

# PRONGHORNS



Wayne van Zwoil

*... tools and tactics  
for the hunter*

Pronghorns have a way of seeing the invisible. To be an antelope hunter, you mustn't be satisfied with invisibility. Not if you want to get close. The only thing that really works is not being where you are at all. Few are the hunters who achieve this state, and fewer still the number who can shoot well in a crosswind from being where they are not.

These were hardly positive thoughts; but I'm a realist and had to admit that I was falling short as a killer of pronghorns. Six hundred yards away — no, seven — a herd with one very fine buck was dusting the prairie in its haste to leave me alone.

Sure enough, soon I *was* alone. I thumbed back the safety on my 722 Remington and shouldered it. Perhaps a long, circuitous stalk.

Hunting pronghorns is relatively



easy for a rifleman who's not averse to long shooting and doesn't mind taking mediocre heads. But for the archer, front-loader, handgunner, or photographer — or for those who want to tape, mentally, a trophy before it is shot — stalking these animals is sport indeed!

Getting a close-up look at the head is a must if you're after an antelope trophy. Horn and prong length as well as four circumference measurements determine a score, and your first appraisal can be misleading. A good horn must stand high, obviously. From the side it should appear at least as long as the head of the animal. In addition, the hooks should curve well inward. Heavy horns quickly outscore light ones. The width of the horn should be carried well up its length, the prong situated high. The length of the prong is important, too, as is the degree to which each horn matches the other. Truly fine horns look big; those that, from a distance, *might* make the grade usually don't.

Antelope horns can be as long as 20 inches, though a 15-inch buck is considered a big one. The best antelope ever taken came from Yavapai County Arizona in 1975. Its horns measured over 18 inches, with prongs longer than seven inches. Scoring 93, it supplanted a record head that had been on the books at 101 6/8 since the inception of the current records system in 1950. Scrutiny of those incredible horns in 1979 showed them to be ineligible: both had been skillfully lengthened at their bases! Taken by an unknown hunter late in the 19th century, the buck was so much superior to the best pronghorns currently being shot that it had been considered a lost genetic strain before the tampering was discovered. The fakery, done with paper maché and lamp-black, remained invisible from the outside. Only when the horns were removed from the mount was it noticeable.

To collect a trophy pronghorn — or any pronghorn, if you're hunting with a short-range weapon — you must first reckon with the animal's eyes. They're phenomenal. Still,

I'm tired of hearing them compared to 8X binoculars. You can bet your last box of 25-caliber Noslers that no one has seen the world from an antelope's perspective — nor is anyone likely to. The degree to which pronghorns perceive color (a function of the cone cells in the eye) has not been determined. Nor has their ability to pick up and identify movement or detail in a landscape. As for distinguishing objects in low light, pronghorn vision can beat binocular-aided human sight hands down. That is because the human eye has fewer light-gathering rod cells and cannot take advantage of optical exit pupils larger than seven millimeters. An 8x56 binocular with its 7mm exit pupil simply magnifies images that in poor light are indistinguishable to the unaided human eye. In other words, it only makes them bigger, not clearer. Larger objective lenses gather more light, but it is light that the fully-dilated human eye cannot use.

The 8X-binocular story (also applied to sheep and other game animals that have outwitted hunters) probably originated with a novice nimrod who spooked a herd of antelope so far distant that to see the animals run through the dust he had to use his binoculars. The fact that he was perched on the horizon, looking into the sun while brandishing a highly-polished rifle probably never entered into his calculations.

Or, come to think of it, the comparison could have started with a compatriot of mine who hunted prairie goats with a bow. Having successfully stalked a buck to within 40 yards, this fellow released a perfect arrow at the broadside animal. He maintains the pronghorn saw the shaft approach, then, with a hit imminent, swung around 90 degrees to watch the arrow fly harmlessly past its shoulder. Other bowmen have had similar experiences with arrow-dodging antelope. Electronically-quick reflexes combined with those radar-like eyes leave many archers chewing their nocks.

Pronghorn eyes *are* superbly suited for life on the plains. Set high on the head, they're very large and

protrude from prominent sockets. This arrangement provides a field of view unexcelled in North American big game animals — roughly 320 degrees. The antelope's senses of smell and hearing, while functional, are relied upon to a lesser extent than those in other large ungulates. It is the penchant of whitetail and mule deer to seek cover when alarmed, running upwind when possible to detect danger in the path of their retreat. Pronghorns behave differently. Distance is their security, a straight flight across open ground their assurance that no ambush awaits.

But keen vision isn't the only thing a pronghorn hunter need consider. The prairie goat, though frail in appearance, is a good distance runner, and a tough target when on the move. That means you'd better be in shape to chase 'em and a practiced rifleman to slide 'em to a stop!

A pronghorn's speed, like its vision, has often been overrated. No hoofed creature can crank itself up to 80 mph. Or 70. Even 60 is an optimistic figure, but antelope can come close. Somewhere between 50 and 55 mph is top speed for most pronghorns, though they can maintain this pace for well over a mile and have averaged 30 mph over a seven-mile run.

Tagging a pronghorn on the blitz is not impossible. Antelope run "flat", with little vertical movement. Though they sprint half again as fast as a deer at full throttle, they're easier to hit because they don't bound. Still, swing and lead must be perfectly executed. And distance from the gun is a significant variable. Bullet flight time on a deer crossing the hunter's front at 25 mph 50 yards from the muzzle need not be considered if the rifleman is swinging with his target. At 100 yards it cannot be ignored, at 200 it can cause a complete miss. Double the acceleration of the target and you have problems even at 50 yards! Note the accompanying table (1) if you still think high-velocity rifles obviate the need for lead and follow-through.



The pronghorn's eyesight and speed are its most highly-touted defense mechanisms. With peripheral vision approaching a full circle and a "top end" of over 50 mph, antelope are well equipped for life on the prairie.



Gene Brehm photo

One of the dangers of shooting at any running game is that of wounding the animals. A moving gun increases the risk of error when the margin for error is small. Too, pronghorns are herd animals; though mature bucks nearly always bring up the rear, sometimes they run close to the main group. Even a well-centered hit can cause death or injury to non-target animals on a pass-through. Running shots are only good shots when they result in clean kills. Making every bullet count is an achievement—and a skill that should be cultivated.

The sun was well into the sky now, burning, blazing. Heat waves coiled and flattened in front of my glasses as a gusty wind tugged at the black sage in the basin. They weren't here. Again I shouldered the rifle, puzzled. Pronghorns have a short memory and will normally stop running after a mile or so,

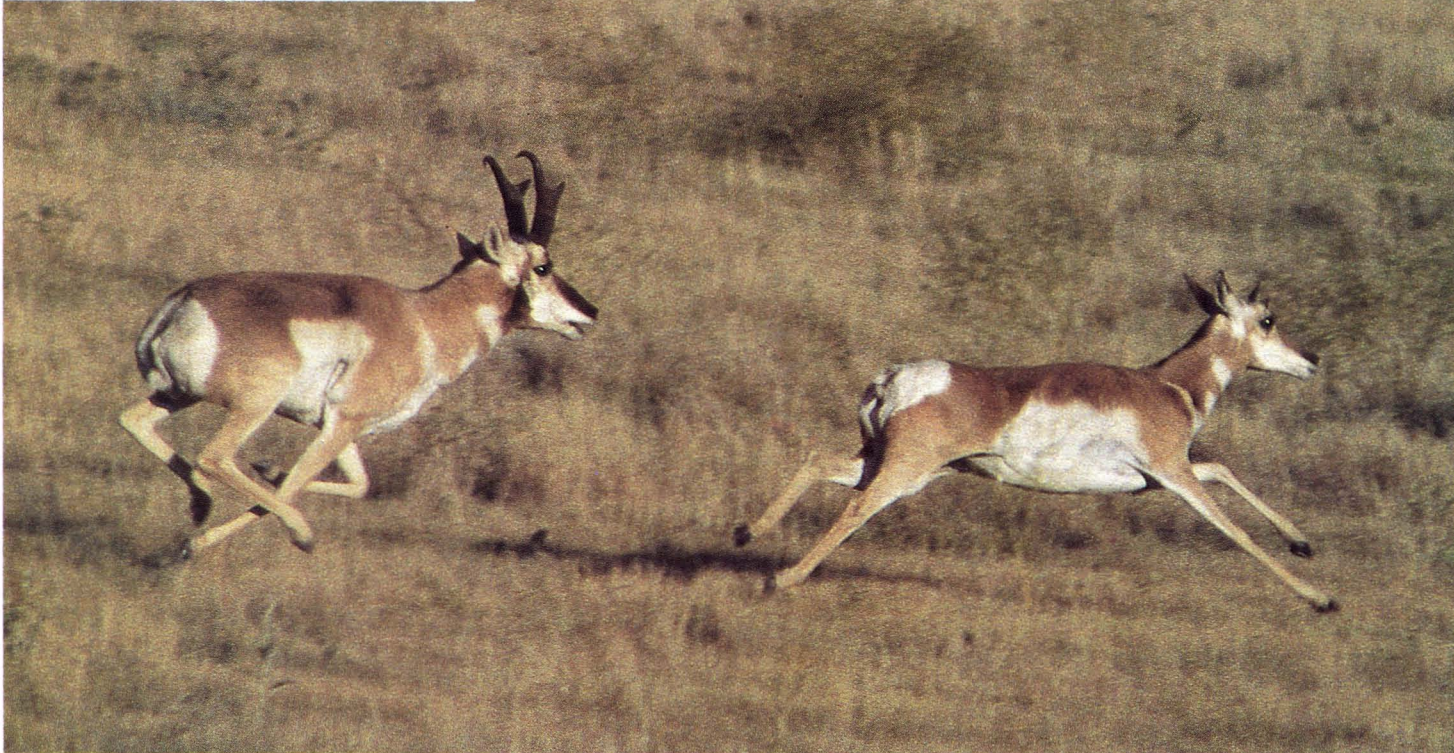
especially if they can put a ridge between themselves and a perceived threat. I was on a hogback that should have been the perfect security wall, and the flat below me was large enough to afford alert pronghorns a big buffer zone of safety.

But they weren't here.

I picked my way down the ridge and around the edge of a small limestone outcrop at its base. As I rounded the corner of the white rocks, I caught the glint of sun off a horn tip. I froze, but too late. A scant 20 steps to my right, two dozen pronghorns turned on their afterburners in unison and jetted into the open. Twice I milked the trigger on the little .244. Neither time did the trailing buck flinch at the report. The dust hung in a thin thread across the basin as I pocketed my empties.

They were gone, and soon the wind swallowed up their dust.

Pronghorns may feel secure in the open, I mused; but to assume they never use cover is to err. I thumbed a couple more 100-grain handloads





into the magazine, recalling the mature antelope buck I'd once encountered at 5,000 feet on a timbered Oregon mountainside. Never say never.

The wind was picking up now, erasing the mirage but making a long shot with the 6mm more difficult. The sun was too high to use as a backdrop — a tactic I often employ to make myself invisible to pronghorns. And my throat was parched. I couldn't move the sun or stop the wind, but I *could* have brought some water. Tightening my binocular strap, I broke into a trot across the basin. . . .

There are easier ways to hunt pronghorns. Probably most of the antelope tagged by archers are shot from blinds, usually erected or dug near water holes. Favored feeding areas can also be staked out, as pronghorns are creatures of habit. Some prairie goats have no doubt been clobbered by hunters using abandoned windmills as elevated stands, while others have been taken at fence crossings. Antelope don't like to jump fences, much preferring to crawl under the low strand of barbed wire or find a hole in woven mesh. The animals tend to use the same crossings repeatedly, offering well-camouflaged marksmen a short-range shot.

Because antelope have keen eyes and recognize areas that could hide predators, blinds must blend with the landscape and be completed several weeks before the season opens. The pronghorns must accept your blind as an innocuous part of their environment, or you'll never get a close shot from that hiding place. Even if they are just mildly suspicious, you probably won't be able to shoot from the structure, as it will always be under scrutiny.

A pit blind I once occupied was a prime example. Just 18 steps from a water hole, it was made to house an archer and accommodate the movement of the lower bow limb during the shot. I never put it to the test, however. Every pronghorn that came to water at that seep used the far end

of the hole — 60 yards distant — and kept a wary eye on the mound of dirt in front of my blind. I'd cut a small 'V' in the top of the mound to give me a view of the area without exposing my head. The way the antelope kept my blind under surveillance, I dared not blink while looking through the notch. A shot — with exposed upper bow limb and torso and draw movement — was out of the question.

That hunt taught me about camouflage clothing, too. My partner and I wore faded woods patterns, knowing that the light grays and tans of sagebrush and prairie would contrast with darker clothing. Still our garments were too dark. We

prairie; and shadows caused by the three-dimensional human form are accentuated by dark garments.

Though primitive-weapons buffs are all but obligated to wear camouflage, hunters who use centerfire rifles may actually choose not to. The reason is that you are much better able to keep track of a hunting partner if he is wearing at least one piece of brightly colored clothing. And other hunters, shooting bullets that travel unimpeded across hundreds of yards of prairie, are better able to see *you*. Finally, of the discrepancies an antelope can spot at long distance, an odd color is among the least likely to alarm.



Gene Brehm photo

*This M70 Winchester in .243 is a superb pronghorn gun: flat-shooting, accurate, and capable of clean kills on antelope to 400 yards. And it is a pleasant rifle to shoot. The scope here is an 8X — fine for long shots, but a bit more powerful than necessary. A 4X or 6X glass would be ideal.*

concluded that the best pronghorn camouflage was not available commercially, that it would require a khaki background with light green and gray mottling and perhaps a few thin dark gray 'branch-lines' woven through it. Because pronghorn country is so often well lit, with little shadow, and the rocks as well as the vegetation are of light neutral colors in fall, any dark clothing becomes immediately noticeable. Even medium-tone camo clothes look almost black on a sun-drenched

**M**y throat was really dry now. The pronghorns had run for two miles before halting in the center of a large flat. My route would take me around that flat, on a course that was close to four miles long. The sun, liquid yellow, almost crackled with heat as it blasted the painted rocks, the rough-barked sage, my back and shoulders. The hot wind was no reprieve. I wiped the sweat from my rifle and found my T-shirt to be wetter.



On the ridge, belly to the ground, I inched forward, trying to keep the muzzle above the dirt. There he was, his herd scattered around him. The sling keeper snugged itself against my bicep, and sweat dripped into the ocular lens of the 4x Lyman scope.

Two breaths, 350 yards. The little

able-power scopes as a substitute for binoculars, but this is generally not a good idea. Because a scope is mounted on your cumbersome rifle, you'll wind up using it less than you would a pair of binoculars. The extra movement necessary to employ it might also give you away to your quarry. And scopes deny you

for locating your quarry, spotting scopes enable you to judge its headgear from a distance. That prerogative can save you lots of time and not a few cactus spines gathered in stalks on substandard bucks!

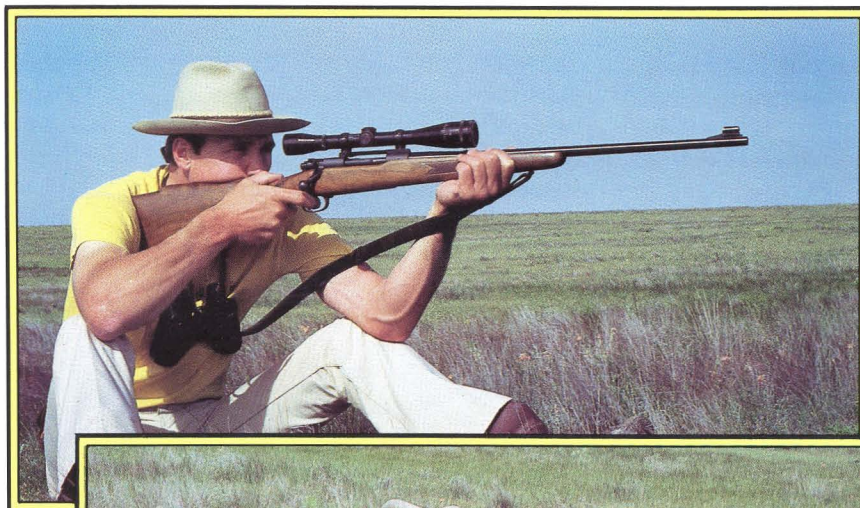
Volumes have been written on big-game rifles. Too often recommendations are made for combination guns — those that will work for several species. Overlooked is the fact that most centerfire rifles will kill most big game under the right conditions and that recommendations, if there are any, should be for the *best* gun for a given species under the hunting situation most likely to be encountered.

Unlike deer, which may vary in body weight from 80 to 350 pounds and are found in a great variety of topographic and cover types, pronghorns are of predictable size and occupy pretty homogeneous habitat. They are light-boned and frail; the country is open. So the demands on a pronghorn rifle are specific.

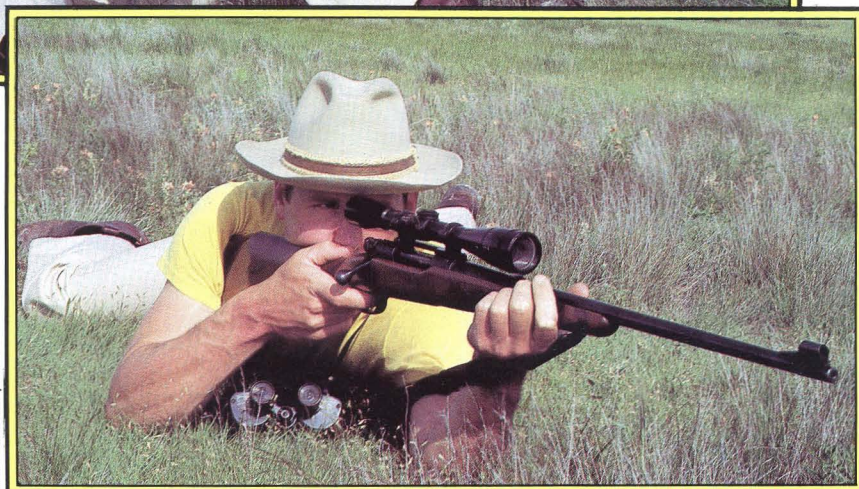
The gun must be accurate, as your best opportunity may come at reasonably long range. It must also be a light-weight weapon if you, like me, wish to stalk your quarry instead of waiting in a blind. And it must have a scope, preferably a four- or six-power glass of the finest quality you can afford, set in low rings on a solid top mount. Finally, it must be equipped with a shooting-type sling to enable you to precisely place your bullets from prone, sitting, and kneeling positions.

Good antelope cartridges are plentiful. The .243 Winchester and 6mm Remington (a renamed .244) are made to order, as are the hotter .25's. Savage's .250 and the .257 Roberts are fine for all but very long-distance shooting. The .25-06 is a superb long-range cartridge, with a much flatter trajectory. Weatherby's .257, like the firm's .240, is also an outstanding performer. Bullets in the .24 to .25 class should be 100 to 120 grains in weight and of spitzer configuration to hold their velocity downrange.

A bit more powerful than necessary, but of unquestionable merit,



Gene Brehm photo



Gene Brehm photo

*Even if a standing human figure didn't alarm antelope, shooting from the prone or sitting position would still be the only smart thing to do. A tight sling makes them steady indeed.*

dot steadied on his backline and the trigger broke. My quarry bolted, then stopped at an even 400 yards. The wind was stiff, and I forced myself to hold a foot high, more to the left. The buck jumped and I knew it was over, even before the 'whop' of a hit floated back.

To maximize your chance of spotting pronghorns — which often means locating pieces of pronghorn hide, the glint of an eye, or the curve of a horn tip — you must have good optics. Some hunters use vari-

the binocular vision so important in determining distance.

Binoculars need not have baseball-size objective lenses, as pronghorns are diurnal animals, and most of your hunting will be done under brightly-lit conditions. Magnification should be from seven to ten power. I favor 9x35 and 10x40 glasses, using them from a rest to minimize wobble.

Spotting scopes are very useful for pronghorn hunting — especially the compact models recently designed for that purpose. Besides giving you increased magnification



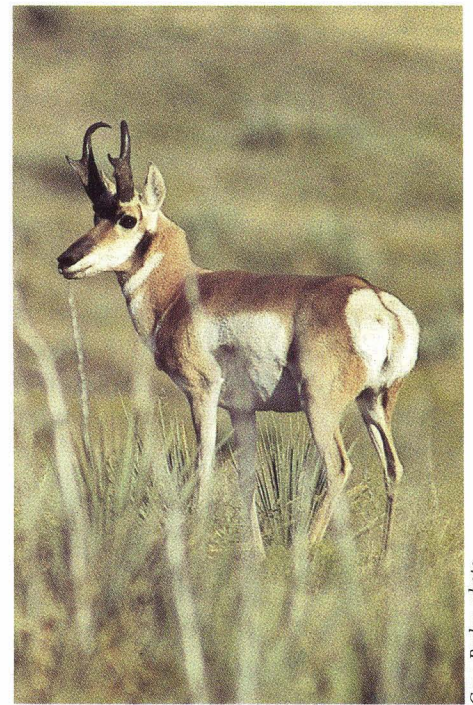
are the .264 Winchester, .270 Weatherby, 7mm Remington, and 7mm Weatherby rounds. The .270, .280 (7 mm Express), 7-08, and 7x57 unbelted cartridges are excellent too, used with 130- to 145-grain spitzer bullets. On pronghorns varmint pills expand too violently, while heavier slugs are simply unnecessary, requiring shoulder-bruising loads to push them to acceptable velocities.

The world-record pronghorn was taken with a .300 Savage, and certainly cartridges of this class will kill prairie goats. But it and other mid-range 30-caliber rounds are far from ideal. The .30-06 and .308 with 150- or 165-grain spitzers do a fine job on antelope. Still, the ballistic coefficients of these bullets are lower than the b.c.'s of many adequate slugs in smaller calibers. To get high b.c.'s in the 30-bore requires that you up bullet weight far above that needed for pronghorns. While ballistic coefficient (weight of the bullet divided by the product of its form factor and diameter squared) isn't everything, it does figure heavily in long-range

shooting. A ballistic coefficient of at least .350 in a bullet of no less than 100 grains driven at a muzzle velocity of 2700 to 3500 feet per second guarantees adequate retained energy downrange. These requisites are met by the 100-grain spitzer in the .243 Winchester.

The energy your rifle delivers at the antelope is far more important than what it delivers at the muzzle. Distance absorbs energy and compromises bullet performance. When evaluating rifles for pronghorns and when estimating kill distances afield, allow 800 foot-pounds as a minimum acceptable energy figure. Our baseline .243 will turn in 800 foot-pounds at 425 steps, while the .25-06 carries the same clout well over 500 yards — in other words, beyond realistic shooting range. The .270, .280, .284, .30-06, and medium-bore belted magnums are in the same class, with the 7X57, 7-08, and .308 close behind.

Energy figures alone, however, do not a pronghorn gun make. Handgunners will note that of all popular revolver cartridges, only



Gene Brehm photo

*Judging pronghorns on the hoof isn't always easy — though this pose gives you all the information you should need. These horns are well-formed and evenly matched, with the beginnings of good hooks. They are very average in length, mass, and prong size, however. Definitely not a trophy-class buck!*

the .44 magnum and .45 Winchester magnum generate over 800 foot-pounds of energy — at the muzzle! Both these rounds fall short of that figure at 50 yards; and black-powder guns, depending on bullet type and powder charge, can fail the same test. Are such weapons inadequate?

Of course not.

Bullet energy can be computed in many ways. Foot-pounds is the most popular yardstick and is derived by multiplying bullet weight in grains by the square of the velocity in feet per second, then dividing the product by 450,240. Some shooters feel high velocity figures too heavily in this calculation, that cartridges like the .220 Swift, propelling light bullets near the 4,000 fps mark, rate much higher than they should, while slower offerings, like the weighty .358 Winchester slug, rank

*Fence crossings are good places to lie in wait for pronghorns, as they'll generally use the same ones repeatedly. They like to go under wires rather than over them, and tight, closely-strung fences seriously impede herd movements.*



Gene Brehm photo



artificially low. Obviously a .44 magnum revolver bullet will perform just fine on pronghorns at 50 yards. It weighs over four times that of a .22 centerfire and opens a hole roughly four times as big. Muzzle-loaders of .45 caliber and up can also turn in good short-range performance. Poor ballistic coefficients sap velocity quickly from these projectiles; but that doesn't affect their up-close punch! Bullet weight and diameter are more significant factors in other computations of bullet energy. These are beyond the scope of this article.

Foot-pounds are only transferred with a hit, of course, and good sights and careful shooting are essential for clean kills. Though your belted boomer may deliver the requisite energy and bullet weight at 600 steps and shoot a bullet flat enough to take pronghorns with a foot-over hold at 500, it will only miss and cripple if misdirected. More power and violin-string bullet paths only benefit conscientious riflemen with well-equipped weapons.

Proper bullet construction for pronghorns might be described as cohesive, but easy to open. Light bones and a small body call for quick mushrooming. Bullets designed for mule deer and elk are often too strongly put together for pronghorns and fail to open adequately — especially at long range where impact energy is low. Quicker kills come with bullets of hollowpoint design and those soft-points with lots of lead exposed at the tip. This is not to advocate varmint bullets; if you stay away from slugs of less than 100 grains in the 24 and 25 calibers and less than 130 in the 26-to-30 calibers, you'll not need to worry about using a bullet that's too fragile.

Pronghorn rifles are best sighted in at 200 yards. Most flat-country cartridges will then print two or three inches high at 100, four to six inches low at 300, and 16 to 20 inches low at 400. You'll need to compensate only at ranges beyond 250 yards with this formula. A high shoulder hold will get your goat at

To hit a running antelope, you must know the lag time of your bullet and the yardage the pronghorn will cover in that interval. A smooth swing and follow-through are important, too! Here are some leads calculated for a target moving at 50 mph 90 degrees to the bullet path. Lead for animals running at a more oblique angle or those traveling slower will, of course, be less.

Table 1: Approximate lead (in feet) required for pronghorn running at 50 mph across line of fire.

Bullet	Range, Yards			
	100	200	300	400
.257 Weatherby 100 spitzer @ 3300 fps	6.6	14.6	22.6	32.1
.270 Winchester 130 spitzer @ 3000 fps	7.3	15.3	24.1	35.0
7x57 Mauser 139 spitzer @ 2700 fps	8.0	17.5	27.7	38.7
.300 Savage 165 spitzer @ 2400 fps	9.5	19.7	30.7	43.8

Wind has a significant effect on bullets over long distances and is often a factor in antelope hunting. Here are some deflection figures derived for the military .30-06 M1 boattail bullet weighing 172 grains and fired at 2700 fps. This bullet has a ballistic coefficient of .56; most hunting bullets are not as streamlined and will be affected to a correspondingly greater degree by wind.

Table 2: Deflection in inches of 172-gr. .30-06 bullet in crosswinds of varying speed.

Range, Yards	Wind Speed, MPH					
	5	10	15	20	25	30
100	.35	.70	1.05	1.40	1.75	2.11
200	1.32	2.64	3.96	5.27	6.59	7.92
300	2.99	5.98	8.97	11.96	14.95	17.95
400	5.46	10.91	16.36	21.82	27.27	32.73
500	8.80	17.60	26.40	35.19	43.99	52.80

Deflection formula:  $D = W(T - T_v)$ , where D = deflection in feet, W = wind velocity in feet per second, T = time of flight, and  $T_v$  = time of flight in vacuum. A simpler formula, though not as precise, gives essentially the same information:  $D = \frac{RW}{C}$ , where D = deflection in minutes of angle, R = range in hundreds of yards, W = wind velocity in miles per hour, and C is a constant for a given bullet at known velocity. C for a 150-grain flat-base .30-06 bullet (ballistic coefficient .41) is 10, so deflection in a 20-mph wind at 300 yards is:  $D = \frac{3(20)}{10} = 6$  m.o.a., or 18 inches. Note that this figure is significantly higher than that for a 172-grain boattail bullet with its ballistic coefficient of .56. The table below emphasizes the role ballistic coefficient plays in a bullet's battle with the wind.

Table 3: Drift (in inches) of bullets of different ballistic coefficients in 10-mph crosswind (muzzle velocity: 3,000 fps).

Ballistic Coefficient	Range, Yards			
	100	200	300	400
.240	1.3	5.5	13.5	26.0
.300	1.0	4.3	10.4	19.5
.360	.8	3.6	8.4	15.7
.420	.7	3.0	7.1	13.2
.480	.6	2.5	6.1	11.2
.540	.5	2.3	5.4	9.8



300 steps, and placing the horizontal crosswire even with the eye of an alert buck is good advice for that 400-yard effort . . . if you can't get closer.

Wind is a constant companion on the plains, and you, as a pronghorn hunter, must learn to cope. Arrows, black-powder balls, and handgun bullets all deflect sorely in even a gentle breeze, but the ranges at which they're used don't require a lot of wind-doping skill. When you're pushing a high-velocity bullet 300 yards across a sage flat, however, the wind can wrestle that slug an amazing distance off course. Lighter bullets and those of low ballistic coefficient are most susceptible to the seductions of prairie breezes, but *every* bullet is affected to some degree. Tables 2 and 3 should give you some idea of what to expect in terms of cross-wind deflection. To go pronghorn hunting without shooting your rifle from the bench under varying wind conditions is akin to entering a sailboat race never having unfurled your cloth!

It was some years later, but the sage and the grass and the cactus spines were the same. The breeze was cold this time, though, the sun a banana-cream yellow against the shower-curtain gray of skies that carried the chill of late fall onto the prairie.

I'd crawled through the dust and cactus after many antelope, had put my mental tape on a few. The .270 I carried today hadn't been fired. But now I was hopeful. This buck had looked good, lounging in the pocket of a gentle slope that hung on a long ridge to the north. His harem included perhaps a dozen does. Two lesser bucks accompanied them.

I crawled, crosswind, behind a finger of the ridge, then worked north and east along it. Sometimes I rose to a crouch, but mostly I just crawled. The cactus hurt. Finally even in elevation with the herd but

unable to see any save a few does, I reached a spot I felt was only 200 yards from the buck. Cautiously I got to my knees, tightening the sling on my arm and swinging the old model 70 out in front of me. The does, all of them now between three and four hundred yards distant, began to get restless. One buck, a twelve-incher, broke into a trot.

My quarry was not in sight.

I swiveled the rifle on my knee, scanning the swale through my 6X Redfield scope. Slowly I rose to my

clump of bluestem away from the objective lens of my scope. Ghost-like, through the feathery fingers of prairie grasses, the antelope suddenly appeared. The young buck stepped forward first; the big one followed. Fourteen inches? Fifteen? His horns were well-matched and heavy, and they carried high prongs.

I took a deep breath, let it half out. The young buck walked across the horizontal wire and I nudged the reticle upward. The big buck eased



Gene Brehm photo

*Pronghorns are especially challenging to those who carry primitive weapons. This black-powder hunter is justifiably happy with his buck. Archers and (where legal) handgunners must work even harder at their sport.*

feet — then dropped flat on my belly. Less than a hundred steps away the horn tips of two bucks were visible through the grass. During the stalk the smallest buck had moved near my target animal and both had bedded down. I knew I was not invisible; if I'd seen their horn tips, they'd seen me.

Prone now, I wriggled forward to a slight rise and carefully bent a

into the scope field and the .270 slammed my shoulder.

It was a short run, and his last. When I reached him, he was dead.

The soft glow of the sun was lost in the musclings of a cloud. The wind picked up. I slipped the empty cartridge into my pocket and felt the polished curve of the hooked horn at my feet. I was thankful for the hunt.



## ... their life story

**P**ronghorn antelope are not really antelope at all, not related to the scores of African antelope species. No, pronghorns are an American original, as much goat as antelope and the only member of the family Antilocapridae. In some circles the males are known as bucks, in others billies. Females are usually does, though. The species' scientific name is *Antilocapra americana*.

Both bucks and does may have horns. Appearing to be agglutinated hair, they are instead hollow and formed of the same keratinous material as the horns of bovines. Unlike those of domestic cattle, however, an antelope's horns are branched and cover a small bony core that is attached to the skullplate. They are also shed annually. While a mature buck's headgear will be over a foot in length, a doe's horns are rarely more than two inches long. And only about 70 percent of antelope does have horns at all!

The life cycle of a pronghorn begins with the rut in early October.

The necks on the mature bucks swell, and these animals defend more aggressively the territories they've occupied since April. As the mating urge increases, the male hierarchy becomes more apparent as older, dominant bucks chase young males from among the females and begin to collect harems. The size of a harem is not necessarily a function of a buck's size or aggressiveness; the

groups and head back toward spring range. Pregnant does soon split from these bands to search out a place to have their young. Nearing the end of the 252-day gestation, and for about five weeks after parturition, these does prefer to remain alone — though occasionally they can be seen accompanied by last year's offspring.

A pronghorn fawn weighs about



Ron Spomer photo

terrain, sex ratios in resident herds, and the number of pronghorns in the area all affect the harem by making it harder or easier to control. A buck can successfully service more does than he can manage to keep in his harem.

After the rut both bucks and does shed their horns, and small breeding bands coalesce to form larger herds. Some number as many as 2,000 animals. These herds will winter in the same area they used as summer range — if it will support them. If not, the animals may journey as far as 100 miles to find suitable winter range.

As the snow melts from the prairie, the large herds break into smaller

seven pounds at birth. Its incredibly long, awkward-looking legs are functional in a few hours, and by the fifth day on the ground it can outrun a man. For the first week the fawn (usually one of a pair, though singles are the rule for first pregnancies) protects itself by lying flat in the prairie vegetation. The doe, never far away, visits it only at feeding time, to avoid attracting predators to her newborn. The fawn is so well camouflaged and remains so still when unattended that even in short grass it is very hard to see. By the end of the first week it is able to follow its mother around, and in just three weeks it is nibbling vegetation. Weaning occurs in September for male fawns, October for females.

Succulent grasses comprise much of a mature pronghorn's diet in spring. Prairie forbs become more important in summer as the grass matures. In autumn, when forbs lose their succulence, sprigs of woody plants are consumed in increasing quantities. Come winter the menu is often almost 100 percent browse. Where agriculture provides crops like alfalfa and wheat, pronghorns relish the new growth and occasion-



Gene Brehm photo





Gene Brehm photo

ally eat mature seedheads. Grazers as well as browsers, antelope make full use of the potpourri of plant species that covers the prairie. As ruminants, they can extract maximum nutrition from materials high in cellulose. An inordinately large liver is thought to enable them to eat plants high in selenium (alkaloids), while sizable kidneys probably allow greater excretion of toxic substances. Pronghorns have a small stomach — about half the size of a domestic sheep's. This may be to make room for the large heart and lungs so necessary for running.

Antelope actively seek the most succulent of vegetation and, when they can find it, do not need to drink. Free water becomes important to these animals only when their forage dries up in summer and fall. Then pronghorns have been known to drink as much as a gallon a day in hot weather. In some areas of the Sonoran desert, antelope thrive without free water, obtaining moisture from the chain fruit cholla and other desert succulents.

Summer herds of pronghorns, comprising yearling animals and doe-fawn pairs, generally contain from five to twenty individuals, with a dozen being an average figure. Adult bucks sometimes accompany these herds, but more often form small bachelor groups of their own, joining the females in September.

Pronghorn bucks are sexually mature as yearlings and actively seek does during their first rut at 17 months of age. In healthy herds, however, the larger, older males do almost all the breeding. Antelope

does are generally considered fertile at 17 months, though a few will breed and conceive their first fall (at five months).

A mature pronghorn buck weighs about 125 pounds, a doe 110. Each stands about 34 inches high at the shoulder. The hoofs are padded to cushion the blows when the animal runs on rough ground. They have no dew claws. The rear hoofs are slightly larger than the front and probably bear most of the weight at high speed.

Both does and bucks have four interdigital glands (one on each foot) and two ischiadic glands (on the rump). In addition, the buck has a subauricular gland below each ear



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and a median gland in the middle of his back. All three play a role in courtship, and the subauriculars are used to mark territory.

Large hollow hairs make the pronghorn's winter coat a warm one. These hairs can be erected at will on any part of the body, increasing the insulating effect. The large white rump patch is often erected when danger is sighted.

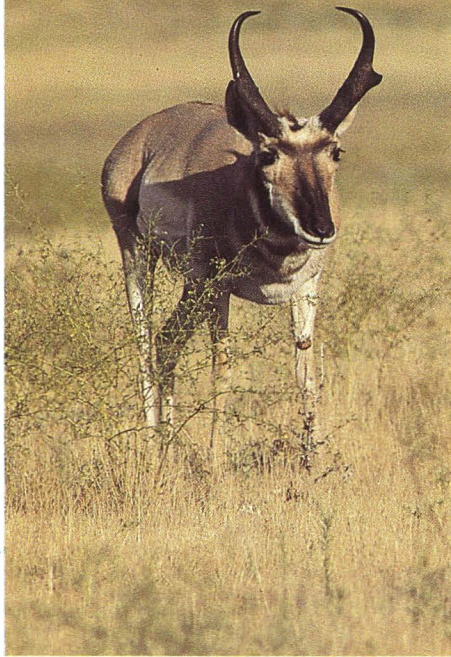
A pronghorn's main defense mechanism is its speed. Sprints exceeding fifty miles per hour are possible and quickly leave all animal predators in the dust. Large eyes, set high on the head, give a commanding, almost circular view of the open prairie. Antelope are quick to spot movement and can pick up even stationary irregularities at a surprising distance. The ears and nose are sensitive too, and, with those wonderful eyes, form a detection barrier that is tough to penetrate.

Pronghorns are light-boned, with a dainty demeanor and a hide so thin that it is worthless as leather. Nonetheless, they are hardy animals, thriving in terrain and weather that would soon finish other large ungulates. Heavy snow and extended periods of cold and wind can damage antelope herds, and where pregnant does are relegated to low-quality forage, fawn mortality may be very high. Coyotes, feral dogs, cougars, bobcats, and eagles will take young pronghorns, but few predators save man can routinely bring down adults. Fences impede migrations and account for many luckless antelope that become entangled while

trying to get through the wire. Automobiles take a significant toll in some regions. Occasionally, overworked range will cause starvation or malnutrition in adult pronghorns, but given the mobility of the species, this almost always occurs when a hard winter limits forage availability and animal movement. The average lifespan of a pronghorn is seven to ten years.



## ... Kansas prairie goats



Gene Brehm photo

All the Great Plains states had an abundance of pronghorns — perhaps as many as forty million — in the early 1800's; but the westward push of civilization spared little wildlife. By the turn of the century not only the bison, but antelope were in danger of extirpation. Though conservation measures saved both, only token bands remained in most areas.

In 1962 an aerial survey revealed only 56 antelope in Kansas. All were sighted in Wallace County. Fish and Game Commission biologists decided to beef up the pronghorn population by transplanting animals from other states.

The National Bison Range in western Montana provided 75 ante-

lope in 1964. These were released on two sites in Wallace County. Two years later 50 additional pronghorns were obtained from Colorado and released in Barber County. Some were subsequently moved to McPherson County. The following winter 85 Nebraska antelope were loosed in Ellsworth and Edwards Counties.

The success of these early transplants varied. The first, in Wallace County, took root, producing an annual population increase of roughly 17 percent the first five years and yielding a herd count of 250 animals in 1969. The eastern and southern plants were not as encouraging. Predators, automobiles, and domestic dogs accounted for some of the antelope, while others simply rejected their strange environs and headed west. Two does traveled 90 miles from their release site. This dispersion and the failure of another plant of 350 antelope in the late 1970's scuttled plans to build new herds east of the Arkansas River, though to this day a few pronghorns remain in the Flint Hills.

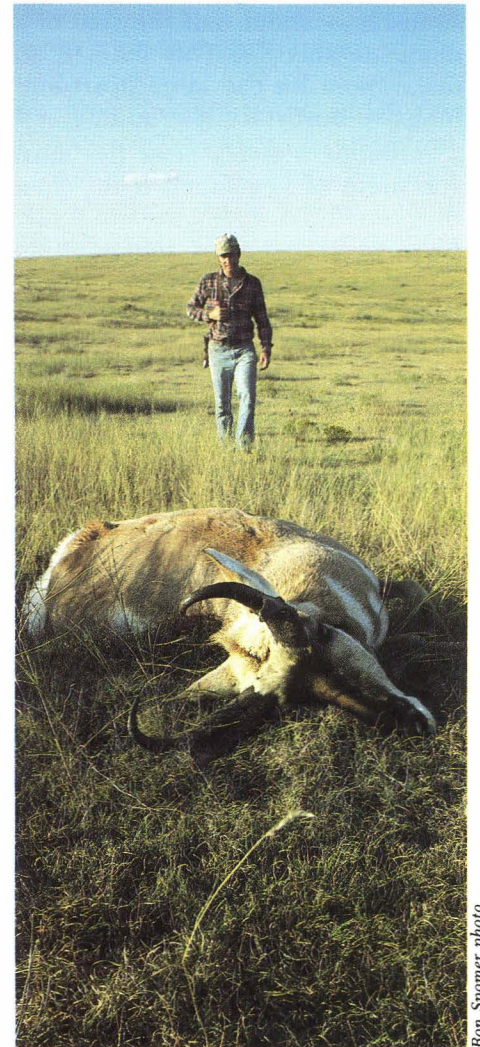
By January 1973, 531 antelope were occupying 250,000 acres in Wallace, Sherman, and Logan Counties in western Kansas. Biologists recommended an either-sex hunting season for 1974, with 80 permits to be allocated. That year, Kansas hunters took 70 pronghorns. All but two of the riflemen who actually hunted scored — a whopping 97% success ratio!

Herd numbers continued to climb, despite a similar season and harvest in 1975. In 1976, 50 archery permits were issued in addition to the 80 rifle tags. Bowhunter success was 17% — incredibly high for antelope.

In 1977 100 riflemen and 60 archers were allowed to hunt. Kansas' pronghorn population then stood at 845 animals, clustered in bands averaging 11 animals. Since that time pronghorn hunting has increased in popularity in the state. As they've become rifle-shy, Kansas prairie goats have added challenge to the annual hunt, which is as much

a population control measure as it is a favor to the sportsmen who support the herds. Hunter success has slipped slightly, though it hovers at a high 90 percent. Roughly one of seven bowmen scores. This year the southern boundary of antelope unit #2 will be extended south, from highway 96 to highway 50, opening new territory for pronghorn enthusiasts. Total tag allocations for 1984 are set at 150 archery, 420 firearms.

Whether or not you hunt these delicate prairie speedsters, their re-establishment in the Sunflower State certainly proves that sportsmen contribute tangibly to the game they pursue. And the steady herd increases of recent years show that hunting pronghorns, in the context of controlled seasons, is not only an acceptable but a desirable part of antelope management.



Ron Spomer photo