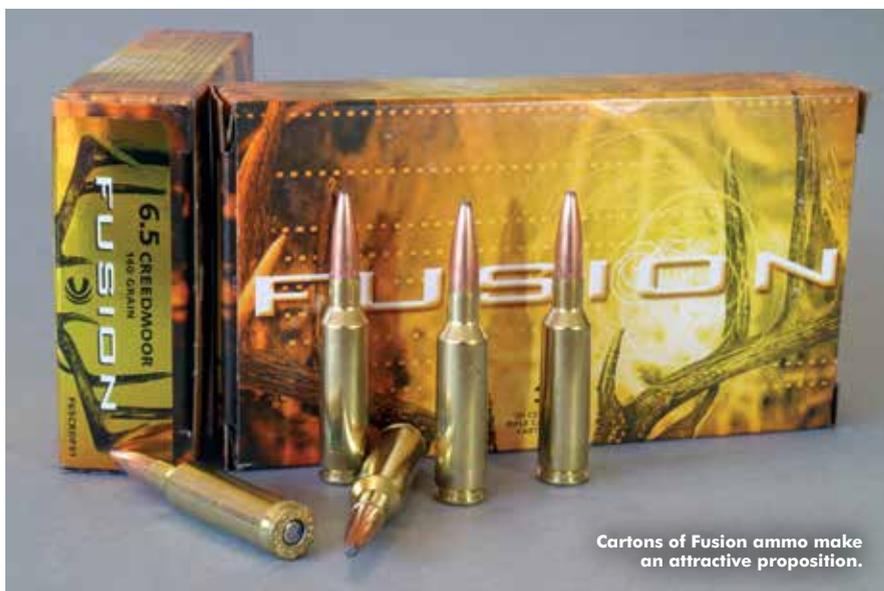


Fusion deer ammo from Federal

by Rod Pascoe



One of the factors determining whether you load your own ammunition or use commercially produced factory loads is the amount of ammo you actually go through in a season. Those who do not use enough to justify setting up a reloading outfit, buying all the components and devoting the time required, usually opt for factory-loaded ammunition, of which many brands and bullet weight configurations are available.

In 2005 the Federal Cartridge Company released a new ammunition brand - Fusion. The reason for the separate branding is that the new ammunition is loaded with bullets made by Federal's proprietary molecular-fused jacket technology. This is an electrochemical process and according to the Fusion literature: "The jacket is applied to the core, one molecule at a time, to totally eliminate separation and maintain mass integrity."

The core of the Fusion bullet is a pressure-formed lead alloy and the jacket is pure copper. In conventional jacketed soft-point projectiles, molten lead is poured into a pre-formed copper jacket, the top of which is then shaped to a point. With the bonded bullet, as I understand it, copper grows onto a pre-formed lead slug. The tip of the bullet is skived to expose the top of the lead core and, similar to a lead soft-point, promotes initial expansion. Fusion's literature also claims to have a perfect centre of gravity and high ballistic coefficients. The boat-tail design also increases the bullet's ability to shoot flat and resist wind. The Federal website also states that deer is the target species for their new technology, consisting of:

- A. Skived tip: Provides long-range expansion potential plus short-range toughness. No conventional technology delivers this combination.
- B. Pressure-formed core: Achieves

combination of expansion and strength never before available in a deer rifle projectile.

- C. Molecularly-fused jacket: Totally eliminates component separation, unlike other conventional methods. Uniform deposition builds balance, stability and accuracy.
- D. Optimised boat-tail profile: Boosts aerodynamic efficiency for extreme accuracy at mid to long range. Provides enhanced versatility and reliable terminal performance.

Nioa, the Australian distributor for Federal, provided SSAA National with some Fusion ammunition in 6.5 Creedmoor with a 140-grain bonded projectile to review.

Federal introduced its new 6.5 Creedmoor Fusion hunting ammunition in 2016. Marketed specifically to deer hunters, the bonded bullet technology is claimed to eliminate component separation. While the 6.5 Creedmoor is a relatively new cartridge, it has become a favourite round for long-range target shooters. More recently, hunters are discovering its attributes - and for good reason. See the *Australian Shooter* September 2016 article on 6.5mm cartridges.

The 6.5 Creedmoor can be a devastating hunting round - especially when loaded with hunting-specific bullets such as the 140-grain Fusion that is claimed to provide deep penetration and great expansion, while holding together and retaining nearly all of its original weight. The Fusion bullet, I believe, has a wider application than just deer. I had a chance to use Fusion ammunition in .308 Winchester with 150-grain projectiles on a goat hunt a while ago, although, at that time, I was not thinking about reviewing the ammunition

and therefore I was not taking notes. Nevertheless, the ammunition performed well and all animals fell instantly to a single shot.

The new 6.5 Creedmoor Fusion round is accurate. I tried it out during a range session, using my Ruger M77 Mk II topped with a Weaver T36 target scope. This is a very accurate rifle that produced excellent results with every load tried. Of course each rifle is an individual and your results may vary.

On a really blustery day I planned to shoot five-shot groups at 100m. As it was so windy I brought some of my target ammo to use as a 'control' - to compare a dedicated target load under the same conditions. That load was 36 grains of ADI Benchmark 8208 behind a 123-grain Lapua Scenar moly-coated bullet.

I had no trouble getting three or four shots to group at a tad over 1/2-a-minute of angle (MOA). But on every attempt, my fifth shot tended to open the group out to almost 1 MOA. Whether this was the wind

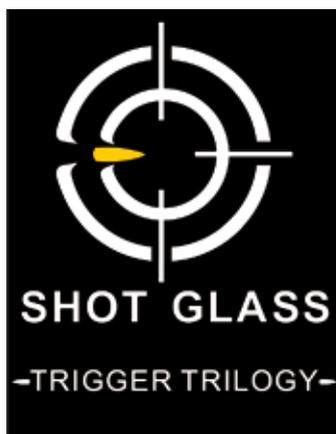


or the barrel heating up, or a combination of both, I don't know. However, I considered MOA or just under quite acceptable for factory loads in those conditions.

The recoil of the Creedmoor is fairly mild. It's a little heavier than a .243 Winchester but definitely lighter than a .308 Winchester, even in the Ruger M77 Mk II that weighs in at 5.4kg all up. While all this

might sound like a plug for one of my favourite cartridges, I believe the 6.5mm projectile is under-rated as a ballistic high-achiever.

Federal measures the muzzle velocity of the Creedmoor at 2750 feet per second (FPS) with a 24" barrel. Using a chronograph with the muzzle approximately 2m away, five rounds of Fusion averaged at 2806fps through my 28" barrel; standard deviation was just 16fps. With that kind of velocity, and sub-MOA accuracy at 100m, Federal's 6.5 Creedmoor Fusion should be effective on deer-sized animals out to 300m and beyond. The advertised muzzle energy is 2351ft-lb; but, I achieved an impressive 2448ft-lb with my rifle. The overall result was that the Fusion ammo produced a respectable group and consistent velocity under the windy conditions on the day. I believe this is an impressive beginning for the new cartridge.



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'First Shot'
Copper



'Silver Bullet'
Silver



'Au-Struck'
Gold

Fusion deer ammo from Federal

The beauty of this Fusion/6.5mm Creedmoor combination is that it gives young and recoil sensitive shooters an easy shooting and reliable deer set-up. But the Fusion line of ammunition is about a lot more than just the 6.5mm Creedmoor. Fusion ammunition is offered in all of the popular calibres. At the time of writing, Fusion rifle ammo is available in the following calibres and bullet weights, with more loads expected to be added in the future:

.22-250 Rem 55gr	.30-30 Win 170gr
.223 Rem 62gr	.308 Win 150gr
.243 Win 95gr	.308 Win 165gr
.25-06 Rem 120gr	.308 Win 180gr
.260 Rem 120gr	.338 Fed 200gr
.270 Win 130gr	.338 Win Mag 225gr
.270 Win 150gr	.357 Mag 158gr
.270 WSM 150gr	.44 Mag 240gr
.280 Rem 140gr	.454 Casull 260gr
.30-06 Spr 150gr	.45-70 Govt 300gr
.30-06 Spr 165gr	.460 S&W 260gr
.30-06 Spr 180gr	.500 S&W 325gr
.300 AAC Blackout 150gr	.50 AE 300gr
.300 Win Mag 150gr	6.5x55 Swed 140gr
.300 Win Mag 165gr	6.5 Creedmoor 140gr
.300 Win Mag 180gr	7mm-08 Rem 140gr
.300 WSM 165gr	7mm Rem Mag 150gr
.30-30 Win 150gr	7mm WSM 150gr



The bonded bullet - before and after.

From the list you'll see that it also includes some heavier handgun loads. The cost of a box of 20 rounds of 6.5 Creedmoor ammo was \$49 at my local gunshop. Other calibres are much the same. As an example, I found .30-06 in for \$49 and .308 Winchester for \$45 per box.

Summary

Federal's goal was to offer a line of ammunition using a bullet that would drive deep, expand wide and hold together. The creators appear to have the balance right with their Fusion product; moderately priced ammunition with very acceptable accuracy. Fusion ammunition bridges the gap between standard and premium hunting ammunition. If you hunt with factory loaded ammunition and have not tried Fusion cartridges in your rifle, you should give them a go. ■

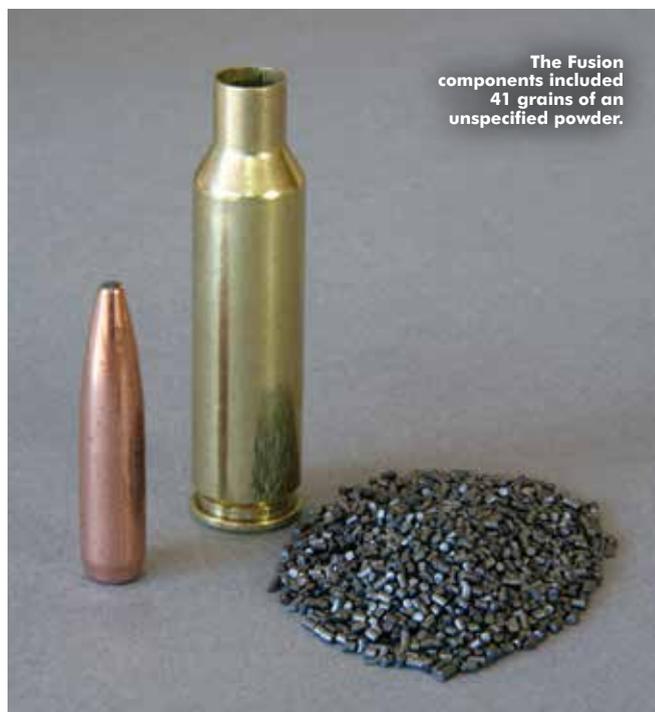
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The Fusion components included 41 grains of an unspecified powder.