



# Sighting with a Muzzleloading Rifle



Muzzleloading projectiles function at a lower velocity and have a higher trajectory curve than modern ammunition. To properly use a muzzleloader, the shooter must recognize the range and load limitations of the firearm and compensate for these handicaps by improving his or her personal skill. If the rifle is to be used for hunting, a good deal of practice at various ranges is required.

The average deer is not a very large animal. By using the recommended target size and height you will learn to estimate range and compensate for bullet drop. (Information on deer anatomy and sighting is below.)

Follow steps 1, 2 and 3 below. After you have determined exactly how far your bullet or ball will drop at these various ranges, make up the practice target show at left. Use this target for practice before hunting deer. You should be able to place the projectile in the cross (or within 3" of it) at all three ranges before hunting game. Do not attempt shots that are beyond your practiced and acquired skill.

Skill with a muzzleloader can only be acquired by constant practice with a given load and firearm. Vary the range is indicated on this chart so that you know exactly how high to hold to compensate for the bullet's drop. Never attempt to hold at some undefined point above the back line of the animal (top edge of target). Such shooting is dependent on luck, not skill.

#### Steps to Construct Your Target



**1.** Adjust rifle sights to hit "dead-on" the point of aim at 50 yards.

75 YARDS



**2.** Use the same target size (and sight setting) and practice at 75 years. Make a mental note of the "drop". You must hold this much higher to compensate for the additional range.

**3.** Use the same target size (and sight setting) and practice at 100 yards. Make a mental note of the "drop". You must hold this much high

Follow steps 1, 2 and 3. After you have determined exactly how far your bullet or ball will drop at these various ranges, make up the practice target shown at the right (cross in the

heart area, etc.). Use this target for practice before hunting deer. You should be able to place the projectile in the cross (or within 3" of it) at all three ranges *before* hunting game. **Do not attempt shots that are beyond your practiced and acquired skill.** 







# **Deer Anatomy and Sighting**

#### Accuracy and Anatomical Knowledge are Required! NEVER ATTEMPT ANY SHOT THAT IS BEYOND YOUR PRACTICED AND ACQUIRED SKILL LEVEL. NEVER FIRE A MUZZLELOADING RIFLE WITHOUT A BACKSTOP BEHIND YOUR TARGET!



*Figure 1.* Our suggested target size approximates the chest area and shoulder height of a deer - from 36" to 40" at the top of the shoulder. Using this target size at various distances will help you control the placement of each shot and to estimate range.

To make a target like the one at the left, use a 14" x 14" piece of cardboard. This will approximate the chest area of a deer and help tremendously in judging range in relation to target size. Two pieces of 1" electrical tape affixed to the target in the shape of a cross provide the aiming point.

### TIP:

A pattern can be easily made by tracing the outline of a standard 3-D deer target or by purchasing a cardboard life size deer target from a local sporting goods store.

*Figure 2.* A living deer is not a one-dimensional flat surface as pictures on the standard "archery type" target. Think of the chest area of a deer as a box containing the vital organs of the animal. As the deer browses and moves about, this box is constantly moving, altering the optimum point of aim.

The average deer is about 60" to 75" in length. By using the recommended target size and height, you will learn to estimate range and compensate for bullet drop.





*Figure 3.* While not to scale, this drawing illustrates a point - the deer hunter is attempting to hit a large apple (which he cannot see) hanging inside a box (14" x 14" x 10"). As he moves around the box, or climbs above it, his optimum point of aim changes drastically. Accuracy and a working knowledge of the deer's anatomy are essential.

