Polywad's NEW Gram Crak-R Loads

by Marshall R. Williams

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I first became acquainted with the name Polywad when I did some research for an article on shotgun patterns taken from tests that had appeared in the *American Rifleman* (see September 1996 "Shotgun Patterns In The American Rifleman"). The NRA has long graded patterns using a 30" circle with a concentric 21.2" circle inside. The significance of the 21.2" circle is it contains exactly one-half the area of the 30" circle; thus, it is easy to check central thickening of different loads.

A .410 Gram Crak-R disassembled — plastic case, 13.5 grains of ball powder, the most unusual "Bio-Wad" — basically a fiber cup with a "B-card" in the bottom — 13 grams of hard 7½s intermixed with plastic buffering material and the little overshot wad (or "B-card").

Of the approximately 250 patterns I reviewed for that article, only one had an equal distribution of shot in both circles — a pattern made using a Polywad Spred-R insert (see "Know Your Wads," June 1990). At the time, I had a very tightly choked German drilling that was quite recalcitrant about opening its uncommonly tight patterns when using my usually effective post wads. I tried a package of the Spred-Rs and, *voila*, another full-choke skeet gun via load manipulation. Since then, I have been a fan of the Polywad products.

Polywad (www.polywad.com) is a small company that specializes in exploiting niche markets, such as 2" and 2½" shells, spreader loads and low-pressure shells for older guns. New products include door-breaching shells for Uncle Sam's military shotguns and, perhaps, a deer load for the 28 gauge in the future. Recently Jay Menefee, CEO of Polywad, and I discussed one of his newer smallbore products, an unusual shotgun shell called a "Gram Crak-R." Naturally, he praised it lavishly; naturally, I expressed a certain reserve, so he invited me to try a couple boxes.

Aday or two later, a small package showed up at my house containing a couple boxes of interesting .410-bore and 28-gauge shells. The .410s came in plain white boxes marked "Samples, 13 GRAM CRAK-R, #7½, 2½" .410." The 3" .410s were also in plain white boxes marked similarly, but the shot charge was 17 grams. The 28-gauge Gram Crak-Rs came in a plastic bag. Unfortunately, at that time, I found myself in the embarrassing situation of not owning a 28- gauge gun, a shortcoming I was soon to remedy. I did not shoot the 28s on my first outing but noted they were good- looking examples of modern 2¾" plastic shotgun shells with folded crimps.

Both lengths of .410s used roll crimps and the same red plastic shell. Roll crimps are still seen on .410 shotgun shells. I like them and have shot many thousands of roll-crimped shells, both factory and handloads, in both .410 and 12 gauge. Contrary to the folklore and advertising of another time, I never noticed a bad pattern I could attribute to the roll crimp, nor any bad patterns at all with roll-crimped shells. In passing, I would observe roll crimps require an extra component and slightly more time and effort than folded crimps. In compensation, they offer a slight but often significant advantage — they require less room than folded or pie crimps, so roll-crimped cases have slightly greater capacity.

As soon as I could get out, I went to the skeet range and tried the new .410 shells. I also took along some of my .410 skeet reloads with ½-ounce of No. 9s. The Gram Crak-Rs were loaded with No. 7½ shot. Since 7½s have about 60% fewer pellets than shells loaded with 9s, the patterns were noticeably sparser. For comparison and just because they were handy, I also took along a box of Rio 3" shells loaded with 11/16-ounce of 8s.

I had not been shooting skeet well (not enough practice), so I was not optimistic about the results. I was surprised. Using a pretty, little Beretta 687 EL Gold Pigeon .410 with

Skeet and Improved Cylinder chokes, I shot my best round of the day with the 2½" Gram Crak-Rs, beating my old, reliable handload with ½-ounce of 9s by a single target.

Not long after that outing, I obtained a pair of Remington's smallbore 870 Wingmasters, one in .410 bore with fixed Modified choke and the other in 28 gauge with Rem-chokes. When I had a chance to go skeet shooting, I took both guns along with Gram Crak-R shells in both gauges. In order to permit some sort of reasonable comparison, I also took along a 12-gauge Browning BPS with a Skeet tube. This time, I shot more consistently than on the previous outing and got a 23x25 with each gun. I shoot skeet so infrequently my swing is always a bit jumpy, so I felt the Gram Crak-Rs did very well. Also, since my shells were loaded with shot larger than 9s — 7½s in both Gram Crak-R loads and 8s in my 12-gauge loads — the breaks were extremely positive. In fact, the 28-gauge shells seemed to hit targets as hard as the 12 gauge. It just pulverized targets and left me thinking this shell would be ideal for bird hunting, especially in pastures where plastic wads might cause a problem for the cows. (More on the wads later.)

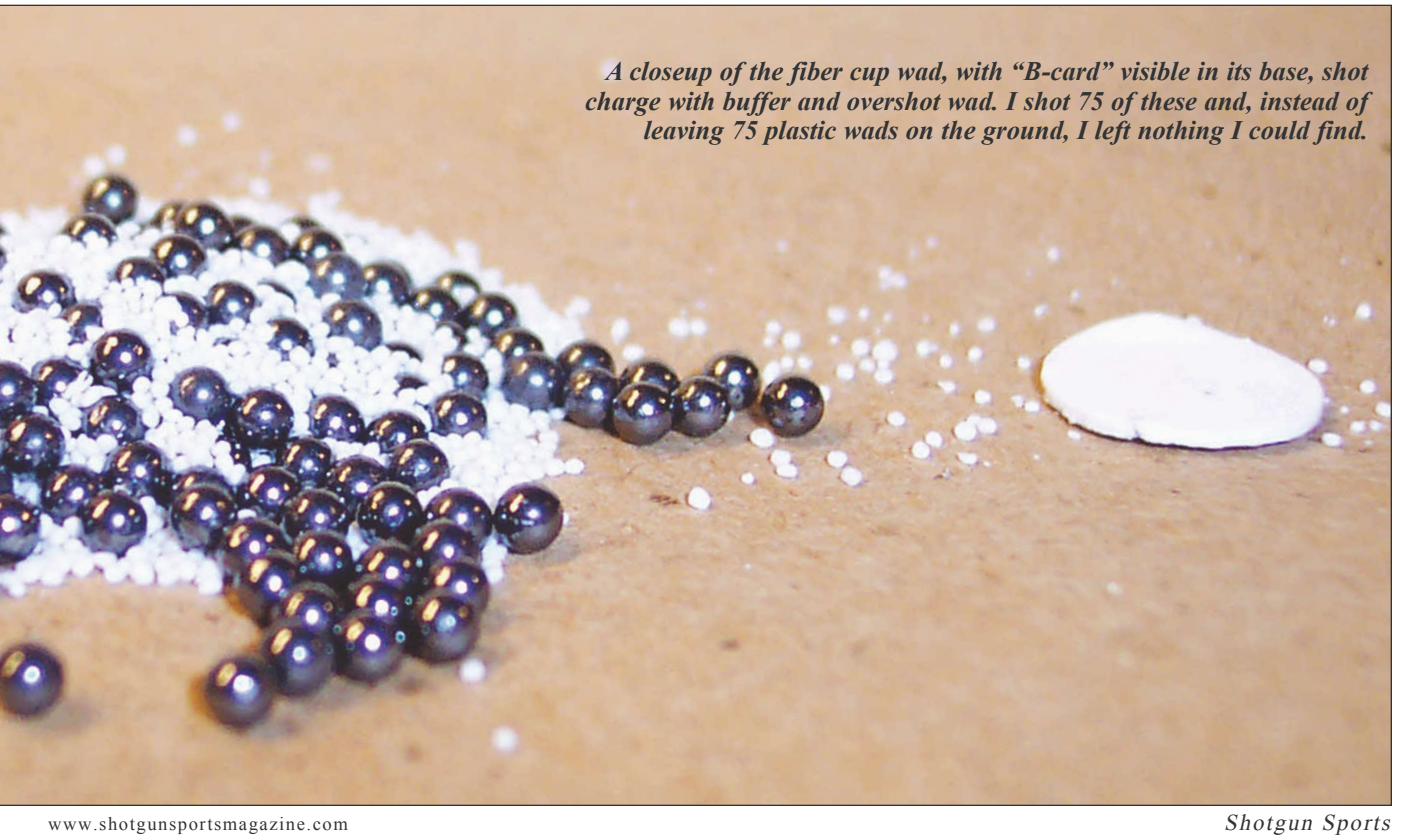
I never pattern a load before I shoot it on targets — too much potential for psychological problems, I believe — but I later patterned the Gram Crak-Rs with the little Beretta. I used a Cylinder and Full choke tube to see whether either end of the choke spectrum would make a noticeable difference. For comparison, I also patterned some Federal 2½" factory shells loaded with ½-ounce of 7½s and the conventional plastic shotcup. All patterns were just about what one should expect, and nothing jumped out and grabbed my attention.

I disassembled one shell to see what was inside. The overshot wad was a plain, white-cardboard wad approximately .028" thick. The payload consisted of hard 7½s integrated with a buffer material consisting of tiny plastic spheres. Buffers have been around for a long time but usually see regular use only in big-bore shells of either premium buckshot or lead-shot turkey loads, uses requiring close patterns of large shot. The object of the buffer material is to ensure shot stays rounder and flies straighter. It does this by preventing the pellets from being squeezed into funny shapes by rubbing together under the extreme pressures that occur in a .410 chamber. The buffer surrounds the shot and fills all the interstices between pellets with a material that does not compress easily and, so, pads the shot. Applying buffer to small shot is not entirely new, but neither is it a common practice. It also adds a step to the loading process.

The total weight of shot and buffer was approximately 214 grains, which is very near ½-ounce. I did not try to separate the shot from the buffer, so I cannot say how much of that weight was buffer, but it couldn't be much. The box and advertising said it held 13 grams of shot, which is about 197 grains, so my guess is the buffer made up the rest.

The component Polywad calls its "BioWad" deserves special attention. I have never seen anything like it, and I have seen one or two things in my life. Basically, it is a short, cup-shaped bit of thin (less than .030" thick) fiber material that looked a lot like cardboard but wasn't. The whole thing was about .4" long and formed a perfect hollow cup. The bottom was reinforced by what looked like one thin overshot wad but may have been two. The actual thickness of the material in the bottom, the material separating the shot from the powder, was no more than .10". The bottom of the BioWad was rounded off on the edges, exactly the opposite of the cupped overpowder section of a typical plastic .410 shotcup.

The powder charge was 13.5 grains of a fine-grained ball powder. While I normally would not speculate what an unknown powder might be, this one probably would not be hard to guess. The primer was a common 209 shotgun primer with copper battery cup. The case consisted of a lightly ribbed red-plastic tube with a separate red-plastic basewad. The basewad was the same color as the case and, at first glance, I thought the case was one-piece. The brass-



A closeup of the fiber cup wad, with "B-card" visible in its base, shot charge with buffer and overshot wad. I shot 75 of these and, instead of leaving 75 plastic wads on the ground, I left nothing I could find.

A very good .410 pattern for 13 grams of 7½s, and it proved very effective on skeet (although 9s probably would have given 70% more hits).

colored metallic head was magnetic, so I presumed it was probably steel.

I chronographed the Gram Crak-Rs and found the velocity was quite high, just over 1,300 f.p.s. That is about 100 f.p.s. faster than the standard .410 skeet load and equals the best sporting clays .410s. As noted at the beginning of this article, I had no 28-gauge gun handy when I got these shells, but soon after I bought a brand-new Remington 870 in 28 gauge and immediately tried it with the new shells. I broke 23x25 at skeet. The Gram Crak-Rs have a high velocity and the 7½s obliterated every target I hit. For comparison, I also tried the 3" Gram Crak-Rs with 7 grams of shot, and the results were the same. I think these would make very good quail loads, especially for those areas where landowners object to plastic wads being left on the ground.

Polywad has taken a novel approach and come up with a very good shotgun shell that leaves no plastic wads in the field. If they were loaded with No. 9 shot, they would be a good choice for skeet; however, I believe inserting the buffer may be less practical with the smallest shot. On its website, Polywad had this to say about the Gram Crak-Rs: "Buffered, BioWad, non-Spred-R loads available in .410, 28 and 12 gauge. Provide target-smashing power at long ranges like never believed possible with such tight patterns and retained pellet energy. The 36 Gram Crak-R with No. 7½ shot is superb for flyer shooting and Helice competitions. With 6s, it would be unsurpassed for long-range pheasant hunting. The 28 Gram Crak-R with 7½s is the finest shell for long-range sporting clays and F.I.T.A.S.C." I would add the .410 Gram Crak-R ain't bad, either. Check them out if you are interested in unusual and good-performing smallbore loads. **SS**

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