copper rifle cartridges for hunting large game...I’ve found the performance of copper ammunition for deer hunting to be excellent. Once you switch, you won’t turn back”

Planning for next season

Considering the positive responses by hunters who have already tried copper ammo for deer hunting, try switching to copper this year. Don’t take our word. Check it out for yourself. Federal Premium Ammunition recently announced a new line of premium copper bullets, the Vital Shok ® Trophy Copper bullet and Trophy Copper shotgun slugs that will be less expensive than their existing line of copper ammo featuring the Barnes TSX copper bullets, but they are also engineered for better expansion.

It appears that the use of copper bullets for deer hunting is a win-win situation for everyone involved. They provide excellent ballistic performance and knock-down power on deer, they do not cause secondary lead poisoning for bald eagles that scavenge on deer gut piles, there is no danger to family and friends from ingesting venison with toxic lead bullet fragments, and if you buy Federal ammunition, it helps support jobs in Minnesota too. 🦌

