

The Quest for Accurate .22 Long Rifle Ammo

By [Randy Wakeman](#)

From time to time I enjoy revisiting .22 rimfire ammo offerings, to see what they do and what is new. For a long time, Federal 36 grain copper-plated hollow point .22 long rifle ammo has been my standard fare. It is bargain-priced, shoots well in most everything, cycles my semi-autos without problem, and has been explosive on hundreds of rabbits and similar size small game.

I bought so darn much of it that it will continue to be the standard fodder around here for some time. But, there is better ammo if you are willing to pay a higher price. For the record, this is essentially Federal load #730, which is sold in bulk. I try to follow the name changes as best I can, but I'm not always able to keep up. As far as I know, this is currently the Federal "Champion Target" #745, rated at a MV of 1260 fps.

Part of the fun, part of the picture of rimfire shooting for me is the economy. I've seen some of the "match" .22 LR sell for twenty-five cents a round or so; too much for my purposes. When I shoot .22's, I like to shoot a lot. As a broad generality, the 1200 fps (and lower) muzzle velocity ammo has long been considered the "accurate" stuff. The reason for that is the yaw-inducing turbulence when a bullet is flying at trans-sonic velocity. It seems to be generally true, but not always.

Some shooters automatically dismiss the high and hyper velocity ammo for this reason, but that is not always wise. Ammo, and gun preferences, differ. For example, CCI Stingers have delivered excellent groups in some rifles. On the other hand, I recently tested the Federal hyper velocity Spitfire load (31 grain bullet at 1500 fps) and it shot horrifically bad in everything I tried.

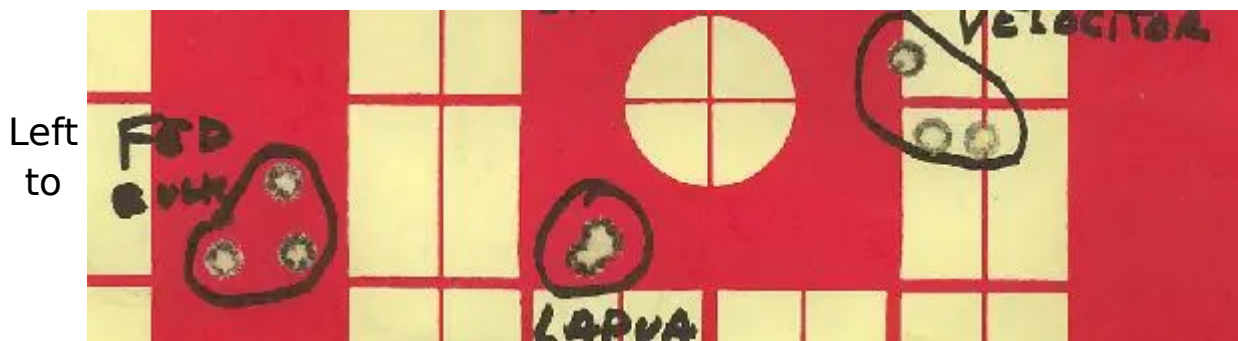
Surprisingly, the Remington-Eley 40 grain Target Rifle #RE22T actually shot worse than my Federal 36 grain bulk ammo in my rifle. That was

a waste of a few pesos. The Remington-Eley rounds were also smoky and stinky.

Sources have reported that Eley changed their priming compound several years back to be "less toxic." However, the new mixture causes about twice the amount of steel etching per shot. The notion of wearing out your barrel twice as fast with Eley ammo than with other brands is not appetizing. Kate White, marketing director of Eley, feels that the notion of Eley ammo wearing out barrels is incorrect. Kate writes, in part, "We have had enquiries before about the difference in Eley ammunition, and that it wears out the barrel. This is a rumour put about to stop people buying Eley ammunition, as their ammunition is not as accurate. Despite Eley's claim that nothing has changed since 1980, their patented primer compound using a high proportion of ground glass was not awarded until 1994-1996 in Great Britain and the United States. See: United States Patent # 5,538,569 (July 23, 1996).

Two rounds in this round of testing were notable: CCI's "Velocitor" and Lapua "Speed Ace." Though certainly more than the cent and a half price per round ammo, they are far from the most expensive rimfire ammo around. For the performance, I think they are well worth their price.

These consecutive groups were fired from the Savage MK.II-BV AccuTrigger rifle. The range was 40 yards and there was a 7-12 mph crosswind.



right: Federal 36 gr. bulk HP ammo, Lapua Speed Ace, CCI Velocitor.
Photo by Randy Wakeman

You can cover all the groups with a dime, with the Lapua Speed Ace delivering the smallest groups. I duplicated all the shooting with a vintage Marlin 39A, and again the Lapua Speed Ace shot the best. The Savage MK.II-BV Lapua group measures .049 in.

The Lapua Speed Ace was spectacular. Not only did it give blazing accuracy at 40 yards as shown above, it gave a sub 1/2 in. four-shot group at 100 yards the same day. Rather than copper-flashing, the Lapua rounds have a waxy, tacky "heavy conical" type bullet lube. Not particularly cheap, these Lapua Speed Ace rounds are still a very long ways from the ultra-premium level of match ammo. It is an amazing performer and makes me want to try more Lapua ammo.

The CCI Velocitor is billed as the fastest 40 grain .22 LR round available, and did quite well. Again and again, I had two holes either touching or close to touching, then threw the third shot off by a small amount. It did the same thing with the Marlin 39A. Why, I really don't know. For a 1435 fps 40 grain .22 and at a reasonable price to boot, it is well worth a try.

The next round of .22 Long Rifle ammo testing used three rifles; Marlin 39A Golden, Ruger 10/22, and the Savage MKII-BV AccuTrigger bolt-action. For this continuation of rimfire ammo testing, CCI Quick-Shok, American Eagle copper-plated high velocity HP, Fiocchi 22 LR Ultrasonic, and Lapua .22 LR Hollow Point ammo was used.

The accuracy results were consistent across the board. At 40 yards, the CCI Quick-Shok finished last. The econo-priced Federal was next, not performing as well as the bulk milk-carton Federal 36 grain previously tested.

The Fiocchi Ultrasonic was quite a surprise, putting nine of ten shots in the same hole at 40 yards from the Savage MK-II BV. This is 40 grain 385 m/sec. copper-plated round nose ammo. It was remarkable at 40 yards; perhaps why I'm remarking about it? The Lapua 36 grain Hollow Point ammo grouping was, on the average, a very slight amount better at 40 yards.

Out at 102 yards, the picture changed dramatically. The most accurate rifle was the Savage, so it got to do all the shooting. The Fiocchi ammo

opened up past an inch and a quarter (excellent results for any .22 hunting rifle/ammo combination), while the Lapua 36 grain HP did *spectacularly*, shooting several groups in the .25 inch range.

As far as I'm concerned, this is spectacular accuracy from a bone-stock factory .22, and ammo that is not the highest "Match Grade." Lapua makes their Midas series for that. A 3-9x Sightron Scope was used, a fine optic but hardly 36X dedicated target glass.

It seems to me that there is a trend developing, which is that Lapua is the most accurate .22 LR rifle ammo. Of course, all rifles are individuals and you may get different results in yours. That is why any .22 firearm should be tested with a variety of ammo before selecting a standard load.