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I am having trouble understanding what the term “dram equivalent” means on my boxes of shot shells. Are more drams better than fewer drams? I have some boxes with 3 drams printed on it and some that say with 3.5 drams. They are 1 1/8 ounce loads.

Joshua Knight, Gold Coast QLD

The “Dram Equivalent” term when used in shot shells is simply a measurement of comparison. It compares the charge of black powder that was used in yester year with the amount of modern smokeless gun powder that is loaded today to give a similar result. For instance when you see the term 3 dram equivalent on a modern shot shell box what this is actually telling us is that the shot shell is loaded with enough powder to be equivalent to 3 drams of black powder. It certainly does not mean it has 3 drams of smokeless powder inside each cartridge. That would equate to a small bomb. It should be noted that not all manufacturers print the dram equivalent on packaging boxes these days. It is not a legal requirement. Today we measure our modern gun powders weight with the term “grains”.

You may well ask why doesn't the manufacturer of the shot shell simply print the amount of grains that each cartridge is loaded with on the box instead? In short this probably would open a whole new can of worms as each shell is often loaded with a different blend of powder requiring a different charge weight. There are some things ballistically that are best left trusted to the experts.

Your 3 dram 1 1/8 oz (32 gram) shot shell will generally have a velocity of approximately 1200 feet per second (I will let you make the metric conversions, but many shot gunners still relate their ballistic comparisons in imperial measurements) and for each 1/4 of a dram equivalent that the powder load is increased about 50 feet per second of velocity is gained. This can vary obviously with a number of factors, but this rule of thumb is generally a good guide. For those with good memories “Winchester” had a great line of Target Loads released in the 1970's called 300, 325, 350 and 375's. These were simply named from their dram equivalents being 3, 3 1/4, 3 1/2 and 3 3/4. I can remember the black case 375 being the shell of choice for many years in the top or second barrel of some great shooters. The common phrase that “they killed at both ends” was often heard relating to the fact that the shell hit the target hard and hit your shoulder even harder.

In answer to your second question Joshua, no, more drams does not necessarily mean better. As long as the same shot charge is used it simply means the bigger the dram the faster the shot will leave the barrel. Faster can mean in many cases worse, especially when actual pattern performance is measured on patterning paper at 40 yards. Shot shells that are “over cooked” with too much powder can often throw wider spreading patterns with a full choke than can be achieved with an open cylinder thus negating any extra hitting power by enormous gaps within the shot pattern. Generally most manufactures will publish ballistic data for those reloaders who are trying to duplicate the factory loads.

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