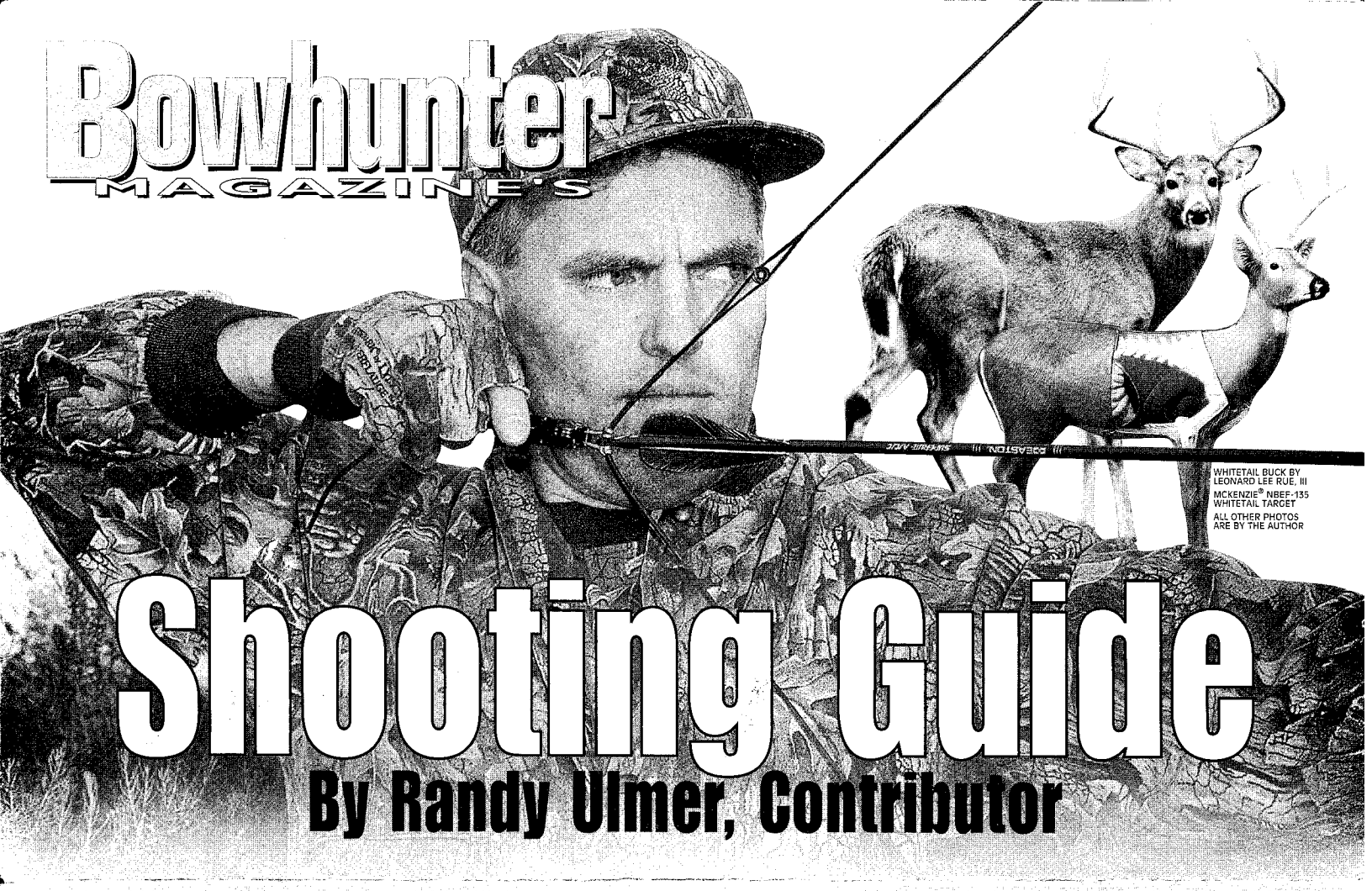
Bowhunter MAGAZINE'S



WHITETAIL BUCK BY LEONARD LEE RUE, III
MCKENZIE® NIBEE-135 WHITETAIL TARGET
ALL OTHER PHOTOS ARE BY THE AUTHOR

Shooting Guide

By Randy Ulmer, Contributor

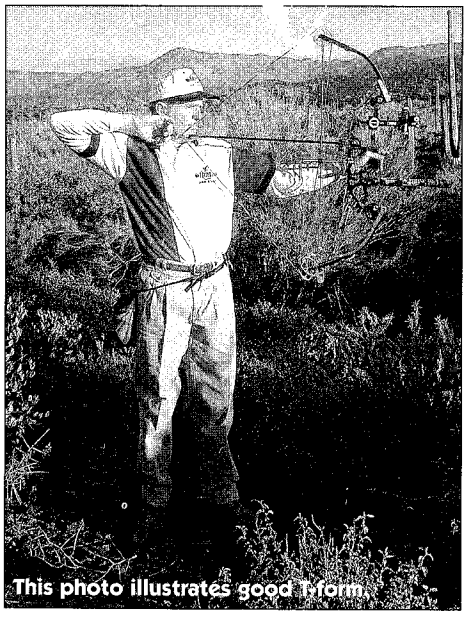
IN ORDER TO BECOME a better shooter, you must understand how to construct a good shot. Some of my ideas may work well for you, and some may not, so use what works and disregard what doesn't. However, most great archers have common elements in their basic shooting form, so don't stray too far from this model. It will serve you well.

STANCE

Stance is the foundation for the entire shot, so work on this. To build a solid stance, stand with your feet shoulder-width apart. Start by facing 90 degrees to the target and then step back with your front foot a half step or so to open your stance slightly. I like to keep my stance fairly closed for the straightest-possible alignment. However, if you have large arm muscles or chest, you may have to open your stance a little more for string clearance past your chest and bow arm.

Keep your legs straight so your weight is borne by the bones. That way, little muscular effort is required to support your body, and you'll be most stable.

Your spine should be straight and directly over your base of support. Your hips should be rolled forward, into the at-ease position (as opposed to the at-attention position). The at-ease position allows the weight of your torso to be held up by the ligaments of the hips rather than the muscles of the hips.



This photo illustrates good T-form.

BODY POSITION

Stand tall and erect with your bow arm perpendicular to your torso. Your right forearm (right-handed shooter) should be parallel to your bow arm. Your arms and torso should form a large T.

The best way to develop good T-form is to stand in front of a mirror, facing to the side, without a bow. Lift your arms as if you were at full draw. Try to form a perfect T. Now, turn and aim directly at the mirror. Align both arms so that if you could sight down through the point of the right elbow and through the right forearm, it would be in alignment with the imaginary arrow shaft. Your shoulders should be relaxed, down (not hunched), and level. Your right elbow should be slightly above the level of the shoulders. Your head should be held erect but relaxed.

Once you've established proper T-form with the imaginary bow, do the same with your real bow.

Shooting Tip *Here's a mental aid to help you stand tall and erect: Imagine a string attached to the top of your head is pulling you straight up during the shot. Standing tall is the hallmark of good T-form. When shooting up or downhill, try to maintain good T-form from the waist up. Bend at the hips and keep your arms perpendicular to your upper torso. By maintaining the proper relationships of arms and body, you keep the forces in alignment at all times. Remember, it's easy to develop good form – just stand tall and make like a T.*

ANCHOR

Anchor is the position of your string hand on your face. Ideally the anchor should: Provide solid, bone-to-bone contact, such as a knuckle to the jawbone; keep your drawing-arm elbow and forearm in line with the arrow; ensure clearance of the bowstring past your chest; and allow you to see all your pins in the sight window.

A good anchor is especially important if you don't use a peep. Your anchor must be solid and absolutely repeatable, because with no peep the anchor is the rear sight. Moving your anchor up or down is like shooting a rifle with a loose rear sight – you'll end up with a lot of high and low shots.

Your anchor point determines the position of your arm and shoulder. The proper anchor point is one that assures that your release arm is in line with your arrow.

Your anchor may simply be a finger in the corner of your mouth – the common anchor for fingers shooters – or it may incorporate a peep, a kisser button, and a knuckle against your jaw. Just remember, it has to be consistent. Once you've found your perfect anchor, practice until you can repeat it flawlessly under any conditions. Personally, I anchor with the knuckles of my index and middle fingers on either side of my jawbone. Also, I touch the string to the tip of my nose, and I always use a peep.

Shooting Tip *If you use a peep sight – and every bowhunter should – your anchor point will move slightly as you change from one sight pin to another. For example, your anchor point will be higher on your face when aiming with your 20-yard pin than when using your 50-yard pin. This can be uncomfortable for archers who become accustomed to shooting most of their arrows from one distance. To avoid this problem, mix up your practice sessions to include shots from every distance for which you have a sight pin.*

Set your peep sight so that your anchor point is in the most comfortable position for shots of average distance. This will likely be approximately 25 yards for a whitetail hunter and closer to 40 yards for those who hunt Western game in open settings. You can also open or close your jaw to adjust your anchor point for various shot distances rather than moving your hand up or down your face.

BOW HAND

Your bow hand is the only place you contact the bow once the string is released and the arrow accelerates forward. The way you put your hand into the bow and control that hand during the shot will ultimately determine your accuracy. Your hand position should eliminate bow torque (torque is any rotational force applied to the handle during the shot). To find your torque-free hand position, put baby powder or some other slippery substance on your bow hand and draw the bow. Rotate your hand left and right on the handle until you find the center position where your hand doesn't feel like it's going to slip. This is your ideal hand position.

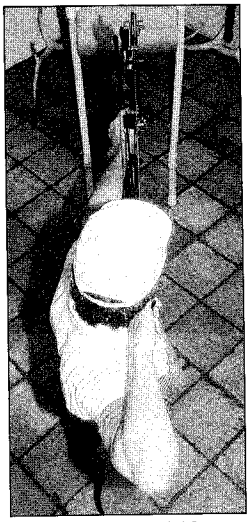
Not only must your hand be torque-free, it must remain relaxed throughout the shot. Theoretically, if your hand meets the handle so that the bones of the forearm line up perfectly with the pressure point (the torque-free position), you won't need to control your hand, and the hand can remain completely relaxed. Your bow hand must remain fully relaxed to allow the bow to move naturally, free from all interference.

To make this possible, you must use a bow sling. Otherwise, to avoid dropping the bow, you'll tightly grip the handle during the shot or grab the bow as you release, both of which will torque the bow and hurt your accuracy. Use a bow sling and keep your hand fully relaxed in the natural position throughout the shot. That's central to accuracy.

Shooting Tip *Most bad shots under high-pressure conditions are due to tension in the hands. Because your hands are your only contacts with the bow, tension here affects the way you grip the bow, release aid, or string, and this tension ultimately affects shot placement. Even if you remind yourself to stay loose, the pressure of the situation can lead to an involuntary white-knuckle grip on both the bow and the release aid. When you find yourself fact to face with the buck of a lifetime, try squeezing the release aid and the bow as tightly as possible just before you draw. Then inhale deeply a couple of times, relax both hands and make the shot. Tensing and then relaxing muscles has long been practiced effectively in meditation disciplines to achieve maximum relaxation. Tensing and then relaxing will loosen up your hands.*

BOW SHOULDER

Your bow shoulder must remain relaxed throughout the shot. To find the relaxed position, hold your bow arm out as if you were shooting. Force your shoulder down as low as possible, and then relax it. This should be its position during the shot. The object is to create bone-to-bone contact between the arm and shoulder, which minimizes muscular involvement during the shot and allows the shoulder muscles to relax.



Your head should be straight up, the forearm on the string side in direct line with the arrow, the bow arm and hand relaxed. Also, pull and hold with the big back muscles.

Another trick to keep your bow arm and shoulder in the proper position is to rotate your elbow down, so the bony part points straight down and the crook of the arm points up. This forces the shoulder to rotate down into a consistent, relaxed position.

BOW ARM

Think of your bow arm as a post whose sole function is to hold the bow up and out. You have no control over it. Once it's in position, you can't move the post in relationship to your torso. Any aiming up or down, left or right must be done by moving your entire torso, which in turn moves the post. Over-control of the bow arm and hand creates tension, which interferes with the bow's function during the shot.

I like to keep my bow-arm elbow slightly bent during the shot for several reasons: It reduces kick from the bow by acting as a shock absorber. I can hold steadier with a bent elbow. And keeping the bow arm relaxed is easier with a bent elbow.

HEAD POSITION

To maintain your balance and remain steady, you must keep your head centered and upright during the shot. Any deviation from that natural position leads to instability and inconsistency. To keep your head in its natural position, do not move your head to the string at full draw. Instead, move the string to your face while maintaining your head in its natural position, directly over the spine.

Also, set the peep in the string so that it comes directly to your eye. You must not tilt your head forward or back to see through the peep.

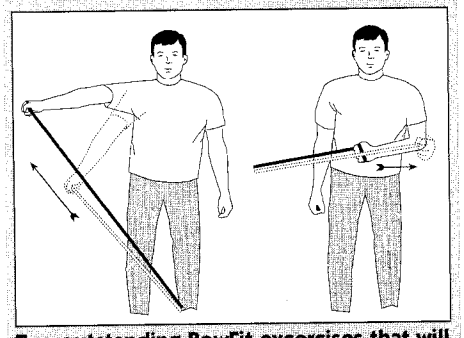
RELAXATION

One key to great shooting is relaxation. To stay relaxed, you must use only the muscles absolutely required to shoot the bow, while keeping all other muscles relaxed. One trick I've found is to use back muscles rather than arm muscles to hold the bow. Muscles of the back are larger and stronger, and they're more stable because they're closer to the spine.

Draw length is another key. To understand this point, hold your arms up as though you were drawing your bow. Now, pretend you're shooting a bow with a draw length 3 inches too long for you. Really stretch those arms out – and notice the tension you feel in your shoulders, back, and arms. Now, shorten your pretend draw length. Feel everything relax? Shorter is usually better when it comes to draw length.

One last note: When shooting, relax every part of your body not necessary for holding the bow up and back. In particular, relax the muscles of your face. Tension in your face radiates throughout your body. If your face is relaxed, your body tends to follow suit.

Shooting Tip *It's important to prepare your muscles, tendons, and ligaments for the stress of shooting before you begin. Take about 10 min-*



Two outstanding BowFit excercises that will help you build strong shoulders are the lateral shoulder lift (left) and the shoulder outward rotation (right).

Identifying Weaknesses

We naturally like practice sessions that reinforce our strengths. It just feels good to shoot well, but this false sense of confidence is a house of cards that will quickly topple when the winds of pressure start to blow. Having warm fuzzies about your skills won't make you a better archer or bowhunter. Being brutally honest in identifying your weaknesses is the best way to improve.

Many tournament archers perform great when they stand all by themselves at the range, but they shoot poorly when the pressure builds and people start watching. Rather than shooting to their potential, they subconsciously find ways to stay out of contention – to avoid these pressure-packed situations. The cure is simple: they must identify their weaknesses so they can step out of their comfort zones and still perform well.

Self-examination should include both the physical and mental aspects of the shot. The best way to identify flaws in shooting form is to have a very accomplished archer or professional coach watch you shoot. A critical eye is always scary, and leaving your comfort zone behind is always tough, but without these steps you will never shoot to your full potential.

Weaknesses also affect success rates in the field. No doubt, you have a preferred way to hunt. It is your signature. You've had some success with it, so you naturally assume it is the best way. In all honesty, it probably isn't. I know because I've been there myself. You can't get complacent after a certain level of success and expect to keep improving. The hunters I admire most have wide-open minds and have made a lifelong study of all facets of the game. Look at your technique a little more critically. You will find areas where you get sloppy. Don't be afraid to try new techniques. Ask accomplished hunters for help. Sure it's humbling, but that's how you improve.

Faults and weaknesses are like roaches. They are gritty, dirty little buggers that flourish when left alone in the dark. But shine a light on them and they quickly scurry away. Forming that light is your first step toward permanent improvement as an archer and bowhunter.

utes to warm up. Stretch your muscles for about 5 minutes, depending on how many exercises you do. You can use a rope or a towel, but I like to use the Bowfit archery exercise tool (1-888-757-5541). I stretch my arms behind my back, then up over my head and across in front of my body. I also twist my torso back and forth while standing upright and do some toe-touching stretches. The second phase of my warm-up routine is pulling my bow several times (without shooting). Finally, I like to move up close and train and prepare my mind by shooting the first arrows with my eyes closed, visualizing the perfect shot and all the steps that go along with it. If you use this warm-up routine you'll find that your first few shots will be much more consistent, you won't be nearly as sore the day after you shoot, and you won't be plagued by repetitive-use injuries.

AIMING

When aiming I keep both eyes open, but many good shooters close one eye. Also, my eyes focus about halfway from the pin to the target, but many good shooters focus on the target. It probably doesn't matter which way you aim, as long as you do it the same way every time. Experiment to see what works for you, then practice and hunt using only the method you've perfected.

Holding the bow steady is a big part of the aiming process. Unfortunately, the ability to hold a bow steady at full draw does not come naturally. Archers who are very steady have worked on their strength, endurance, balance, and relaxation for years.

To hold a bow steadier you must get stronger. The key to strength and endurance training is forcing your body to do a little more than it is used to doing. If you do this your body will come back stronger. Exercise those muscles used during the shot, and as they become conditioned you'll be able to hold the bow steadier.

However, keep in mind that no one, not even the best professionals, can hold a bow absolutely steady. So don't try to force the sight pin to stay on target, or you'll simply become tense. Let the bow move naturally and begin your release. Stay relaxed and execute the shot. The arrow will hit where it's supposed to.

Ideally both eyes should be open when shooting a bow. However, if your dominant eye isn't always 100-percent dominant you may need to close your non-dominant eye while shooting.

Shooting Tip *Be conscious of your eyelids; these simple shutters can have a major effect on your accuracy. Following are a few tradeoffs to consider when deciding whether to shoot with both eyes open, your non-dominant eye fully closed, or with your non-dominant eye partially closed:*

1) Shooting with both eyes wide open produces the widest field of view, but there is a potential downside. If your aiming eye is not significantly more dominant than your other eye, your eyes will fight to determine which one controls the sight picture. The result: as situations change, your sight picture will change too. Dominance becomes an even larger problem when the light is low and the restriction of your peep sight slightly diminishes the acuity of your aiming eye. At times like this it is very common for the non-aiming eye to seize total control of the sight picture. When that happens you'll miss by a mile. You can learn a lot about visual acuity and dominance by practicing under low-light conditions for a couple of days.

2) I shoot at game with my non-dominant eye completely closed. However, when I compete I use a blinder for my left (non-dominant) eye and leave both eyes open. My goal in both situations is to eliminate all possible variables in the sight picture, and by simply closing my non-aiming eye while shooting or covering it with a blinder I remove it from the equation. Sure, I give up some field of view, but I'm so focused on the pin and the target that I really don't want to be distracted by anything on the periphery of my sight picture anyway. I don't consider the lost field of view to be a big negative.

3) Some archers have found a compromise by squinting and keeping their non-dominant eye partially closed. This permits a fuller field of view while greatly reducing the acuity and possible dominance of this eye. A possible lack of consistency is my only concern with this style of aiming. It will work fine as long as the archer always positions his eyelid the same. At tournaments I've seen shooters whose aiming style changes as they get tired or when they're under pressure. When your sight picture changes, your accuracy has the potential to change too.

BALANCE

The more stable your foundation, the less work your muscles have to do to hold your body, and ultimately your bow, steady. The key here is to get your bones to hold the weight so your muscles don't have to. Bones don't shake under tension as muscles do.

To improve your balance and stability, force yourself to practice from uncomfortable and unstable positions. The same principles apply to balance training as apply to strength training. Force the body to do more than it is used to doing, and it will respond positively.

NERVES

Anxiety in any form tends to make the bow shake. This anxiety can be caused by the fear of missing, buck fever, a lack of preparation, or other factors. There are many theories on how to calm your nerves, but I've personally relied on two techniques: concentration, and admission of fear.

By concentration I mean bringing my thoughts to a central focus and pushing aside everything else. By focusing on each step of the shot process – one at a time – I'm able to push everything irrelevant to that one step out of my mind. It gives my mind something to do so it doesn't wander off to think about everything that might go wrong.

Then I admit my fear. When confronted by a high-stress shot, I admit to myself that I'm scared to death. At the same time I resolve that I'm going to make the best shot possible in spite of my fear. Surprisingly, this admission has a calming effect on me.

RELEASE

Most events that ultimately control the accuracy of a shot occur in the fraction of a second that transpires between the time you release the string and the time the arrow leaves the bow. Whether you use a release aid or fingers, you must be mentally and physically prepared for the shot.

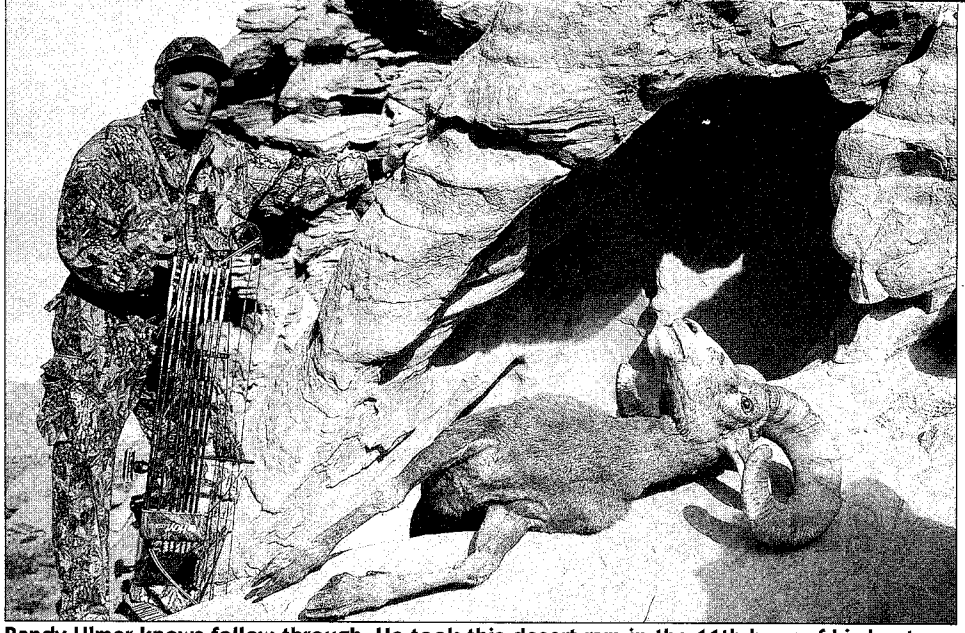
Mental preparation simply involves teaching yourself to believe the shot will go where you're aiming, and then concentrating until it gets there.

Physical preparation requires establishing and maintaining proper form during that critical millisecond between the release and the launch of the arrow.

If you use a release aid, you must squeeze the trigger and maintain some element of surprise when it fires. Many people have trouble doing this with an index-finger release. They tend to punch or yank the trigger. If you have these troubles, try a back-tension release (like the Carter Revenger or Stanislawski) or a thumb-triggered release. Shooting with fingers, you must learn simply to relax your fingers and let the string slip away. It should be almost as much of a surprise as with a release aid.

If release of the string does not come as somewhat of a surprise, the bow-arm side of your body tightens, anticipating the recoil of the bow, as the other side releases the string. Ideally, at the moment of release, you should not react in any way to the shot. Your body should stay relaxed, and the bow should be allowed to shoot the arrow with no interference from you.

Shooting Tip *The only way you can "try harder" in archery is to focus harder. Recent studies show that even trained individuals have a very hard time holding their focus on one thing for more than 7 seconds. Beyond that you are talking genius status. This tells me two things: First, you have to execute the bow shot roughly within this time frame once you've started aiming (or you need to break your concentration, regroup, and then start over). Second, most people who think they are fully concentrating really aren't. Real concentration is incredibly intense to the point of being almost exhausting. In archery, this kind of concentration is required at only one point: when you are actually aiming and executing the shot. If you approach the actual shot with the same air of objective detachment as the preceding steps of your pre-shot routine, you probably aren't concentrating hard enough. The actual shot should feel different. You really need to burrow in and "let your mind control the arrow."*



Randy Ulmer knows follow-through. He took this desert ram in the 11th hour of his hunt.

FOLLOW-THROUGH

The shot is not concluded at the release of the string – the explosion. Rather, the shot concludes after the arrow hits the target. This is follow-through, and understanding this is critical for accuracy.

Good follow-through is nothing more than a natural conclusion of the shot. Don't do anything different or extra at the end of the shot, just continue doing what you were doing (before you released the string) until the arrow hits the target.

I break follow-through into physical and mental elements. Physical follow-through is merely the body's natural reaction to the release of the tension holding the bowstring back. I believe the bow should drop away slightly at the shot. Once the force holding the bowstring back is gone, the bow will naturally fall forward and down slightly. Mental follow-through is a continuation of concentration until the arrow hits the target.

Some archers collapse completely at the release and the bow falls away dramatically. This disintegration of form is often preceded by a slower breakdown in form as the archer anticipates the shot. Good follow-through demands concentration and form from the moment of explosion until the arrow hits the target.

Shooting Tip *Because follow-through is an indication of how you were using your muscles at the moment of the explosion, by analyzing your follow-through on an errant shot you can often determine where you went wrong. For example, shoot several shots at a target while a friend videotapes you. Keep track of your good shots and your bad ones. I'll bet you can tell which shots are good and bad just from watching your follow-through on video. In my opinion, good follow-through is nothing more than a natural conclusion of the shot. You don't have to do anything extra at the end of the shot – just continue doing what you were doing before the shot until the arrow hits the target. As the explosion occurs, the bow pushes back against the hand as the arrow accelerates forward. The bow jumps forward and slightly left (for a right-handed shooter). The release-hand moves straight back along the line of the arrow and slightly right.*

REMEMBER, SHOOTING ABILITY is the most important skill a bowhunter can refine. No matter what other hunting skills you possess, if you can't make the shot when you have to, you'll never reach your true potential as a bowhunter. Build good shooting form. Your success depends on it.

The author is one of America's foremost competitive archers and most successful bowhunters. He makes his home in Cave Creek, Arizona.

EDITOR'S NOTE: ALL "SHOOTING GUIDE" MATERIALS WERE PREVIOUSLY PUBLISHED IN **BOWHUNTER** MAGAZINE. RANDY ULMER'S "THE HUNTING ARCHER" APPEARED IN THE APRIL/MAY '00 ISSUE. RANDY'S "SHOOTING TIP" APPEARS IN EVERY REGULAR ISSUE.

Get Some Shut Eye

During my daily practice I shoot the first five arrows and the last five arrows with my eyes closed from a distance of 5 feet, not because I expect to sneak that close to a buck, but because I want to get in touch with my feelings and explore my relationship with my bow.

Sound like I'm a few arrows short of a dozen? Well, read on. Shooting a bow is an athletic event, similar to a gymnastic maneuver if not as spectacular. Many small muscles in the upper arms and back must act harmoniously to perfect a shot.

During a normal shot, aiming and concern over where the arrow hits completely occupy the conscious mind, while the subconscious mind controls the shot process. To become more aware of what you are doing before, during, and after a shot you must eliminate concern over aiming and shot placement. Closing your eyes allows you to do just that. And it lets you feel the shot. As a result, you will soon discover things you probably never knew before, and eventually you will discover what the perfect shot feels like. Once you've felt the perfect shot with your eyes closed, you can try to repeat the feeling with your eyes open. If you can maintain this feeling, your shooting will improve rapidly. If you hit a slump, go back to shooting with your eyes closed until that perfect feeling comes back.