



## **Mt. MADONNA BOWMEN NEWSLETTER**

**Fall 2006**

### **Presidents Message**

We have had a busy three months since May. The Bug Shoot was a big success. We had a successful regional Hunter/Field/Animal (H/F/A) shoot Sept. 10<sup>th</sup>. Shooter feedback from these events has identified areas on the range that need safety improvements. Rich

### **Range Maintenance**

What a difference when you can get out and do range maintenance and not be impacted by rain. Grooming of the archery range resulted in positive comments from Bug Shoot participants. Much work went into getting the range ready and thanks go out to all who helped with this chore. In preparation for the H/F/A regional shoot many hours went into painting hubs and installing missing hubs so that we can shoot from either Hunter, Field or Animal stakes at each target. This fall we need to work on a couple of safety issues, fix target roofs, and do some pruning to open up shooting lanes. We have accomplished a lot in improving the range so far this year. The county did a great job stabilizing the road to the range. This is much appreciated and hopefully will allow the road to be open year around.

### **Bug Shoot**

We had 285 shooters at the Bug Shoot. The skies were clear and the temperature was in the eighties. We received positive feedback about the shoot from participants. Feedback from club members and shooters gave us some items that need to be fixed. I want to thank all club members and friends of the club who helped make the shoot a big success. The opportunity for club members to shot the large bug targets on Saturday had few shooters, probably do to the hot weather.

### **Regional H/F/A shoot**

The regional H/F/A shoot was held Sept. 10<sup>th</sup>. The turn out was low but all who participated had a great time. The weather was perfect with clear skies and cool temperature. Kay and Ken Gardner did a great job of setting out targets and grooming trails. If we have the H/F/A round at Mt. Madonna next year we will try to schedule the shoot so that it does not conflict with other big shoots going on in the state. If you have not shot an H/F/A go shoot all 42 targets at the course. Rules for shooting an F/H/A round are posted on the bulletin board.

## HUNTER SAFETY

A recent hunting accident in Aptos resulted in the death of an archer during a wild boar predation hunt on private property. This is sad and the accident could possibly have been avoided if the hunters involved hunted defensively. The hunters had been hunting together for many years. A pig was shot with an arrow. The pig ran off onto another piece of private property. The hunters went after the boar with guns, without wearing fluorescent orange vests and without the land owner permission. One hunter fired shots to kill the pig and fatally injured the other hunter. Several mistakes were made in this hunt. Hunters must make sure that they have a clear line of fire and can clearly see their target when firing any weapon. Know where other hunters are at all times. It also helps to wear fluorescent orange clothing especially when gun hunting. Lastly make sure you have written permission from the land owner to hunt any private property. Remember always hunt defensively and obey the laws.

### Tips from the Master

One of the most asked questions about equipment is how to tune the bow properly. This is how I tune my bow for a world championship. When I tune my bow I use several different methods to achieve the most forgiving bow set up. When I am done, my bow can shoot arrows in tight groups at all yardages. When starting with a new bow (or new strings) it is important to make sure the strings have settled before any serious tuning can be performed. Usually 250-300 shots will suffice in letting the string settle. I usually shoot these arrows from a close distance and use these shots to get used to the bow. The first bit of tuning is setting the tiller on the limbs of the bow. Tiller is the amount of poundage each limb pulls. Most new bows limb pockets are machined so well and bow limbs have near identical poundage versus deflection that if both limbs are bottomed out and then backed off evenly to the poundage desired then the tiller is very close. When the tiller is adjusted the cam timing can be affected but adjusting the cams will not affect the tiller.

Next I adjust the cam lean. A bow with cam lean can be very difficult to tune as the arrows will always kick up on launch. Cam lean is usually adjusted on split yokes stems by twisting or untwisting different sides of the split yoke to line up the cams with each other. On solo cams or hybrid cams usually only the top cam is adjustable for lean. I will use an arrow laid flat against the side of the cam and pointed toward the opposite cam and set the cams so they face each other perfectly.

I have found that all cams, even solo cams, have an optimum rotation or a "sweet spot". Hybrid cams (unlike some manufacture claims) need to be tuned like a two cam bow. Bow cam timing can be checked on hybrid and two cam bows by having an observer check where the cables touch the cam stops at full draw. If the bow is let down just a little bit and one cam stop is touching the cable and the other is not, then the cams need to be timed. Two cam bows can be adjusted by shortening and lengthening cables so that both cams touch the stops at the same time. Hybrid cams are adjusted by adding or removing twists in the cable until the cams roll over and touch the stops at the same time. Most solo cams will have some type of reference mark or cam orientation to get optimum cam

performance. This information is available in most owner's manuals or call the retailer for a copy for your specific bow. When the timing is set then the bow is ready for arrow tuning.

I use a two step process to tune arrows to the bow. I initially set up the rest so the arrow comes straight off the bow, nock set at 90 degrees and center shot placed at center. I will then paper test the bow and make minor adjustments until the arrow makes a perfect hole at 3 feet, a slight high tear at 10-12 feet and a perfect hole at 20 feet on. When I have achieved the tear I then do the next tuning step.

The final tune is done on a 60 yard range. The method I use is called walk back tuning. I will hang a target on a large target butt (3 to 4 bales high) I hang the target on the top bale. I will then sight the bow in at twenty yards so all arrows are hitting the target bulls eye. I then shoot two arrows at 25 through 50 yards at 5 yard intervals with my 20 yard pin. I leave all the arrows in the target. How far I go depends on the speed of the arrows (my target bow will make 50 yards and then my arrows are hitting close to the bottom of the target butt, my hunting bow will easily reach to 60 yards). I then compare each set of two arrows and inspect how they lay in the target. As a right handed archer (opposite for left), if my arrows move farther to the left the further I shoot, then my arrows are too stiff, and I raise the poundage of the bow. If my arrows move farther to the right, then I am showing a weak spine and I lower the poundage of the bow. I then repeat the process until my arrows drop in a straight vertical line at all distances shot. Now my arrows match the bow perfectly.

I then move to the forty yard line and sight in the forty yard pin. I usually take a target and put two pieces of black tape ( $\frac{1}{2}$  inch wide) one piece vertical and one piece horizontal forming a cross through the bulls eye. I will then shoot groups of arrows and see how tight they are to the vertical piece of tape. If the arrows are not grouping real tight then I will micro adjust the arrow rest in or out and shoot again until all of my arrows are hitting close to the vertical line. I then move the sight so when I shoot all of my arrows hit the horizontal tape. I then will move the rest up or down slightly until all of the arrows now hit the same spot. I then sight the bow in so the arrows hit the center of the target. Now my bow is tuned and the 40 yard pin is sighted in.

When I set the rest of my pins I usually sight in on a horizontal piece of tape. I find it easier to hold on a long piece of tape then a bull eye. I am not done adjusting the sight until my arrows are hitting the tape. When I can hit the tape at all yardages then my bow is perfect. It is important to know that all of my world competition arrows are made with a lot of attention. All of my arrows are weighed to within a tenth of a grain of each other. The feathers or vanes are assembled on one single jig for consistency.

I believe a well tuned bow is an advantage for forgiveness and confidence. Both qualities are needed to shoot your best. Always remember, archery is just a game. Have fun! Mike