



# CENTERFIRE RIFLE AMMUNITION Created for Performance



*When it comes to choosing the right ammunition for big game hunting, today's sportsman has never had it so good! Here's how to select the right cartridge and bullet for the task at hand.*

It had been a long week, the weather unseasonably hot and the hunting difficult. Still it had been a glorious time in the mountains, the country as beautiful as any you have ever seen and the wildlife was spectacular.

Suddenly, at first light on the last morning, your hard work and patience have been rewarded. In the meadow below are a dozen elk, two of them dandy bulls with long, thick main beams and six points per side. Their breath is frosty in the morning chill as they graze their way toward their dark timber bedding area. At 200 yards they are well within your comfortable shooting range, so you get a good rest, try to control your heavy breathing and pounding heart, and place the crosshairs behind the front shoulder of the lead

bull. As you begin to squeeze the trigger, a little voice reminds you that this will probably be your last chance, a do-or-die situation. It is now that all your hard work and long hours on the practice range are about to pay dividends.

The last thing you need to have happen is for your bullet to fail to perform as it must.

## CHOOSING CENTERFIRE AMMUNITION

Fortunately, today's big game hunters have the finest selection of centerfire rifle ammunition ever offered for hunting. Today's product line includes a variety of bullets designed to perform differently, giving the sportsman a chance at choosing what is, in reality, semi-custom ammo created for whatever animal he is hunting, and in any conditions under which it might be hunted.

Such choices can be confusing, however. How can you make sure you have just the right cartridge in your chamber? The answer is to analyze your hunt, then make an informed choice based on the facts at hand.

## PREMIUM VS. STANDARD AMMUNITION

For many years, the major ammunition companies offered just one standard line of centerfire ammunition. This line-up worked quite well for generations, as it still does today. Then, the standard line featured just one or perhaps two different types of bullets in a limited number of weights. At the same time, bullet manufacturers were improving their products, the result being the first line of custom-class bullets designed for higher weight retention, deeper penetration, and better accuracy than standard bullets. The only way a hunter could use them was to handload his own ammo.

Federal® Cartridge Company was the first major ammo maker to recognize the potential of loading these custom-type bullets in factory ammunition. When their Premium® line of ammunition first appeared, hunters responded like kids at a candy store, gobbling them up as fast as Federal could get them onto dealers' shelves. Federal's first Premium loads featured the legendary Sierra Boat-Tail® bullet,

one of history's most storied bullets.

New from Federal is the Trophy Bonded® Tip. It is built on the same framework as the Trophy Bonded Bear Claw® and features a Polymer tip and boat-tail design for flatter shooting and better accuracy. It combines technologies to become the most complete big-game bullet.

Today, big game hunters still have the choice between standard factory loadings, like the Federal Power•Shok® line featuring the Federal Soft Point bullets, and the Federal Premium line. When it is time to step up to the next level, you cannot beat premium lines of ammunition for consistency, accuracy, and the ability to choose between so many different custom-class bullets.

## THE FINAL DETERMINANT

It is important to note that no single cartridge choice will do you any good if it does not shoot accurately from your individual rifle. While modern rifles generally shoot most ammunition tolerably well, sometimes one specific make of ammunition with a specific bullet design and weight just seems to shoot better than

others. The benchmark test is the three-shot group, fired from a solid rest at a paper target at 100 yards. Ideally, your rifle/cartridge/bullet combination should consistently put those three shots into at least a 1-inch cluster. Many combinations will shoot tighter groups than that. For some close-range big game hunting—where shots rarely, if ever, exceed 100 yards—a 2-inch group is fine. Generally speaking, however, the tighter the group, the better off you will be.

Ideally, you will analyze your upcoming hunt, then choose the bullet you think will best do the job for you under conditions that might be less than perfect—a tough shot angle, a longer shot than you'd like, etc. Buy a box of ammo that fills the bill, head to the range, and see how it shoots. If it proves accurate enough for the task at hand, sight in with it and make some more room in your freezer. You've just taken a big step toward a successful big game hunting adventure.



## CHOOSING THE RIGHT BULLET

Modern big game hunters can choose from a wide variety of different bullets designed to do different things down-range. Selecting the proper bullet for the task at hand is a very important part of preparing for your hunting trip. Basic bullet types include:

**Premium Solid Bullets:** Designed to not expand at all, but instead drive as deeply as possible into the largest, toughest, most dangerous animals on earth like cape buffalo and even elephant, but can also be used for small African plains game. When you're looking for a premium solid, look no further than the Trophy Bonded® Sledgehammer® Solid.

**Premium Soft Point Bullets:** Designed for maximum penetration and controlled expansion, these bullets are designed for hunters pursuing large game like elk, moose, and even dangerous game like grizzly bears and cape buffalo. Examples include the Trophy Bonded Bear Claw®, Trophy Bonded® Tip, Barnes® Triple Shock™ X-Bullet™ and Nosler® AccuBond®.

**Standard Bullets:** Designed for reliable penetration and consistent expansion, these bullets are good for accurate long-range flight and use on medium to large game animals, including elk, moose, and all deer species. Examples include the Speer® Hot-Cor® and Soft Point.

**Rapid-Expansion Bullets:** Designed for extreme long-range accuracy and rapid expansion, these bullets are best used on small to medium big-game animals like pronghorn and deer. The Nosler® Ballistic Tip® is a superb example.

**Varmint Bullets:** Designed for ultra-accurate shooting and explosive performance on varmint-sized animals like ground squirrels and prairie dogs, the Speer® TNT®, the new lead-free TNT® Green and Nosler Ballistic Tip are good choices.

All the above bullets can be found in Federal's full line of Premium and Standard centerfire ammunition.

## TRAJECTORY, BULLET FLIGHT, AND SIGHTING IN

Trajectory is the arch of a bullet from the firearm's muzzle. Bullets appear to rise because the firearm's barrel is angled slightly up. After it is fired the bullet actually crosses the line of sight twice—once going up near the muzzle, and again going down through the downrange zero. About halfway between the muzzle and the rifle's zero range, the bullet will reach its highest point above the line of sight. This is often referred to as a bullet's midrange trajectory.

In addition to the angle of the barrel—determined by the firearm's sight setting—several things determine a bullet's trajectory, the two most important being velocity and bullet design. Low-velocity cartridges with round-nosed bullets, for example, have a much higher trajectory than high-velocity cartridges with spire-point or spitzer bullets.

When sighting in, most big-game rifles are sighted in so the bullet strikes two- to three-inches high at 100 yards, the exact placement dependent on the specific cartridge and/or bullet combination, the game to be hunted, and the terrain over which it will be hunted. Rifles are sighted in to print higher when the anticipated shots are expected to be over longer range, such as when hunting mule deer or pronghorn in open western plains country or mountain terrain. When shots are anticipated to be short—hunting whitetails in thick woods, for example—the rifle should be sighted in to print closer to dead-on at 100 yards.



**FEDERAL PREMIUM**  
AMMUNITION

EVERY SHOT COUNTS

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