Why Shot Material Matters For Waterfowl Hunters

Waterfowl hunting is one of the most popular forms of hunting in the United States, and a large industry has grown up over the past hundred years to help hunters get the best possible equipment for their expeditions.

While this means hunters have a lot of choice, the sheer range of available equipment can be baffling for first-timers. This is especially true when it comes to ammunition.

If you're planning a waterfowl hunt and you want to make sure you bring the best shot, here are a few things you should keep in mind about material composition and its relationship to performance, prey, price, and the environment.

Choose the Right Load for the Right Bird

Probably the first question you need to answer when deciding what kind of shot to buy is what kind of prey you plan on going after.

The kind of load you'd pack to go after wood duck would be a hindrance in taking down a Canada goose and vice versa, so before you set you need to determine what kinds of waterfowl you're likely to encounter.

Experienced hunters will generally want to use dense shot like tungsten super shot when going after larger fowl because it delivers a greater punch and will kill even at distance.

Material Impacts Performance

If you want to get a group of hunters going, simply ask them about their favourite kind of birdshot. With so many factors to consider, and so many different materials and alloys available, there is plenty of room for friendly disagreement, but the debate about shot generally comes down to the pros and cons of density vs. velocity.

While there are those who will swear by high-velocity steel shot, most waterfowl hunters these days prefer heavier, slower loads that offer significantly better penetration and knock-down power at medium and long range, compared to shot made from lighter materials like steel.

There are a few reasons for this:

- Dense shot retains energy for longer
- Denser loads increase lethality over distance
- Shot density is positively correlated with pattern density
- Dense shot is more likely to deliver a clean kill

Following the environmental ban of 1992, hunters have been looking for alternatives to lead birdshot that provide the advantage that comes with denser shot but that don't pollute waterways. Tungsten heavy alloy (WHA), an ultra-dense but non-toxic material, has become a popular replacement among goose and duck hunters in recent years.

Tungsten super shot is made from a blend of high-purity powdered tungsten and other metals like nickel or iron. The mixture is subjected to great degrees of pressure and formed into small pellets, which are then sintered in hydrogen to reduce metal oxides and create a clean surface.

This makes for super dense shot (it actually exceeds the density of lead, often reaching 19.0 g/cc) that performs well under any conditions.

The Price Factor

As we've pointed out before in this article, when it comes to shot, dense loads perform better when bagging waterfowl. So why is it that so many hunting cartridges still use steel pellets?

The simple answer is that steel is an awful lot cheaper than pure tungsten, and amateur hunters who are more interested in the pleasures of shooting than in actually taking home game are attracted to the lower price tag.

If you want quality shot that will ensure a successful hunt, though, you'll need to upgrade the shot you're using, and one of the benefits of tungsten heavy alloy is that it offers density far exceeding lead at a more appealing price-point than pure tungsten.

Non-Toxic Shot is Essential for Sustainable Hunting

As any responsible hunter knows, sustainability is a major concern for the modern sportsman. Hunting is a popular pastime, and its environmental impact needs to be minimized if future generations are to be able to enjoy it as well.

The far-reaching damage lead shot did to animals, humans, and the environment in the late twentieth century is a grim reminder of what can happen when hunters are not careful about making sure the ammunition they use won't do long-term harm to the ecosystem.

Even when environmental regulations don't require you to use non-toxic shot, opting for a clean alternative like WHA is a choice that can help preserve our hunting grounds for generations to come.

Researching ammunition may take time, but it will also ensure you bag the prey you're looking for. Next time you head out to the bayou, make sure you bring dense, non-toxic shot guaranteed to make your hunt a success.