

## RIMFIRE BENCHREST TIPS

Randy Hovis

I have put together a few tips for rimfire benchrest shooters to help you avoid many of the pitfalls and frustrations that I have had and to help you achieve good results at the shooting bench. Hopefully these tips will save you money wasted on constant trial and error. Remember, it may cost more initially for quality equipment but money is saved in the long run.

### THE RIFLE

Start with a good rifle that when combined with scope that will make the weight restrictions in the class you wish to shoot. Avoid rifles with barrel bands as these will interfere with barrel harmonics. Choose an action that has two action screws, it is nearly impossible to get top accuracy from an action with only one screw. Wooden stocks are plagued with problems due to humidity, which will cause point of impact changes. A better choice is a flat bottomed fiberglass stock bedded to the action. Your rifle action should have good lock-up from a well-designed locking lug system, not just locked in place by the root of the bolt handle. The barrel should be free floated and should not contact the stock at any point. An adjustable trigger that can be adjusted down to a few ounces will help you keep more rounds in the x-ring. Some rifles that meet most of the criteria are the Remington 40X, the Anschutz 54, the Kimber 82, Winchester 52D and many of the custom actions available from custom gunsmithing firms. For lighter rifles, the Remington 540/541's are good rifles to start with, however some had only action screw...but this problem is easily solved by simple gunsmithing.

### THE SCOPE

A good scope may cost as much or more than the rifle, but this is no place to cut corners. Choose a quality scope that is parallax free at the range that you will be shooting, or one that is parallax adjustable. The adjustments are the most important feature of the scope and should adjust exactly as marked on the scope. If the clicks are supposed to move the point of impact a quarter inch at one hundred yards, then you should expect exactly that. If you move the elevation knob and the point of impact shifts left or right, then you will have a frustrating time trying to keep your shots in the center of the bull. Try to use very fine crosshairs so you see more of the x-ring and center your shots. Good optics will allow you to clearly see your target and bullet holes at normal rimfire distances. Use sturdy scope mounts designed to fit your rifle. Shims should be avoided. A good rifle with a poor scope is worse than useless.

### AMMO

Always use match quality ammo. Good name brands are Eley, RWS and Lapua. If you are really trying to maximize accuracy, weigh and sort cartridges to one tenth of a grain. Then measure and sort rim thickness to within one thousandth of an inch. These two steps will eliminate most ammo related flyers. Once you have found a brand of ammo that

meets your standards, avoid shooting other brands in your match rifle. It will take ten to fifteen shots to re-lube your barrel once you have fired another brand in it.

High velocity rimfire ammo should not be used for precision shooting, especially at 100 yards. This ammo will fall to sub-sonic velocity before it reaches the target, causing erratic grouping. Stick with match ammo for best accuracy.

## HARMONICS

Harmonics are the vibrations that are caused by the shot being fired in the rifle. To achieve the ultimate accuracy from your rifle you will need a device to control these vibrations. A rubber de-resonator, weights, tuner or a combination of these can be used. These devices can make a huge difference in your rifle's performance. Often a very small adjustment in a tuner can dramatically improve accuracy. Tuners are available from Hoehn Sales and Time Precision. Limb Saver offers an inexpensive de-resonator that works very well.

Optimum rimfire accuracy is the result of all components of the rifle/scope/ammo combination tuned for maximum results. If you are having accuracy problems it could be a combination of small problems rather than one large problem. Take the time to examine every link in your benchrest system for potential problems, experiment and adjust.

Once you reached the point that you are confident in your rifle systems ability to put you in the winners circle, there is no need to constantly practice. Just show up on match day with your super-tuned equipment, check your zero and you will do well.

## MONEY SAVING TIPS

Good ammo is expensive. A box of 50 will cost from eight to thirty dollars. Instead of wasting money shooting good ammo in a poor rifle in hopes of attaining good results, it is better to use the money to buy good equipment from the start. Also, starting with good equipment prevents money from being lost when you trade in rifles and scopes that didn't meet your standards. Dealers love to take trade-ins, they make profit from both ends of the deal. They gain ...you lose.

Some of the major scope manufacturers (including Leupold, Burris, Trijicon, etc.) offer scopes at significantly reduced cost to certified firearms instructors. This is a great way to get a high end scope for the cost of an average scope. Become an instructor or befriend one.

Use Google to research 22 rimfire benchrest. There is plenty of information on getting set-up in rimfire benchrest. You can also view results from other club matches and compare your scores to theirs.

The 22 benchrest matches are really growing at the Belton Gun Club, many thanks to Steve Nicholas and to all the competitors for making these events so successful and fun.