

## Preparing for Africa...

# Choosing Dangerous Game Bullets

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Shortly after returning from my first trip to Africa, I decided to go again. This time however, I wanted to hunt dangerous game and specifically the notoriously tough Cape buffalo. One of the first tangible moves toward that end was my choice of rifle. I have always liked what I have heard about the venerable .416 Rigby and after speaking to several hunters experienced with M'boyo I was convinced it was a solid choice. I then bought a Ruger no. 1 and topped it with a Zeiss 1.75-5.5X scope.

The next series of decisions proved more difficult and time-consuming than I first imagined. You see dangerous game rifles need to shoot two bullets equally well. To be exact, the rifle needs to be zeroed for both a solid *and* expanding bullet. To make this process easier, I decided up front to use a Barnes 400gr. Monolithic for my solid. Now all I had to do was find an expanding bullet to pair with it. Of course, precise grouping between any two types of bullets cannot be the only criteria and so the ideal bullet would also need to have high weight retention and good penetration.

My selection of test bullets included four renowned offerings each weighing in at 400gr.: the A-square Dead Tough soft point, the Swift A-frame, the Barnes Triple-Shock X-bullet (TSX), and the Woodleigh Weldcore.

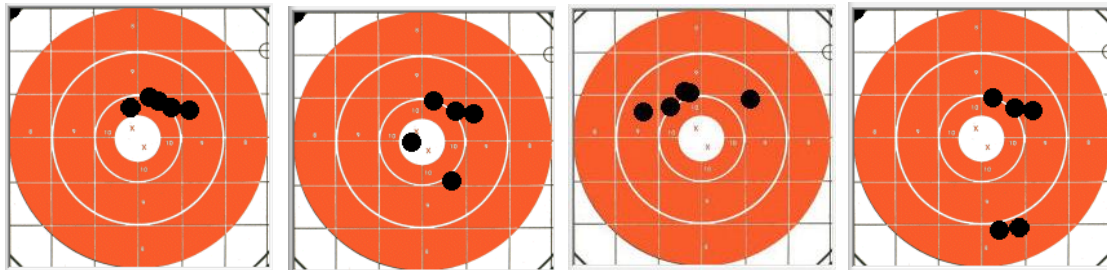


*The expanding bullets used in this test included the A-square Dead Tough soft point (UL), the only factory load test, the Swift A-frame (UR), the Barnes Triple-Shock X-bullet (TSX) (LL), and the Woodleigh Weldcore (LR)*

Using Norma brass, I loaded 10 rounds with each bullet backed by 92.0gr of H4350 and W-W large rifle magnum primers (note: A-square factory ammo was used for its test and so its load details were unknown, albeit different than the load used here). I then headed to the shooting range to do some testing from the bench. Using identical targets and a hold dead-on the bull's-eye from 100yds, 3-shots were fired with each type of bullet. Twenty rounds later and the tests were complete and it was time to analyze the results.

**Precision**

The bench shooting exercise was a test of precision in that I was not interested in which bullet fired closest to the bull (that can be adjusted when I re-zero the rifle), but which set of bullets fired closest to my choice of solid, the 400 gr. Barnes banded. The results of this 15-shot marathon were surprising as the underdog –the only factory ammo used in the test (the A-square Dead Tough soft point) and the load least similar to the Barnes solid— revealed the best group in relation to the solid.



Results of 6-shot groups using Barnes banded solids (3) and (l-r) A-square Dead Tough soft points (3), Swift A-frame bullets (3), Barnes TSX (3), and Woodleigh Weldcores (3). Note: precision statistics were calculated using 5-shot groups.

Barnes banded solid and:	Mean radius	Mean spread	Extreme spread	Median spread
A-Square Dead Tough	0.399	1.073	1.747	0.966
Swift A-frame	0.787	1.628	2.289	1.648
Barnes TSX	0.665	1.541	2.884	1.485
Woodleigh Weldcore	1.402	2.372	3.456	3.133

To test the terminal capabilities of each bullet, OSB penetration boxes were constructed. While they may have looked like feed troughs, each 48” long box held plenty of firmly packed, moist soil to absorb the energy of the .416 Rigby as quickly as possible. Back at the range, one representative of each bullet was fired into the box from 10yds. and after all four rounds were fired, the box was emptied and the remains of each bullet sifted from the soil noting relative penetration of each retrieved bullet during the process.

**Penetration**

The penetration test results are straight forward enough, and again, the A-Square Dead Tough soft point comes through on top. Note: the Woodleigh Weldcore was not retrieved but instead only fragments of the bullet were found.

	Penetration (inches)
A-Square Dead Tough	24”
Swift A-frame	16”
Barnes TSX	18”
Woodleigh Weldcore	n/a

I am not going to claim that my penetration test realistically replicated penetration in a Cape buffalo, or any animal for that matter. Rather, this test was more of a stress test as dense, moist soil is a very difficult medium for a bullet... heck, that’s why sandbags are used to fortify machine gun nests. The results then

are legitimate and tell us a great deal about the penetration capabilities of each bullet *relative* to the capabilities of the other bullets tested.

**Weight Retention**

Once home, I thoroughly cleaned each bullet retrieved from the penetration box using a high-pressure air hose. The bullets were then weighed and measured for their maximum cross-sectional diameter. To fully appreciate these results takes a bit of study. Specifically, one needs to look closely at the A-Square and Barnes TSX and take note of first of the existing base. The prominent base suggests these bullets will tend to travel straight within the buffalo and this should be advantageous.



Once again, the A-square Dead Tough soft points fared very well especially when one looks at the expansion achieved by these bullets (215%). The only troubling statistic is the A-Square’s weight retention as this lead core bullet lost nearly ¼ of its weight.

	Retained weight (gr)	% Retention	Expanded size (in)	% Expansion
<b>A-Square Dead Tough</b>	303.7	76%	0.896	215%
<b>Swift A-frame</b>	327.0	82%	0.834	200%
<b>Barnes TSX</b>	394.7	99%	0.817	196%
<b>Woodleigh Weldcore</b>	--	--	--	--

So what can be learned from these tests? First, most of the bullets faired quite well throughout this torture test. Second, we have two real contenders for top bullet, the A-Square Dead Tough soft point and the Barnes TSX. Which one will I ultimately choose to accompany me in Africa...I am not telling.