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SAVAGELY QUICK

Savage's new Impulse straight-pull centrefire rifle brings quicker, more natural reloading down to a tempting, more affordable price. In this issue Nick Harvey puts the Predator model in 6.5 Creedmoor through its paces after going through the design in detail. He finds it's not just practical, it's accurate and reliable.

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There are many ways to hunt foxes and Leon Wright has tried most of them.

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They say that when you sit and wait, you'll see a lot. Ted Mitchell Snr proves the point.

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Scott Spanton's chital hunt goes perfectly from the outset, and he even finds his new favourite ammunition!

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Leon Wright reports on the unstoppable rabbit, a pest with a place in our hearts and our sights.

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Savage Impulse Predator 22

Savage has entered the straight-pull market with the Impulse, a modular design that's fast to operate, accurate and affordable.

CZ 600 Alpha 30

CZ introduced what is for them an entirely new modular sporting rifle that is radically different to their previous Mauser-type hunting rifles.

Zeiss Conquest V4 1-4x24 38

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ON THE COVER

What's on the menu? A lip-licking fox by J Mrocek/Getty.






BULL BARS &
PROTECTION


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4X4 ACCESSORIES

Tangled up in the view

When it comes to aiming, apply the KISS principle: keep it simple, scope-wise.

HIGH-MAGNIFICATION scopes are amazingly good and have done more than any improvements in rifles and ammo to open up the possibilities for long-range shooting. They've also changed the way many of us use scopes, such as when we dial in reticle adjustment instead of guesstimating holdover.

The precision we can achieve at 200, 300, even 600 metres and more is astonishing.

There's a downside to this. No, I'm not going lecture about the ethics of lobbing bullets at way-too-distant animals. It's more about losing sight of how simple it should be to shoot out to between 250 and 350 metres, which is still a fair way in hunting terms.

Last issue Nick expanded on the idea of point blank range (PBR), which is simply how far you can shoot to kill without

doing anything harder than aiming at the centre of the target's chest. With most quick centrefire cartridges, dealing with the majority of game each respective cartridge would be aimed at, point-blank range ends somewhere between 250 and 350 metres.

You can even apply it to the humble .22 LR, albeit within much shorter distances.

It means you don't have to worry about holdover. Or dialling turrets. Or even measuring the range (unless you need to confirm it's not outside your PBR). Just point and shoot.

It means sighting in to be a little high at 100m. But I know several shooters who insist they have to be bang on target at 100m. Anything else is confusing. They lack confidence if their rifle isn't hitting the bullseye at 100m.

One of them can't hit anything much further away.



You might be surprised how far you can shoot without needing high magnification or holdover.

His bullets keep going low, even when he does try to aim high. Another one stuffs around measuring ranges and turning dials before he can shoot anything further than 100m, and half the time it takes too long.

Ignore the idea of point-blank range at your peril. You can still apply holdover or dial in elevation for genuinely long shots, but if you think you need to rely on it at close range you're losing sight of the simple things.

The same goes for using high magnification in scopes. I know you need it for properly long ranges, and it certainly helps with small targets, but for hunting within point-blank range we don't need much at

all. A 3-9x does the job perfectly for most hunting situations; I've got several rifles topped with even smaller scopes.

I've just reacquainted myself with the joys of shooting without magnification, as you'll understand when you read the Zeiss scope review in this issue. Low-power scopes provide quicker target acquisition, wider views and lots of other advantages that are easily forgotten in pursuit of a close-up view.

The lesson is to not let things get over-complicated or over-scoped when you don't need to.

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Letters containing questions for answering by Nick Harvey must be accompanied by a stamped self-addressed envelope. Mail your letters to: **The Technical Editor, 3 Reef Street, Hill End, NSW 2850.**

LETTER OF THE MONTH

CCI Velocitor

Q The guy at my local gun shop talked me into buying a brick of CCI .22 Velocitor rimfire ammo. He claims it is the fastest and hardest hitting rimfire ammo on the market. Is this true?
Charlie Dawes

A CCI Velocitor has a published muzzle velocity of 1435fps for a 40gn hollow-point bullet, and it has 1095fps remaining at 100yd. Resulting energy figures are 183ft-lb at the muzzle and 107ft-lb at 100yd, so I guess it could be described as being the most powerful .22 LR cartridge available.

I shot four five-shot groups with my Lithgow LA 101 topped with a Swarovski 6x36

A-series scope at 50 and 100 yards off the bench. The results at 50yd were groups of .75, .86, .90 and .70; at 100 yd groups measured 1.60, 1.40, 1.75 and 1.70 inch.

This is all the more remarkable for two reasons. First, there was a slight breeze blowing, and second, because high-velocity Long Rifle bullets travel in the trans-sonic velocity range. This is the worst area for accuracy – breaking the sound barrier at the muzzle and passing through it again on the way to the 100yd target. Radial dispersion from the centre was only .95” on the poorest group of 1.75”. For this reason, all match ammunition is subsonic to reduce wind drift.



The 40gn hollow-point bullet in CCI's Velocitor .22 LR ammo sings along at 1435fps. It's a hard-hitting rimfire.



Old Leica hard to go past

Q I've been offered a secondhand Leica LRF 800 laser rangefinder for \$350. It is like new and has seen little use. It doesn't have all the features of some modern rangefinders which do everything except play Advance Australia Fair, but it does measure the range accurately, which is about all I want one to do. Do you think I should buy it?
Ron Hobson

A I've had one of those Leica LRF 800s for 16 years and wouldn't part with it for any money, let alone a lousy \$350. The LRF's optical system provides a crisp, clear image under normal light conditions, although its 3mm exit pupil suffers somewhat in the poor light of dawn or dusk. For ranging purposes, however, its exit pupil is plenty bright. I often use my Leica LRF 800 as a monocular when I'm deer

hunting instead of carrying my larger, heavier Leica 10x42 binoculars. By all means buy it or miss out on a rare bargain.

German Voere

Q I recently bought a used rifle that I need scope mounts for. It is a Voere Voerrenbach Titan II in 7mm Rem Mag. It was made in Germany but I can find no information about it. The receiver is drilled and tapped for a scope base and it has no iron sights. Where can I get a scope mount for this rifle? What can you tell me about it?
Keith McGraw

A Voetter & Co began making rifles on Mauser actions in the 1950s. The business passed to Tiroler Jagd und Sportwaffenfabrik GmbH of Kufstein and continued under a Voere-Austria banner. In 1987, Voere-Austria sold rights to Mauser-Werke,

Oberndorf GmbH, after which the Titans were sold under the Mauser name. The action of the Titan II, which was introduced in 1976, was the same as that for the original Titan Model 2130 E, F, and St patterns, but the receiver was streamlined, a new safety (part of the trigger system) appeared behind the bolt handle and the contours were refined. The rifle was also sold under the Mauser 99 label.

Weaver lists bases for the Voere 2130, which I am pretty sure will fit your gun — number 28 front and back. Any rings made for Weaver bases can be used.

The little-known Browning Acera

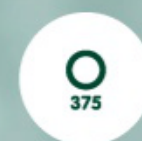
Q I've been offered a Browning Acera straight-pull rifle in .30-06 complete with 2-7x Kahles scope at a bargain price. I've asked a number of gun shops about this rifle and they all say

they've never heard of it. What can you tell me about it?

Dean Howard

A I reviewed the Browning Acera back in 1999 just after it was introduced. If you keep back issues of *Sporting Shooter* you'll find the write up somewhere from 1999 to 2000. The Acera is more or less a BAR whose action return spring and gas system have been eliminated. In their place, a handle on the bolt manually operates the action. A straight pull to the rear extracts and ejects the spent case; pushing forward strips a round from the detachable box magazine and chambers it. Only two motions, back and forth, just like the Blaser and Mauser 96.

I only remember the Acera being made in two calibres — .30-06 and .300 Win Mag — with 24-inch barrel. Open sights were optional, as was the BOSS system.



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Loads for .25 Souper

QI recently had an old BSA Royal rifle given to me by a relative who had no further use for it. The rifle has a nice custom stock and is mounted with an old Kahles 3-9x scope. The only problem is that it is chambered for a wildcat cartridge called the .25 Souper. Some fired cases that accompanied the rifle bear the headstamp .308 Winchester, so evidently cases were formed merely by necking down .308 brass and reaming the necks, but it appears to me that it would be easier to neck-up .243 cases. Can this be done? Also, what can you tell me about this wildcat? Can you suggest a good load with a 100gn bullet?

Ron McDowell

A Like the later .243 Win, the .25 Souper (also known as the .25-08) had an American-style short neck length of about one calibre (.250"), a gently sloping 20-degree shoulder and a throat .500" long — .258" diameter at the entrance and .257" diameter at the origin of the rifling, which had about a one-degree taper to the .250" bore.

The case held 48gn of IMR4320 or 52gn of Western Ball powder, with bullets seated to the base of the neck, which gave optimum loading density and expansion ratio.

Velocities listed for the .25 Souper in a 24" barrel were: 60gn bullet, 3950fps; 87gn, 3350; 100gn 3160; and 120gn, 2900fps. These are ballistics that I can shade with my long-throated .257 Roberts. And like in my Roberts, AR2209 powder provides the highest velocities.

As for a load for the 100gn bullet, I'd suggest starting with a charge of 44gn of AR2209 for about 3000fps and work up one grain at a time to 47gn, which should yield about 3150fps. With the 120gn bullet, start at 41gn of AR2209 for about 2700fps and work up



The 25 Souper, or .25-08, looks very much like a .243 but has slightly improved ballistics and handles heavier bullets.

to 44gn for about 2950fps. These maximum loads should be safe if your rifle has been chambered according to the designer's specifications.

Why clean your .22 rimfire?

QA bunch of guys at our local range got together and were arguing about how often we should clean .22 rimfire rifle barrels. We couldn't arrive at a consensus as to whether or not they should be cleaned at all. Could you shed some light on the subject of whether or not to clean them? If so, how often, how thoroughly and with what kind of cleaning gear?

Glen Morrison

A I reckon more damage has been done to the barrels of .22 rimfire rifles by cleaning than by neglect, particularly in this day of non-corrosive ammo. Here on



The simple fact is that for the vast majority of handloaders, the choice of primer matters not one whit."

the Central Tablelands of NSW, where humidity is low and salt air non-existent, I seldom clean my .22 rifles more than once a year. If you live near the coast, you might need some preservative in the barrel unless you keep the gun in a de-humidified safe.

Over the years I've found out a few things about .22s. First, a .22 will often shoot better with the bore fouled and will do so for long periods. Second, after a thorough cleaning it may not group as well for the first 10 to 20 shots and may even shoot to a different point of aim. Somewhat of a worry if your gun is a competition target rifle. Some centrefire rifles can be like this too.

If you own a quality .22 rifle and live in a dry climate, don't bother cleaning its bore until it really needs cleaning — unless accuracy drops off, or you plan on storing it away for a long period. Occasionally, you may need to clean the action and chamber, especially if you shoot wax-coated target bullets.

As to what to clean with, the steel in rimfire barrels is normally softer than in centrefire barrels and I prefer to use stiff nylon brushes instead of bronze brushes. A few passes through the bore with a nylon brush dipped in

gun oil, followed by a few dry patches, is usually enough to remove any powder residue.

One word of warning: don't use bore solvents which have ammonia. You don't need to dissolve metal fouling and it can damage your barrel if misused.

Black powder in the .45-70

QI am starting out to cobble up some reloads for my .45-70 Sharps using FFg black powder. The Lyman Cast Bullet Handbook suggests using a duplex load comprising 10 percent SR-4759 over the primer and 90 percent FFg black powder. They say that this technique results in slightly improved velocity compared to black powder alone and is cleaner burning. Can you tell me if black powder is measured by weight or by volume?

Greg Burns

A Black powder is measured by grains weight and most volumetric black powder measures nominally list the volume in grains weight on the tube. However, all volumetric measures should be checked against a scale because the graduations will have different values between the coarser Fg and FFg and finer FFg and FFFg black powders.

The important thing in loading black powder cartridges is making sure there is no air space between the base of the bullet and the powder. Either a compression die or a drop tube helps ensure the powder doesn't settle further after measuring and dispensing into the case. FFg can be topped with a .030" wad if necessary.

Also, with heavily compressed charges it is advisable to crimp the case because of the tendency of the bullet to back out once seating pressure is relaxed.

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Primer choice irrelevant

QI know you are using the RCBS/CCI Advanced Priming System (APS) which uses primers loaded in plastic strips. But what do you do with the strips after they are emptied? Also, what is the ideal depth to which primers should be seated? Is any one brand of primer better than the others?

Alan Muir

AI save all the empty plastic strips from the CCI/APS and load fresh primers into the empty strips using a machine that RCBS puts out for just this purpose.

Primers are an interference fit in the pocket and your priming tool must be set to seat them to the correct depth. If you seat your primers using the priming arm on your press, they will automatically be seated to the right depth. If they are not seated deeply enough and protrude above the case head, it can lead to misfires or malfunctions.

On the other hand, when primers are seated too deeply it can actually crush the priming compound and cause misfires or prevent ignition altogether. Ideally, the primer should be seated slightly below the base of the cartridge case — about .002" is desirable.

There is a lot of misinformation regarding primers being bandied about, most of it being handed down for decades. Some primer cups may still be slightly harder than others, but this is nothing to worry about. The simple fact is that for the vast majority of handloaders, the

choice of primer matters not one whit. They all ignite the powder and few hunters really need to worry about accuracy to the second decimal place.

For those who do, I can set their minds at rest. Every rifle, cartridge and powder is an independent variable, so there is positively no way to guarantee a primer that works in one specific recipe is going to do well in another. If you are really picky about such things, I suggest you waste time testing each variable.

Rare 1886 in .33 Winchester

QIn my family we have a Winchester Model 1886 chambered for the .33 Winchester cartridge. The action resembles the Model 1892, having lever-actuated vertical rising bolts, which gives the rifle great strength. I'd like to shoot the rifle but have been told no ammunition has been made for years. Can you give me any information about this rifle? What diameter are the bullets for it? Can I use .338 inch bullets? Could you suggest a bullet and load using a current powder?

Carl Lewis

AThe Winchester Model 1892 is just a smaller version of the 1886. The .33 Winchester cartridge was introduced in 1902 for the Model 1886 and discontinued along with that rifle in 1936. It was the first commercial cartridge to use .338" bullets and was the first smokeless cartridge for the Model 1886.

The cartridge was replaced by the .348 Winchester, developed

for an updated version of the 1886 called the Model 71.

The .33 Win factory load used a 200gn flat-nose bullet at a muzzle velocity of 2200fps. Bullet diameter is a true .338" and you may be in luck because Woodleigh made a 200gn FN SN bullet especially for the .33 Win; they may do so again in the near future once they get their factory up and running properly again after the fire there.

Cases can be made by carefully and gradually sizing .45-70 brass, first in a full-length .348 Winchester die and then through a full-length .33 Winchester die. These dies may be special order items.

You can duplicate the factory load with 45gn of AR2206H behind a 200gn Woodleigh bullet.

That old Model 1886 lever action is a true classic, one which has been revived by Winchester, Chiappa and Pedersoli. The 1886 in .33 Winchester saw widespread use by the legendary bear hunter Ben Lilly, who left home to kill a lion and only returned after 10 years.

Chambers and leades

QI have noticed that when writing about chambers for various calibres you invariably mention the 'leade' or 'lede', which I am sure has something to do with the chamber throat. Can you explain it a little more clearly for me, please, as I am unsure about what exactly the leade is. How can I measure its length?

Bill Stocks

AA rifle's chamber is cut in the breech end of the barrel with a tool called a

chamber reamer, which has an identical shape to the cartridge with part of the bullet seated in it. This reamer not only cuts out the case body, shoulder outline and case neck but extends into the bore to form the bullet profile area, which is technically called the leade or, more commonly, the throat. This is the portion of the barrel ahead of the chamber where the rifling has been conically removed to allow room for the seated bullet.

The distance between the end of the case neck and the origin of the rifling, which is the barrel's land diameter, is the pre-eminent variable determined by the reamer. Land diameter is the smallest diameter inside the bore.

If the first point of full land diameter (usually .2995" to .3015" in a .30-calibre barrel) is farther from the end of the case neck (farther into the bore) then the chamber has a longer leade or throat.

The bullet won't contact the lands until it reaches that point on the bullet that matches the bullet diameter. This is the first point of contact between bullet and bore.

The length of the throat has an effect on pressure. The longer it is, the farther the bullet must jump to engage the rifling, and pressure is reduced. You can find how long the leade is in a rifle by seating a flat-base bullet point down in a case, then gently pushing it all the way into the chamber and extracting it. The length of the leade can be found by measuring the amount the bullet is protruding from the neck of the case. 



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FOX HUNTING

There are many ways to hunt foxes and Leon Wright has tried most

More than one way to hunt a fox

The powerful beam of the spotlight pierced the cloud of dust that enveloped the 4x4 after Blake brought it to a standstill on my request. Swinging the arc of the light back along the stand of phalaris grass, I said quietly to Blake, “I am pretty sure I spotted the eyes of one just in front of the phalaris.”



of them. He reckons it's a great way to spend time in the Aussie bush.



Blake put his heavy-barrelled Remington 700 to good use, bagging most of these foxes.



1

I HAD, and I spotted them again. “There it is, just sitting there. Can you see it?”

“Sure can,” he said, quietly feeding a round into the .22-250.

“Just hold off for a second, I will try to bring it in a bit closer with the call. It might have a mate travelling with it.”

I gave a crank or two on the Scotch Predator call and got an instant reaction; actually, I had two, for another unseen fox was sitting just inside the phalaris. Both foxes were quick off the mark and within seconds a 200-metre shot became an easy 100-metre shot. Blake was quick to take advantage of the situation.

There was no need to ask if he got it. We heard a solid whack as the 55-grain projectile struck home. Blake was quick to reload, but not quick enough to get a shot at the fast-disappearing second fox that melted back into the phalaris. With his mutterings of a missed opportunity, I countered by saying, “One’s better than none, and

besides, we’ll be back again next week and we might find it further out in the stubble.”

The crops this year had been quite thick and the extra rain that had fallen since harvest made the task of finding the downed fox very difficult. After a bit of a search, we came across the big dog, partially hidden in some tomato weed.

He was the third one so far for tonight, and it left me wondering about fox hunting in general. The old fox is one of a few animals that offers hunters opportunities 24 hours a day, seven days a week. To my way of thinking, Australia would be a sad place without the sight of Brer Fox sneaking around the back paddock on an early morning.

There is no doubt that the fox is an environmental nightmare, especially as far as our small marsupials and birds are concerned, and I don’t think they are on the Aussie farmers’ list of popular animals. Every year I get a number of requests from local farmers who have been enduring a

fox’s night-time antics.

I do quite well out of my fox hunting. Apart from the pleasure of matching wits with a fox, I often receive from grateful farmers eggs, honey, ammunition, fuel, the odd sheep, all neatly packaged, and a few dollars to help cover costs.

My method of hunting the fox is governed mostly by the time of year. I generally get serious with my fox hunting late summer when I am often out in the bush during early morning or late afternoon, trying my hand at luring a fox in with a call. Being the hottest time of the year, my morning hunts are usually short excursions finishing around 9am.

I usually start as soon as it is light enough to see, thus catching the fox still out hunting, or at worst, on the way home after a busy night. Even if it’s on its way home, its curiosity will be strong enough to have it investigate the source of the wailing, no matter how tired it is.

Most of the area that I do my

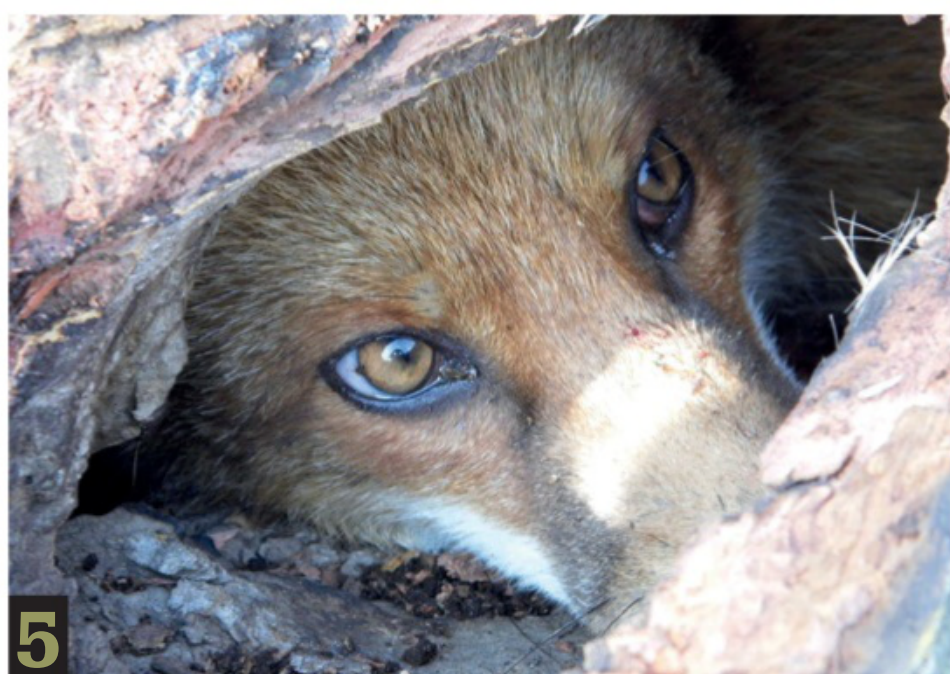


“

The fox is one of a few animals that offers hunters opportunities 24 hours a day, seven days a week.”

calling over is flat river country, interspersed with old dry water courses or creek beds that are usually full of all sorts of downed timber and scrub, all good places for a fox to hole up and sleep away the heat of the day.

One thing that I have noticed through years of hunting foxes is that they rarely look up when coming in response to a call. Mostly they have their noses to the ground, obviously searching for any tell-tale sign of the creature in distress that is making all the noise.



ON THIS SPREAD

1 Leon's Tikka T3 helped collar this bag of foxes during a hunting trip to central NSW.

2 When shooting is not an option Blake uses his den dogs to flush the foxes, with his lurchers doing the rest.

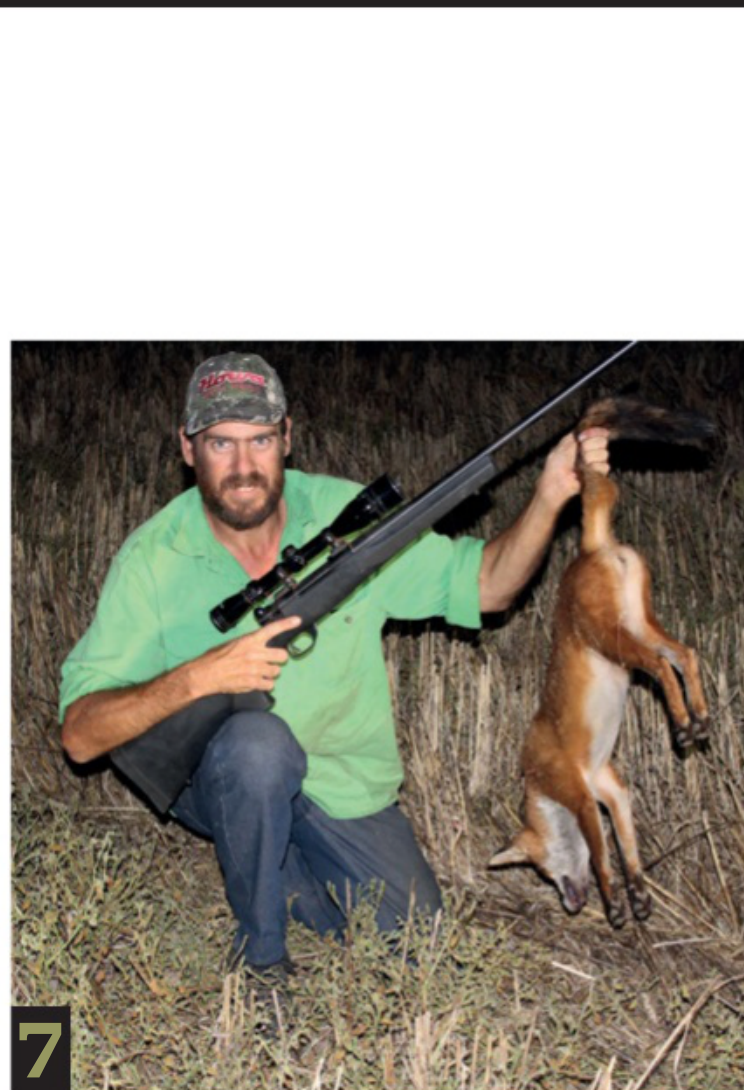
3 Mike, chuffed with taking his first fox on this fox drive.

4 Leon's favourite way of hunting foxes, luring them in with a Scotch Predator call before dispatching them with his Beretta 20-gauge shotgun.

5 This fox has got itself into a tight corner after being flushed by the dogs from a nearby stubble paddock.



6



7

“

My method of hunting the fox is governed mostly by the time of year.”

ON THIS PAGE

6 A lot of early-season foxes are from the previous year's breeding and respond well to a variety of fox calls.

7 As soon as the harvest is in we start spotlighting the stubble paddocks.

8 Leon has lost count of the number of foxes he has taken with a Scotch Predator call and Beretta 20-gauge shotgun.

With this in mind, I always look for a spot overlooking the area that I hope is holding a fox or two. If no such spot is present, a handy log is sufficient to give me that bit of added advantage to easily spot an incoming fox. The sooner you spot the fox coming in the better your chances of collaring it.

I mostly wear camo gear: a shirt, pants, face mask and, above all, gloves. You would be surprised how well you blend in with your background when wearing camouflage clothing and it is for this reason I always sit in front of a tree when calling foxes. The camouflage clothing will blend perfectly with the rough tree bark found on the old gum trees that are prevalent in the areas I hunt.

The reason for wearing gloves is that I will be more than likely using my Scotch Predator call and the camo gloves help to hide my hand movements. I have used the Scotch Predator call for quite some



8

time and had been using it for a number of years before I wrote the first product review for *Sporting Shooter* magazine featuring this call in the early 1990s.

Being river country, there are numerous stands of bullrushes. Foxes tend to favour these places of refuge and I rarely fail to draw the odd fox or two from them. Like most hunters, I have taken foxes with numerous calibres, but when out calling in relatively thick patches of scrub I tend to favour the shotgun, either a 12 gauge or a 20 gauge. A stiff load of shot from No 4 to BBs is bound to end a fox's days.

If it is too hot for early morning or late evening hunting, I swing back into spotlighting. While not

as exciting as calling, it will put foxes in the bag and besides, even if it is a quiet night, it still beats sitting around staring at the idiot box.

On days when it is too hot to be out after foxes, we leave it until after dark, when conditions are far more pleasant. A moonless night is best and preferably with little wind that can betray our presence. Seeing that 90 per cent of our night-time roving is around stubble paddocks, a flat-shooting centrefire is the firearm of choice.

While foxes have been taken with every firearm imaginable, we prefer to use the .22-250. A better firearm would be hard to imagine. The .22-250 has the ability to reach



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“

While the hunters wait at various points along the gully, the dog handlers climb up to the hunters.”

9

out across a stubble paddock to collar a fox that has been through it all before and is keeping its distance.

Back in the days when we were far more hare-brained and cared less for our safety, we would head out in a ute and when we came across a fox the hunter — and I use that term loosely — with the .22-250 had the first crack at the fox. If he missed then we would be after it with the self-loading shotguns. Very few foxes escaped one of these mad chases through a stubble paddock.

Come the colder months and the fox's thoughts turn to love. We mostly avoid the bitter cold nights in the back of the utility and start conducting another favourite of ours, the good old fox drive. The fox drive is a great day hunting with friends. Numerous teams head out on a regular basis.

Fox drives can be held anywhere and indeed they are. We alternate between the flat river country around our home area and the occasional jaunt into some magnificent high country in Victoria on private property.

There the drive concentrates around the gullies that divide the

10



ON THIS PAGE

9 Leon's brother, Mick, and Jack the labrador love participating in fox drives during the winter months.

10 Long dry creek beds, full of downed timber and thick undergrowth, are great places to conduct a fox drive.

hills, which are full of bracken and other scrub. It makes a great spot for a fox or two to hole up in during the day. While the hunters wait at various points along the gully, the dog handlers start at the bottom and climb up to the hunters, hopefully with the foxes moving in front of them.

Not everything goes according to plan as the old fox is no slouch and will try to elude the dogs and escape.

Needless to say, rifles are out. The best shotgun was the old self-loader but now we are limited in our choice. I like using heavy

loads of at least No 2 shot, as quite often a shot is taken as a fox is moving through heavy cover.

We also conduct fox drives in old river courses that are mostly dry with a lot of downed timber, often covered in what we call stink weed. These are favourite spots for foxes in our area and it is rare that we don't rouse a fox or two.

Without a doubt dogs are an advantage on drives and we take our duck dogs out with us. My curlies and my brother's labradors get very excited when they know a fox drive is on the cards.

A fox drive is relatively easy to conduct. You must have enough hunters to cover the escape routes. The beaters run the dogs through the heavy cover, pushing the foxes towards the waiting guns. Dogs with good noses will rarely miss a fox, but it does happen at times and the fox will try to slip back behind the beaters to freedom.

The waiting guns must have the wind, if present, blowing their way to be successful as even though the fox is on the run it will still be looking for danger in front of it. They are not stupid, by any means.

While these types of hunts are mostly the way we hunt foxes, at times we do the dens with Jack Russell terriers; we take the four-wheelers and lurchers for a run through large stubble paddocks; and another favourite of mine is a casual walk, upwind of course, on a frosty morning around the large stands of bullrushes that border our river country. With the dog beside me, it is a great way to spring a fox warming itself in a sunny spot.

Fox hunting is a great way to be out enjoying the Aussie bush.



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Acting on Impulse

Savage has entered the straight-pull market with the Impulse, a modular design that's fast to operate, accurate and affordable.





STRAIGHT-PULL rifles have long been popular in Europe for driven game hunts. The speed of a fast-cycling straight-pull rifle is ideal when game such as moose, deer and boar come running past, hotly pursued by a pack of hounds and beaters making a lot of noise. The action is fast and the speed of a bolt that is worked on a linear plane allows a smoother swing and faster follow-up shots at fleeting targets.

Previously, all of the available straight-pull centrefire rifles were made in Europe and they cost an arm and a leg. Blaser led the way and others followed. Over the years I've tested a number of straight-pull rifles: the Blaser 93 and R8, Mauser 96, Merkel Helix, Heym SR 30, Anschütz 1927 and Browning Maral, and I can't wait to get my hands on a Strasser.

All European rifles of this type are ingenious designs, well engineered, precision made, and show fine craftsmanship.

Now Savage has swum against the tide by introducing the Impulse, the first American-made straight-pull rifle. A modular design, it has all the bells and whistles of the competition. The Impulse offers interchangeable barrels, bolt heads and magazine systems, though kits are not

ON THIS SPREAD

1 With a stock tailored to fit you and its quick-loading straight-pull action, the Impulse is an excellent hunting rifle.

2 The action doesn't look very different from a turn-bolt but is arguably more practical.



I could not fault its speed of repetition, which is lightning fast."

yet available, but when they come you'll be able to swap calibres in minutes. The entire bolt-head assembly may be removed in literally seconds and exchanged for a bolt head for a different cartridge family.

While a long-action cartridge cannot be made to fit in a short-action Impulse, a long-action Impulse can be converted to handle a short-action cartridge. The Impulse is fully modular. For example, if you buy an Impulse in .300 Win Mag you can then buy a 6.5 Creedmoor barrel, bolt

head and magazine, and effect a changeover in a matter of minutes.

For instance, you can swap from a .30-06-size bolt face to a belted magnum bolt face. Or change direction and swap it for a .223 Remington. You can change the rifle from a right-handed configuration to a left-handed one, although you will have to contend with the right-side ejection port. However, after seeing a good many left handers shooting right-handed bolt guns, this doesn't seem to worry them.

RIGHT: The Impulse has an aluminium receiver with integral 20-MOA Picatinny rail, box magazine and excellent AccuTrigger.

BELOW: Pistol grip forms a natural angle for either left- or right-handers. Note magazine release at front of trigger guard.



The bolt handle and knob are separate components of the bolt body, and the handle can be inserted into a pinion-type gear from either side of the action, for either left- or right-hand operation. The design also allows the bolt handle to be aligned in four different angles for each side of the gun.

If you don't like the shape or feel of the bolt knob, the handle is threaded 5/16x24 and will accept aftermarket replacement knobs based on the same pattern.

The Savage design matches many of the features of the European straight-pulls — innovative engineering, versatility and speed — plus traditional Savage accuracy.

I've said it before and I'll say it again: I've never, ever seen an inaccurate Savage.

Savage utilised existing rifle technology and components from its popular Model 110 line as a basis for the Impulse. This gave the company a head start and streamlined production so that costs could be held to a moderate level.

The Impulse is made on automated machinery from the finest materials and its short-travel, smooth-operating straight-pull bolt-action offers serious competition to its European counterparts. Savage set out to develop an entirely new action. Like the company's turn-bolt Model 110 actions, the bolt head is a separate part



“

The Impulse's receiver is lightweight, machined from high-grade aluminium, black anodised.”

and is pinned to the bolt body, enabling it to 'float'.

Savage's engineers made the decision to construct the Impulse around a bolt with multiple locking lugs. They settled on a bolt head which features six 9/16" stainless-steel ball bearings evenly spaced around the floating bolt head to find equal bearing equilibrium.

This design was influenced by the Heym SR 30, which uses a similar six-ball arrangement.

Savage calls its version the Hexlock and employs a plunger that forces the ball bearings into a circular groove machined around the inside of a barrel extension as the bolt is

closed. When the trigger has been pulled or the release button has been pushed, the ball bearings are retracted, allowing the bolt to be cycled.

The bolt itself has other interesting features. The bolt release button, handily located at the rear of the bolt shroud, is a convenient feature that allows you to clear an unfired cartridge from the chamber with the safety still engaged.

To remove the bolt, push in on the top of the release button, draw back the bolt, push fully forward on the bolt release on the left side of the receiver and slide the bolt out of the gun.

To reinstall the bolt, make sure the safety is engaged and

ACCURACY & VELOCITY

Savage Impulse, 6.5 Creedmoor

Ammunition	Bullet (gn)	Velocity (fps)	Average group (inches)
Federal American Eagle	120 OTM	2886	1.05
Hornady American Whitetail	129 Interlock	2735	1.10
Federal Premium	130 OTM	2795	0.88
Federal Fusion	140 SP	2626	1.00
Hornady Match	140 ELD	2610	0.88
Hornady Precision Hunter	143 ELD-X	2632	1.10
Hornady Match	147 ELD	2595	0.80

Accuracy is the average of five 3-shot groups fired at 100yd from sandbags. Velocity is the average of 12 shots measured with a MagnetoSpeed chronograph. Ambient temperature 12C.



Bolt assembly features a separate head and provides the option of changing the bolt handle to either side.

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The Impulse is every inch a practical, well-designed hunter's tool with speed and accuracy on its side.



“

I've said it before and I'll say it again: I've never, ever seen an inaccurate Savage.”

the bolt is cocked by holding the bolt body in one hand and rotating the bolt handle to the rear as far as it will go. At its rearmost travel, the spring-loaded extraction plunger will be fully extended from the bolt shroud. Once the bolt is cocked, it will slide into the receiver smoothly.

As you close the bolt, the bolt handle rocks forward, driving an inner shaft forward to cam the Hexlock ball bearings out into the rotary locking groove. Pulled back, the handle rocks rearward for about an inch to unlock the bolt and allow the entire bolt assembly to be pulled back.

When forward in battery, the bolt locks in position whether the safety is engaged or not. The release button

serves double duty by acting as a cocking indicator.

The Impulse's receiver is lightweight, machined from high-grade aluminium, black anodised. It measures 10" in length and features a full-length 1913-spec Picatinny rail machined integrally with the receiver. Catering for long-range shooters, it has 20 minutes of angle built in. For testing, the Impulse was fitted with a Leupold VX-3HD 3.5-10x50 scope cradled in Leupold BackCountry steel rings.

The rear section of the receiver is slotted on the bottom to accept the AccuTrigger drop-in trigger housing which contains Savage's two-position sliding tang safety. The AccuTrigger

features the integrated AccuRelease, which must be completely depressed to discharge the firearm. On the test gun the trigger broke at 1.36kg (3lb) straight out of the box, so I left it alone. It can be set from 1.3-2.7kg (2.5-6lb).

On the right side of the receiver there's a generously sized ejection port some 35mm wide and 67mm long — large enough to allow a cartridge to be top-fed into the magazine.

A medium-weight, straight-taper, button-rifled, hand-straightened Savage 110 carbon steel barrel, with 5/8x24

muzzle thread, adds considerable heft to the Impulse. The barrel retains the barrel-nut design Savage has long used to control headspace, but there's a difference.

The barrel nut holds the bracket-type recoil lug in place against the receiver and also abuts the front end of a steel extension containing the locking recess for the Hexlock bearings. The rear end of the barrel slides through the extension by a barrel locking screw and then held in place by a four-bolt clamping

FAR RIGHT: The Impulse's barrel is fastened to its receiver using a clamping mechanism with four screws. In typical Savage fashion, a locknut is used to precisely set headspace.

RIGHT: The modular AccuTrigger assembly is pinned to the tang. The bolt release and safety are on top of the tang.





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The Predator version comes with a 10-round box magazine, in .22-250, .243, 6.5CM or .308.

mechanism. Because of the steel barrel extension, an aluminium receiver could be used to reduce weight, although the rear portion of the receiver has a steel insert for strength.

To remove the barrel, loosen the three rearmost screws. The front screw threads into a barrel locking block that must be removed. Do this by turning out this screw until the last thread or two, then tap it with a rubber hammer to shift the block out of its slot. Finish removing the screw and take out the block. Now the barrel can be slid out of the receiver.

In addition to a recess in the barrel extension where the locking block fits, there's also a small extension on the recoil lug that corresponds with a recess in the receiver, so you can't install the barrel incorrectly. But the barrel has

to be pushed fully into the receiver before the locking block will fit into its recess. All that remains is to tighten all four screws.

The Impulse Predator also features the AccuStock with AccuFit, which is basically an aluminium chassis embedded in a moulded synthetic stock. My test Predator has an attractive Terra Mossy Oak Elements camo pattern.

The AccStock's aluminium chassis incorporates a 'three-dimensional' bedding system which provides full-length support for the action on three sides along its entire length, and a steel block engages the recoil lug. As the Accustock's two action screws are tightened, the action is chocked inside a bedding cradle, which applies both horizontal and vertical pressure, preventing up, down, left and right movements.

The AccuStock's bedding cradle is slightly narrower than the receiver, and when the action screws are tightened, the side rails flex and conform to the outside diameter of the receiver, significantly increasing the clamping force of the receiver into the stock. The side-rails spread more than 0.010" before the receiver rests on the bottom rail boss, providing a solid foundation for the action to bed against.

To eliminate forward and rearward motion, the AccuStock's bedding cradle features a close-fitting cutout for the recoil lug in the aluminium rail. When the front action screw is tightened, it pulls the collar-type recoil lug against the rail, preventing any movement.

Accompanying the AccuStock is a system of interchangeable comb and length-of-pull inserts allowing shooters to customise the fit to an individual's build and suit different scope heights, arm lengths and lengths of pull.

The Impulse Predator has a 10-round metal AICS magazine and an alloy one-piece trigger-guard/floorplate unit with integral magazine well. The magazine release catch is a spring-loaded plate that fits flush against the front of the trigger guard. A thumb rest on both sides is pushed forward with the ball of your thumb to allow the heavy magazine to drop out.

The Impulse functioned smoothly and reliably. I could not fault its speed of repetition, which is lightning fast and on a par with all the other straight-pulls I've tested.

Summing up: the Impulse may have been a long time coming, but it is incredibly accurate, dependable and faster to operate than a standard turn-bolt. Like more expensive European straight-pulls, it can be had with additional barrels and bolt heads for a number of different calibres.

If you've been yearning for a straight-pull rifle, this one's your huckleberry! 🍷



Savage Impulse

Manufacturer: Savage Arms, USA — savagearms.com

Type: Straight-pull bolt-action repeater

Calibres: .22-250, .243 Win, 6.5 Creedmoor (tested), .308 Win, .30-06, .300 WSM, .300 Win Mag

Magazine capacity: 2-4 rounds in Hog Hunter, Big Game; 10 rounds in Predator but 5-shot magazines available

Barrel: 51cm (20"), 1:8" twist in 6.5 Creedmoor

Overall length: 105cm (43.5") std calibres; 116cm (45.5") magnums

Weight: From 4.0kg (8.8lb)

Stock: AccuStock

Length of pull: 32-35cm (12.75-13.75")

Sights: None; integral Picatinny rail

Trigger: Single-stage AccuTrigger, adjustable from 1.3-2.7kg (2.5-6lb)

Safety: 2-position on the tang

Price: Typically \$2500-\$2800, depending on dealer

Contact: NIOA, nioa.com.au

Impulse variations

The new Impulse is available in three different configurations: the Predator, in four chamberings from .22-250 to .308 Win; the Hog Hunter, in four chamberings from .308 to .300 Win Mag; and Big Game, in six chamberings from .243 to .300 Win Mag.

Mountain hunters be advised, lighter models are on the way.

When the bolt handle is pushed all the way forward, the cam at the rear of the bolt pushes a ram forward to lock the six ball bearings into their inlet in the barrel extension, locking the action ready to fire a round.



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The Alpha shoulders well and has raised ribs to aid grip.

A gun for all seasons

CZ introduced what is for them an entirely new modular sporting rifle that is radically different to their previous Mauser-type hunting rifles.

CZ HAS launched its new, innovative CZ 600 rifle, a different design of rifle to any CZ that went before. The 600 replaces all current CZ designs and copies some of the characteristics that have become standard on many economy-class bolt-actions on the market, but these rifles have interchangeable barrel systems, bolt head systems and magazine systems.

The CZ 600's receiver, both short and long, is machined from durable high-grade aluminium alloy or steel. My test gun's alloy receiver is 23.5cm (9¼") long and 4.1cm (1⅝") wide and all receivers have a guaranteed service life of 20,000 rounds.

The CZ 600 is offered with a choice of two different optic-mounting systems. My sample was flat-sided, angled like the Browning A-Bolt and had a short, integral Picatinny-spec rail atop the receiver ring and bridge. Alternatively, some 600s have the receiver drilled and tapped to take Remington 700 scope bases.

There's an ejection port in the right side of the action that's large enough to allow a cartridge to be thumbed into the magazine by hand.

The Model 600 has a

dual-column magazine which can be converted from a removable magazine to a fixed magazine; it can be locked into place simply by sliding the magazine release upward. A push-and-click loading system provides very smooth and reliable feeding of rounds.

Except for the spring, CZ 600 magazines are made entirely of polymer. While these magazines work with several different cartridges, for big changes you'll need a replacement one. For instance, the magazine in the rifle I tested handled 6mm and 6.5mm Creedmoor, 6.5 PRC and .308 Win. Because these rounds have the same size bolt head they will function from the same size magazine and only a barrel swap would be required.

The left side of the receiver is split and clamped around the chamber section of the barrel. It is secured by three large screws which are sealed with a red epoxy-like material. The bottom of the receiver is flat and has a transverse notch which fits closely over a recoil lug, which is part of the stock. A similar notch at the rear of the receiver engages a shallower lug protruding upwards at the rear of the magazine well. This set-up



A practical design combines with a large number of worthwhile details, including semi-controlled round feed, to make the CZ 600 a great hunting rifle.



Range tests inspired great confidence in the CZ 600, which shot many sub-MOA groups of five shots.”

ensures the action is well supported against any forward and rearward movement in the stock.

The new patented single-stage trigger is a superbly built unit inserted in a slot under the tang. Its rear end houses a unique vertical safety catch — a tube within a tube. A pair of round serrated buttons are visible at the top and bottom of the tang. The button is pushed down to make the rifle safe or up for firing mode.

The trigger is a single-stage design and has four different pull weights which can be adjusted without removing the stock by inserting a small 1.5mm hex wrench (supplied) into a dial located in front of the trigger. The face of the dial has a white dot to line up with any of four marks, indicating four different pull weights varying from 0.8-1.8kg (1.7-4lb).

My test gun had the trigger set to break cleanly at 0.9kg (2lb). That's too light for safety in the hunting field, so I adjusted it to let off at 1.36kg (3lb) — my personal preference.

The bolt release catch is a spring-loaded lever recessed into the right side of the bridge in front of the bolt handle. It pivots on a long linkage and is depressed to remove the bolt.

The CZ's bolt has three pairs of symmetrically spaced lugs, a length of 19cm (7½”) and a diameter of 2cm (0.785”). The interior of the receiver is free from raceways and the lugs engage locking seats in the chamber end of the barrel. The bolt stop rides in a longitudinal slot milled in the bottom of the bolt body, forming a guide system for the bolt.

The upper half of the bolt face is shrouded by the two upper lugs while the lower section is left open to have a combined controlled-round/push-feed system. There are rifles out there that claim to have controlled-round feed that are really just push-feeds with full length extractors. The CZ 600 isn't one of them. As the cartridge leaves the magazine, the rim slips under the sturdy 5.8mm (0.230”) extractor, which holds it firmly until it is ejected from the action.

Cams cut on each locking lug render enough displacement to close on a cartridge without serious hesitation. The steel bolt handle is straight and has a 60-degree lift to clear a low-mounted scope.

Despite the rifle's abbreviated bolt rotation, its cam systems operate at peak efficiency and the bolt handle lifts just as easily on an empty chamber or a fired cartridge.

A gas port in the side of the chamber aligns with a gas port in the receiver ring to vent gas escaping from between the locking lugs. It helps that the shoulder formed on the bolt helps confine escaping gas to the receiver ring. Gas entering the firing pin hole is handled in an equally thorough manner, being expelled outward through a port in the bolt body 4cm (1.55”) from the bolt face at the rear of the receiver ring.

Any residual gas flowing back along the bolt is released through a hole on each side of



ABOVE: The trigger unit is housed in a slot in the tang. The integral safety works up and down through a tunnel in the tang. ABOVE RIGHT: The CZ 600 Alpha is modern in appearance with a high comb and vertical pistol grip which are user friendly.



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“A modular design, the CZ 600 can be converted to use a different cartridge family.”

the root of the bolt handle. Finally, any remaining flow is shrouded by the solid bolt sleeve. In all, a thorough and positive gas handling arrangement.

The extractor is an angled claw type which sits in a narrow cut in the side of the bolt face. Rather than being sprung inward by the usual arrangement of a coil spring working at right angles to the extractor, which is too often subject to binding even from slight imperfections or tool marks on the parts, it is controlled directly by a vertical wire spring anchored near the base of the bolt head.

The ejector resembles a

plunger type, but is actually a manually activated blade type. If you want to salvage your brass, open the bolt slowly and the fired case simply falls out; yank the bolt back fast and the case gets pelted far and wide.

An alloy bolt sleeve caps the rear of the bolt. Its exterior is not only contoured to blend perfectly with the lines of the receiver, but it fits up against the bridge so closely as to almost resemble a continuous piece. The bolt knob is large and round like a soccer ball and free from chequering.

The CZ 600 Alpha has a cold hammer forged barrel 51cm (20”) long which is rated as being medium-heavy. It has a

diameter of 27.3mm (1.076”) at the receiver ring and gently tapers to 18.3mm (0.720”) at the muzzle, which is threaded to attach a brake, flash hider or sound suppressor.

Barrels have an optimised length for each different calibre and a medium-heavy or light profile according to the intended purpose of each specific model — big game hunting, varmint shooting or target shooting.

A modular design, the CZ 600 can be converted to use a different cartridge family, one that’s compatible with the length of the receiver. After removing the bolt, the entire bolt head can be removed in

ABOVE: The one-diameter bolt has six equidistantly spaced locking lugs which engage seats in the rear end of the barrel. It is necessary to first remove the firing pin assembly before the bolt head can be removed by sliding it out to one side.

ABOVE LEFT: The Alpha is the entry-level 600 model, featuring modern European styling.

ACCURACY AND VELOCITY					
CZ 600 .308 WIN					
Ammunition	Bullet (gn)	Velocity (fps)	Accuracy (inches)		
			Smallest	Largest	Average
Deer Season CEP	150gn	2680	0.95	1.25	1.10
Defense Tip	150gn	2714	1.00	1.45	1.22
Super Suppressed	168gn	1056	1.10	1.24	1.17
MatchKing HPBT	168gn	2515	0.96	1.15	1.05
Power Point	180gn	2445	0.96	1.25	1.10

Accuracy results are averages of four five-shot groups at 100yd. Velocities are averages of 20 shots measured with a MagnetoSpeed chronograph.



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.222 Rem, 22-250 Rem, .223 Rem, .243 Win, .270 Win
.308 Win, .30-06 Spring, .300Win Mag, .375 H&H



LEFT: The barrel slides into a split receiver and is retained by three screws that clamp it tightly in place. BELOW LEFT: The alloy receiver has short Picatinny bases fore and aft to take Weaver-style ring mounts. Note generous ejection port and bolt release catch in front of bolt handle recess. BELOW: Bolt design is a very close and attractive match for the receiver and stock.



✓ SPECS

CZ 600 Alpha

Manufacturer: Ceska Zbrovska, Czech Republic

Type: Bolt-action, modular design with interchangeable barrels

Calibres: .223 to .300 Win Mag; tested, .308 Win

Magazine capacity: 5 rounds

Barrel: 51cm (20") cold-hammer-forged, medium heavy, 1:10" twist

Overall length: 102cm (40")

Weight empty: 3.2kg (7lb)

Stock: Fibreglass-reinforced polymer

Length of pull: 35.5mm (14")

Finish: Matte black metalwork and stock

Sights: Picatinny rail machined integral to receiver

Trigger: Single-stage, adjustable from 0.8-1.8kg (1.7-4lb)

Safety: Two-position

RRP: \$1695

Distributor: Winchester Australia, winchesteraustralia.com.au

literally seconds and exchanged for another head that suits a different cartridge family.

For instance, you can swap from a .30-06-size bolt head to a belted magnum bolt face. Or go the other way and swap for a .223 Remington. To remove the bolt head you simply twist the bolt sleeve clockwise, slide the firing pin assembly out of the bolt body, then push the ejector button forward to release the bolt head, which is slid out to the side. Reassemble in the reverse order.

The barrel profile can only be changed if the stock design is compatible. When barrels are changed, retention of accuracy is guaranteed after the first shot. Barrels are a press fit into the front of the action and are clamped solidly in place by tightening the three cross-bolts in sequence.

CZ has issued a warning about the changeover of barrels; it must be done by a qualified gunsmith. If you attempt to do it yourself, you will forfeit your warranty. To enforce this mandate, CZ barrels and spare parts will be made available only to gunsmiths.

All external metal surfaces on the 600 series are given

CZ's new Bobox chemical heat treatment, a hard, durable finish that's corrosion resistant.

The stocks for the 600 series are another departure from CZ tradition. Made of polymer, the Alpha model's stock features a very high, straight comb and a slim, vertical grip that allows the righthand thumb to ride high on the left side of the grip. The trigger guard is moulded integrally. There's no cheekpiece and the nose of the comb is deeply dished on either side.

The hollow forend is squarish and, like the grip, has angled flats on the bottom and upper edges. The grip panels have a series of raised rib-like lines rather than being stippled or checkered. Two recoil lugs are moulded in together with the sling swivel studs.

A soft, hollow, rubber recoil pad with a Monte Carlo dip at the top absorbs and softens recoil. Length of pull is 35.5cm (14").

As tested, my Alpha .308 weighed at 4.1kg (9lb) with Meopta MeoPro Optika6 3-18x50 SFP (second focal plane) scope in Recknagel Q/D Weaver rings. This heft is manageable for a sporter.

Initial range tests inspired great confidence in the CZ 600, which shot many sub-MOA groups of five shots with Winchester factory ammunition; it is guaranteed sub-MOA for three shots. The outfit was comfortable to shoot off the bench, the trigger excellent, and the bolt easy to operate, with each round feeding smoothly from the magazine.

The velocity of Winchester ammunition is taken in a 61cm (24") barrel and I expected some loss in the short 20" barrel. Big surprise! The 150gn loads actually gave slightly higher than their stated velocity.

You can expect similar performance from the other models in the 600 series, which I covered back in the April 2022 issue.

Summing up, the entire CZ 600 range is an exciting, new and innovative concept, based on the premise that there will always be riflemen who like distinctive rifles — something a bit different yet one that conforms with an individual's preference in looks and feel, and a high standard of accuracy. For these people, there's a CZ 600 to suit.



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Short & sweet

The Zeiss V4 1-4x is a low-power rifle scope that packs a high-power punch.

ON THIS SPREAD

- 1 Conquest optics are beautifully clear and bright all the way to the edges. We're looking at goats 140m away, on 4x.
- 2 Adjustments are in ½ MOA increments, which is fine enough for a short-range scope.
- 3 The 30mm tube contains a 24mm objective lens. The Zeiss is a very compact scope.
- 4 The left turret provides adjustment for the brightness of the red dot in the middle of the crosshairs.
- 5 Fast-focus diopter is handy, while grippy magnification ring is easy to move.
- 6 You can comfortably shoot with both eyes open on 1x, especially with the diopter focus to balance your vision.

THE Zeiss Conquest V4 1-4x24 has characteristics that are essential in a low-power riflescope if you're going to get the best from it, chiefly excellent clarity and a true 1:1 ratio at its lowest magnification.

The clarity of the view ensures the low magnification doesn't become a handicap because your target is clearly defined in the distance and easy to see.

The genuine 1x magnification at the bottom end gives you the both-eyes-open shooting ability that makes red-dot sights so effective.

Any low-power scope without both factors in its favour fails to fulfil the potential in this kind of optic, in my opinion. The littlest Zeiss V4 does fill all the

potential, being a scope that will serve you extremely well at very close range, on running game and at ranges of a few hundred metres.

Admittedly, you need confidence to shoot at an animal 300m away with a mere 4x magnification, but the fact is you're no less likely to hit than if you used 12x, as long as the 4x scope gives you a good enough view. The Zeiss T* coatings on the Conquest tweak the colours and increase the contrast to produce a significantly more well-defined view in which targets stand out better than they do to the naked eye.

With a second-plane reticle, the crosshairs remain fine at full magnification, so they do not obstruct the target. The intersection of the wires in the #60 reticle covers a 2.5cm square at 100m on 4x magnification, a tiny bit less than 1MOA, so at 300m range it's covering the equivalent of about a 7.5cm square on your target — probably a smaller area than what you can expect your bullet to land in unless you and your rifle are really good.

And it's well within the kill zone of a fallow deer or pig, so

making a successful long-ish range shot is just a matter of confidence.

Of course, it's true that if long shots were the main goal you probably wouldn't buy a 1-4x, so let's talk close ranges.

The beauty of the V4 is it has true 1.0x magnification at the bottom end, not 1.1x or 1.5x like many scopes. This means you can comfortably use it in lieu of a red-dot sight, shooting with both eyes open. This increases your field of view and situational awareness, speeding up target acquisition, improving success on running game and boosting safety in fast-flowing scenarios.

And unlike a typical red-dot, the diopter can be focussed to your eye to make up for any poor vision, a big advantage for those of us with longsightedness, for example. I had to give up my beloved red-dots because of middle-aged eyesight, but the Zeiss brought this kind of shooting back into my life.

Having the dot illuminated during 1x shooting gives you the edge but of course you can choose to light it up at any magnification, when it serves to quicken the process of



aiming as well as helping no end as the light drops and the crosshairs fade against an ever-darkening background. The stepped illumination levels go from the dimmest glow up to very bright, catering to any amount of ambient lighting.

Zeiss's glass is excellent, with clarity and contrast that enhance your view noticeably. The Conquest provides a claimed 90 per cent light transmission, almost as good

as it gets. In very low light on 4x magnification you might see a little dimming if your own eyes have dilated further than the 6mm exit pupil size of the scope but wind back to about 3x and its exit pupil will be larger than your pupil.

Whenever I used it in fading light the Zeiss was always as clear as I'd expect it to be.

Edge to edge, the view remains sharp. Considering the view is 38m wide at 100m on 1x, and still 9.5m wide on 4x, you

can see a lot of ground! Target acquisition comes quickly.

The V4 has a 30mm main tube (the 24mm objective lens is contained entirely within the main body). The wider tube allows about 100 MOA of crosshair adjustment.

Each click of the turrets moves the point of aim 1.4cm at 100m, or close enough to ½MOA. In a low-power scope designed for medium to large game, that's fine enough to get the results you need. The



Zeiss Conquest V4 1-4x24

Magnification: 1-4x

Effective lens diameter:
12.1-24mm

Exit pupil: 11.9-6mm

Twilight factor: 3.5-9.8

Field of view: 38-9.5m @ 100m

Eye relief: 90mm

Tube diameter: 30mm

Length: 256mm

Weight: 470g

Advertised price: Around \$1500
but varies greatly

Distributor: OSA Australia,
osaaustralia.com.au



clicks are sharp, so easy to feel. The turrets can be lifted to re-set to zero once you've zeroed your rifle.

For the most part I used the Zeiss on a 9.3x62 Sauer 100 hunting rifle, which seems an eminently sensible setup. The scope's 90mm of eye relief was plenty for the recoil of the cartridge. For a while the Zeiss topped a .308 Ruger Scout, making an excellent combo for culling mobs of goats and pigs. I'd be unlikely to run it on a rifle intended for shooting smaller, more distant targets.

There's lots more to say about the little V4, including that it's shock-tested and built very strongly, as well as to high quality standards.

The Zeiss Conquest V4 1-4x24 scope fulfils its role perfectly, mainly because of its true 1.0x base magnification, its great clarity and the fact that all its features are worthwhile and they work as they should. 



Dylan looking cool and keeping warm in a vintage wool shirt in the field in late autumn.



The trick is keeping warm without sweating too much.”

Some of the newer blends are also working in the direction of drying faster and being softer than before.

To add to the old-school vibe, I like to check used clothing websites for vintage wool garments that need someone new to give them a second life. The patterns on them are retro but do a fantastic job of breaking up your outline. Besides keeping me warm in a variety of situations, I like the way they look.

It's fun to be different sometimes. Turning up to hunting camp in a shirt that looks like a blanket that's come off grandma's bed is a bit of fun and that's what hunting is all about, if we're honest.

Give some wool clothing a try, if you haven't already.

Until next time, enjoy living your wilderlife. 📍

Follow Dylan on Instagram at ‘_wilderlife_’

Good ol' wool

Woollen clothing is still some of the best hunting clobber you'll find.

AS I work on my traditional archery skills I find myself becoming interested in other traditional hunting methods and materials. Hunters in 2022 have access to a variety of materials, technology and products that is so vast the possibilities can be overwhelming.

With each year that passes, hunting companies boast about the latest and greatest products they release and the fear of missing out on something new and exciting finds me seriously considering upgrading my gear, just because!

What I usually find is some of my old-school stuff that's worked forever is still my favourite.

Since moving back to the Northern Tablelands of NSW a handful of years ago, I've been spending a lot more time outside in the brisk weather. We all want to keep warm while out bush, but just keeping warm isn't usually

much of an issue. The trick is keeping warm without sweating too much, as well as being in clothing that allows you to be mobile and flexible.

For this reason, even in some of the coldest mountains I frequent, a puffer jacket is only useful when sitting down for long periods. Any time I try to hike in a puffer jacket — whether it's filled with down or synthetic insulation — I cook myself.

Other forms and styles of synthetic clothing have presented similar problems for me. Some of them breathe well but tend to feel sticky when I sweat, and as soon as a breeze hits them it's savagely cold.

After doing some research into what might suit me best, I kept finding information about wool clothing. The more I read, the better it sounded! It retains warmth when wet and is antimicrobial, natural and sustainable.

I find it bizarre that you don't hear people — hunters or otherwise — talking much about wool clothing. Is the grass always greener?

It's not all roses; wool is more expensive than most synthetic options, it takes longer to dry when it gets wet, and unless you fork out for a nice base layer, most of it may feel scratchy on your skin. It's very durable stuff, however, so I like to spend big on the base layers and wear them under thicker wool shirts. It has taken me years to come close to wearing some of it out.



Dylan opts for a wool jacket and beanie in the mountains in winter.



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(Pic: Tima Miroshnichenko/Pexels)

LEFT: Low-capacity semi-auto shotguns are still extremely popular and practical outside Australia, and have been for decades

The right equipment

Volunteer pest controllers like you need access to better equipment

THERE is an extremely good chance that if you're reading this, you are a volunteer pest controller. Have you shot rabbits, foxes, pigs or goats on a rural property? That's pest control. Did you get paid for it? Of course not. Therefore you're a volunteer.

And we think you should have access to Category C firearms so you can do it more effectively.

As we all know, farmers, primary producers and "occupational users" can access pump-action shotguns and semi-auto .22 rifles for managing their properties (or for other legitimate work reasons). The rest of us have to make do with bolt-, lever- or break-action guns, even when it's clear they're not the best tools for the job.

It's no secret our firearms laws are written by people who get their knowledge of guns from movies and video

games — why else would something as innocuous as a pump-action shotgun or a Ruger 10/22 be restricted?

While our laws might make sense to people (mostly in cities) whose idea of visiting the country is going to the local show once a year, the rest of us know Cat C guns are genuinely needed to deal with the significant biosecurity threat posed by pest animals.

Many of us will have been confronted with a mob of feral pigs and realised the five rounds in our bolt-action rifle's magazine are woefully inadequate to deal with them before they escape back into the bush, or watched rabbits scattering at the first gunshot and being gone before we can get the action worked and recover the sight picture.

The fact we're not getting paid to deal with these pests doesn't change the fact we're still conducting pest control

and helping our primary producers — who only have one set of hands, after all, and can't be everywhere at once on their properties.

There will be people out there who say, "You just want to make it easier for shooters to get semi-auto rifles and pump-action shotguns!"

And to that we say: So what? We're talking about semi-auto .22 rifles and pump-action shotguns, not letting people mount a Browning M2 .50-calibre belt-fed machine gun on the back of their ute.

Let's not forget: Every single shooter in Australia has a firearms licence issued by their state police. They've been through a background check, done the safety course, demonstrated a genuine need for a gun, and are required to keep their guns locked up where unlicensed people can't access them. Does it really matter what sort of gun

they have, having gone through all that?

Frankly, it's ridiculous that a Category B licence will let someone own a .416 Rigby bolt-action elephant gun but not a .22 LR Ruger 10/22 semi-auto rifle; or they can own a Remington 7600 .308 pump-action rifle but not a Remington 870 pump-action 12ga shotgun.

Even New Zealand, which has recently had a significant tightening of its firearms laws, still allows regular shooters to own semi-auto .22 rifles and pump-action shotguns, so there is absolutely no reason whatsoever (besides ignorance, spite and political point-scoring) to keep them away from licensed shooters trying to do their part for our environment back here in Australia.

We're constantly hearing about the issues feral animals cause in Australia. Every time, hundreds of thousands of licensed shooters across the country say they want to help. However, the governments go out of their way to stop us, and they restrict access to effective and vital ways to do so.

Volunteer pest controllers like you perform a vital service to Australia's primary industry sector and play a critical role in protecting our biosphere and natural environment. Managing feral pests is a vital element of biosecurity and we strongly believe anyone who is doing that — either as a volunteer or a professional — should have access to the equipment they need to properly fulfil that role. ☎

Graham Park is the president of Shooters Union Australia.

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WINNER

“On a recent Sunday stroll across some family friends’ fat lamb property in the Central Tablelands of NSW I was able to pick off a few unsuspecting ‘mutton mungers’ using Fiocchi .223 55gr soft points out of my Howa 1500,” says Mitch Kelly. “All three shots had roughly the same point of impact at just under 100 metres. The disappointing thing about the last couple of trips is that not only are fox numbers healthy but the number of wild pig sightings is increasing and this could be devastating to the local grazing community.

“With that said, I thought I’d enter myself into the competition to win a rifle that has a bigger chambering than .223, to help the graziers who are becoming more concerned daily about the threat of foot and mouth. I hope to clean up a few porkers before they get a foothold in areas they’ve been absent from for some time.”

Mitch, with this pic, you’ve earned that bigger rifle. Get your PTA application in because you’ve won this month’s Weatherby!



“Keen junior hunters, Jacob (15) and Daniel (13), were without a firearm at the time they caught sight of this wild billy in our blue gum block,” says their proud mum, Alysia Sanderson. “Their patience paid off when they were able to stalk him on foot and bare-handedly wrestle him home to despatch him using a Marlin .22 magnum and Fiocchi ammo.

“His horns measured just under 30 inches. They skull-capped him for a trophy to hang in their cubby.

“We regularly see wild deer and wild pigs in our neck of the woods but he’s the first wild goat we’ve sighted.”

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Andrew Collis took this big sow out at Taroom, Queensland. "It was a great night spotlighting and we came across some piglets running around," he says. "Anyway, a quick stalk and spot and they led us to a nice-sized mob rooting around. My Tikka made quick work of this sow running away at speed. It was yet again another great hunting adventure."

Eighteen-year-old Tom McCahon only recently got his Cat A and B licence and he's done himself proud already! He shot this red stag on a solo hunt, using Fiocchi's 180gn .308 load. Well done, Tom.



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PLEASE NOTE: this competition is not a game of chance. To achieve entry, photos must be submitted to the satisfaction of the Sporting Shooter editorial team. All entrants must be over 18 years of age and need to be suitably licensed as per individual state firearm regulations and requirements. The firearms will be issued to winners through licensed firearm dealers upon sighting a permit to purchase. Firearm industry staff, paid shooting publication contributors and staff are not eligible to enter this competition. For full terms and conditions please visit sportingshooter.com.au/wfphotocomp



THREE MONTHLY RUNNERS UP WILL WIN A CAP AND STUBBY HOLDER!



Wet feet and one deer

Andrew Collis finds beauty in the New England Tablelands, but not much else!

MY son and I headed to Glen Elgin earlier this year, in the hope of finding some deer. I have been an avid hunter for many years. We were lucky to stay in a cabin on a property for a few weeks, taking in the beautiful landscape.

We walked a lot of kilometres around the 60,000-acre property. We had two weeks of rain and a hard slog to find deer.

Unfortunately, the weather was not cold enough to trigger the rut, which was due but just wasn't happening. It was hard to locate any sign of activity.

Persistence paid off. I was successful in nabbing this young buck late one night in the rain, walking through a paddock with my Tikka 6.5x55 Swede. My first deer. My son and I were very excited.

Despite the hardships, it was an amazing trip with a lot of learning for both my son and I. Many fine memories created. A most enjoyable hunt.

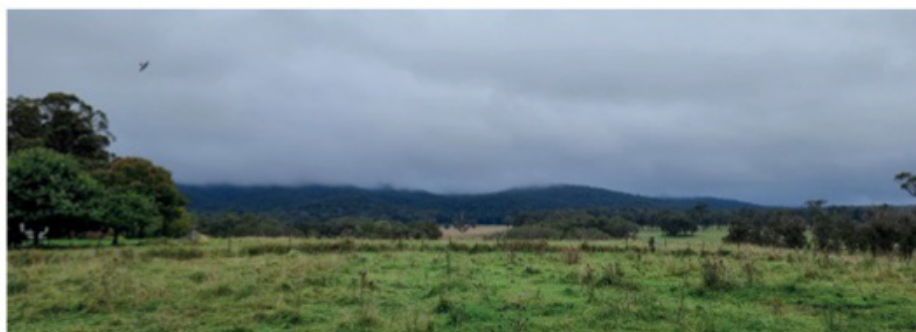
Glen Elgin, on the edge of the Gibraltar Range near Glen Innes, NSW, is a stunning place — a little different from Central Queensland, where I am from.



ABOVE: Andrew's first deer, and a well-earned one at that!



BELOW: The countryside around Glen Elgin is beautiful but Andrew and his son copped a fortnight of wet weather.



LEFT: Prime deer country but not prime deer weather.

VORTEX



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Velocity: How much is enough?

The goal is always for faster bullet speed, but how much do you need and what are you willing to lose for it?

MANY hunters are obsessed with bullet speed and worship at the altar of ultra-high velocity. Whenever a hot new cartridge or loading is introduced which launches a bullet out of the muzzle faster than its predecessor, gun nuts start running around in circles and baying at the moon. Inevitably, they praise every new hotshot to the skies, and it is heartily recommended as a cartridge worth buying.

Manufacturers release every new speed demon with a fanfare of trumpets, and gun writers are obligated to lavish it with praise.

The implication is that an accurate laser rangefinder, a high-magnification tactical-type scope and a more accurate rifle with heavy barrel will make a 1000m shot as easy as falling off a log. Of course, this

is all made possible by higher muzzle velocity, which offers an edge for those shots at game way out yonder.

Anyway, that's the way these guys are wired to think.

Scant consideration is given to bullet weight, ballistic coefficient (BC) and the great amount of propellant consumed, let alone muzzle disturbance, bore fouling and throat erosion.

Gun writers rarely mention the shooting problems associated with muzzle blast and recoil. When did you last read an article which mentioned such things as 'magnumitis', Weatherby eyebrow or badly overbore capacity cartridges. Such things don't rate a mention by hunters who are hypnotised by hyper-velocity figures.

One way to increase muzzle

velocity is to use heavier charges of powder but, to keep chamber pressure within safe limits, you've also got to have a larger case. This yields the desired result in terms of higher muzzle velocity. Roy Weatherby started this trend back in the 1940s and it has evolved in recent years into ever larger rounds such as the .30-378 and .338-378.

We also have the STW, Remington Ultra Mags and, more recently, Nosler's line of super magnums. The increase in velocity is not entirely the result of larger cases and powder charges, but also to an increase in allowable chamber pressure. Modern magnums are loaded to higher pressure levels, up to 65,000psi in some instances.

Another way to increase muzzle velocity is to simply lighten the weight of the

bullet. This has been done with standard cartridges, too.

When it comes to taking game, particularly game at long distances, there are more things to be considered than bullet speed. In fact, this whole subject of taking game cleanly has become more complex due in part to recent introductions. We'll discuss that later.

First, let's take a look at big-game cartridges. A hunter influenced by all the high-velocity hype he reads, and who naturally covets the latest and greatest, buys a rifle for a king-size cartridge like the .30-378 Weatherby Magnum. Just a brief glance at this giant big-cased round is enough to convince you that it will really reach out and deliver a powerful enough punch to drop a mammoth in its tracks, should one happen to pop up anywhere



When it comes to taking game there are more things to consider than bullet speed.”

on this side of the horizon.

Let's consider some hard facts. I use the computer program Load From A Disk because it evaluates cartridge differences without the human biases that otherwise would be difficult to avoid. Let's specify a Nosler 180gn AccuBond bullet, a 24-inch barrel and 60,000psi chamber pressure to compare the giant .30-378 with the little .308 Winchester.

In essence we will compare the smallest and slowest against the biggest and fastest popular bolt-action .30-calibre cartridges today. The rabid gun nuts will scoff and say there can be no contest between two so differently sized rounds.

Obviously, we cannot standardise on a powder because the same powders are not optimum for both cartridges. I tried to pick an

optimum powder for each cartridge and settled on AR2218 for the .30-378 Why Magnum and AR2208 for the .308. According to Load From A Disk, a compressed charge of 45gn of AR2208 provides 59,300psi chamber pressure and 2665fps muzzle velocity for the .308. The .30-378 requires 112gn of AR2218 to get an almost identical pressure of 60,036psi chamber pressure for 3151fps.

That's a 486fps advantage for the larger cartridge. What more needs to be said?

Using LFAD's companion trajectory program, we can also compare downrange ballistic figures for 400 yards (366m) — the longest distance at which

I consider a sporting maximum on big game. Let's see how big an advantage the .30-378 offers over the lowly .308.

1. Velocity

At 400yd, the velocity for the .308 is 2007fps, while the .30-378 has 2421fps. There is still a huge velocity difference at this range, yet neither cartridge has enough impact speed for positive bullet upset with today's bullets.

2. Energy

The .308 has 1610ft-lb of energy remaining at 400yd, while the .30-378 has 2342ft-lb. Either energy level is adequate even for sambar or moose at that distance.

ON THIS SPREAD

1 The midget and the giant: comparing the .308 and .30-378 provides enlightening observations about which is better.

2 Large-cased magnums with ultra-high velocity are favoured by many riflemen, but muzzle pressure and muzzle blast grow in proportion to velocity increases, making the rifle difficult to shoot well.

3. Trajectory

With both rifles zeroed at 250yd, the .308 is 48cm (19") low at 400yd according to the program, while the .30-378 is 33cm (13") low. It's not hard to hold a little high on an animal the size of a deer to make up the difference of 15cm (6") at 400yd in the field.

4. Wind deflection

In a 16km/h crosswind the bullet from the .308 is blown 30cm (12") off course while the .30-378 bullet is blown 24cm (9½") off course. If you can guesstimate 6cm (2.5") at 400yd shooting from a hastily assumed field position and dope wind that precisely you're a better shooter than I am.

5. Recoil

Recoil with this load in a 3.9kg (8½lb) rifle-scope combination amounts to 22Nm (16.2ft-lb) in the .308 and 47Nm (34.4ft-lb) for a 4.2kg (9½lb) .30-378 — more than twice as much, which makes a big difference in having a rifle that's mild to shoot and a rifle that the average shooter will find difficult to shoot accurately.

6. Muzzle blast/pressure

The .308 produces 490 bar (7119psi) of muzzle pressure while at 1087 bar (15,760psi) the .30-378 produces twice as much blast. Even the most

blasé gun nut would have to admit that the larger round is very likely to cause flinching both in terms of blast and recoil.

There are of course other drawbacks such as bore fouling and accelerated throat erosion, things that are harder to measure or calculate. Nonetheless, barrel life of the .308 is likely to give 3000 rounds of hunting accuracy while the .30-378 would be lucky to last 800 to 1000 rounds. Of course, if the .30-378 rifle is used only for trophy hunting, it will last a lifetime.

The true believer will cry foul, saying that a 24-inch barrel is not standard for the .30-378 and a longer 26-inch barrel is needed to obtain the real advantage of the larger case. This is true. And you can add a muzzle brake to reduce felt recoil, although it will increase the rifle's muzzle blast to an uncomfortable level unless you wear ear muffs, and who wants to do that in the field? It also increases barrel length and adds weight to an outfit that usually has a heavy barrel and large target-type scope so that recoil may be reduced a bit more.

Only a dyed-in-the-wool gun nut and velocity freak would plump for a heavy and cumbersome rifle that is awkward to handle, ill-balanced and a burden to carry. In fact, a rifle in .30-378 would have to weigh about 10kg to equal the recoil of a 4kg .308.

So we are talking about a rifle to take sambar-size game beyond the 400yd mark and you reckon the .308 is running out of steam at that distance. Experts agree that you need about 2000fps of impact velocity for positive bullet expansion and at least 1500ft-lb of striking energy for game the size of wapiti, moose and sambar.

But how many deer of any size have you ever taken at 400yd, let alone beyond that distance? I can count the deer that I've taken beyond 200yd on one hand. Nor did I need a



A rifle that you can shoot well is one you are likely to do best with in the field.”

cartridge as large and powerful as the .30-378 Weatherby to do it.

A friend in Victoria told me he has observed those who attempt to take game at extreme range and was not impressed. He has seen how sloppily those kills are made, often with a first crippling shot and one or more finishers delivered much later.

He's also seen a deer hit and wounded across a wide gorge, where the hunter struggled to reach it and was unable to locate the wounded animal when he got to the spot.

In his opinion, it is not really sport hunting.

The experienced hunter knows that as range increases, precise bullet placement becomes increasingly difficult. This is not only true

on the range, but shooting conditions in the field often make extended-range shots largely a matter of luck. My own preference is to get as close to the game as possible before taking a shot. There's more satisfaction in making a successful stalk and clean kill than trying a risky shot at ultra-long range.

The truth is that there are a lot of standard cartridges that do not require a heavy, ungainly rifle and are comfortable to shoot by the average hunter.

I have used a wide selection of cartridges, including a number of magnums, and found downrange margins of effectiveness to be surprisingly small, without adding a longer barrel and heavier rifle for the larger cartridge. While the large magnum benefits from a longer 26" barrel and a muzzle brake (adding another 3"), the .308's performance is not hampered that much by even a shorter 22" barrel. And the difference between a rifle with a 22" barrel and a 29" barrel definitely handicaps the foot hunter.

The .308 has the advantage of fitting in a shorter, compact action, and the shorter chamber means there is more

LEFT: A standard-weight rifle chambered for a moderate cartridge like the .270 Winchester usually suits the average hunter best.

effective bore travel for the same barrel length. The smaller cartridge does not burn large powder charges like the larger cartridge does, thus the bore lasts longer and does not foul as readily.

While this treatise compares extremes in cartridges, you will undoubtedly find that an in-between cartridge will work best for you. Most shooters find that about 20-27Nm (15-20ft-lb) of recoil is their upper limit in a 3.9kg (8½lb) hunting rifle. What it means is that something like the good old .270 Winchester, .30-06 or .280 Ackley Improved might be a better choice.

Today's bullets are far more efficient than they were a few years ago. The Barnes X-Bullet construction, for example, offers bone-smashing power and deep penetration with less bullet weight than was once necessary. Bonded-core controlled-expansion designs from Nosler, Hornady and Swift have higher BCs and deliver excellent downrange performance.

Having said that, there is no question that higher velocity improves downrange energy, deflection and trajectory and that more powder drives the bullet faster. But how much more velocity does one need to gain a modest margin of practical advantage? And at what price?

The key factor in taking game at any distance is shot placement. A rifle that you can shoot well is one you are likely to do best with in the field. A rifle in .270 or .308 is not only easier to hit with but to carry than one chambered for a super-magnum class cartridge.

While velocity is important, velocity alone does not give us the edge we are led to believe it does. 

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They say that when you sit and wait, you'll see a lot. Ted Mitchell Snr proves the point

A day at the dam

My son Brenton and I headed out to where one of my other sons, Scott, was trapping wild dogs/dingoes in far western Queensland. The farmers out that way had a lot of problems with the dogs killing stock, so they'd formed a syndicate and, along with the local shire council, they were paying a pretty good bounty for the offending dogs.

RIGHT: This sow was just about ready to give birth.







“

It was just an awesome experience, sitting there with game coming so close.”



SCOTT had trapped about 20 dogs so far and had been seeing heaps of wild goats and pigs while setting his trap lines. The farmers had asked him to shoot any pigs he could during his trapping duties, even offering to pay for his bullets. Brenton and I decided to spend a week with Scott and help him a bit with his trapping, plus spend a couple of days hunting pigs. One day I walked to a remote dam where the wild goats had been coming in to water, as I really wanted to spend a day trying to get some decent photos of goats and pigs etc.

With a folding chair strapped to my back pack, along with two cameras, a tripod, some munchies, drinks and a book in case it got a bit slow, I had the boys drop me off a short distance from the dam. Sneaking in, as there were already goats everywhere, I managed to get into a decent spot without disturbing them too much.

Pack off, I set up my chair under a nice shady tree. One camera sat on the tripod in front of me and my rifle sat handy beside it in case a really big boar came in. Hopefully, I'd get some decent video footage, too.

At this dam there is a small gate which could be closed off, along with the other gates, whenever the farmer wanted to trap goats. On the other side of the dam, the gates were wide open, yet nearly every goat and pig that came in to drink went in via the small gate and out through either the small gate again or one of the open gates on the far side of the dam. Getting them used to the small gate being their way in to the life giving water would pay dividends later on when the farmer wanted to round up a few.

As the day warmed up, many more goats began coming to water in small and sometimes large groups. Pigs were coming in from different directions all the time, too. At times there were pigs and goats together, so sitting quietly just a few metres away I was able to take some awesome photos and footage of wild animals in their natural state. It was great and I only wished I had a bow and arrows with me on this trip, as it would have been easy to have arrowed a nice-looking large-spread goat on many occasions.

Pigs came in as close as ten feet

from me at times. One small boar came right in to check me out. Being only a few feet from me, he kept putting his head down, then quickly looked up and walked further around me until suddenly he must have got my scent and took off in a swirl of dust.

Having my Weatherby .300 Magnum with me, I could easily have shot a couple of really big billies, but that was the trouble — it would have been far too easy, so I was content just to take their photos instead of shooting anything. Anyway, firing a loud rifle would have spoiled the lovely quiet of the day, possibly scaring more animals away.

While taking photos of a particularly nice-coloured billy, a small mob of pigs walked in and then on through the gate for a drink. There were some heavily pregnant sows among them.

At times I was even able to take a photo of pigs and goats in the same frame.

Sitting there in comfort, busily snapping photos, the time flew by too quickly. It was just an awesome experience, sitting there with game

ON THIS PAGE

1 Check out my new hair-do, darling!

2 Brenton (left) and Scott with Spud, while chasing pigs.



BROWNING X-BOLT STALKER FLAT DARK EARTH

The X-Bolt Composite Stalker's flat dark earth colored stock is made from tough, composite material that can take a beating. The stock is textured for a secure grip from forearm to pistol grip. It also has a comfortable palm swell. This long range model also includes an adjustable comb system that makes it easy to place your eye in correct scope alignment with larger, long-range optics.

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The X-Bolt Composite Stalker is an excellent rifle choice for hunting in conditions where you may not wish to take the traditional walnut stocked rifle.

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BROWNING
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“

I saw many goats that were injured in one way or another from dog attacks.”

3

**ON THIS
PAGE**

3 Ted broke the silence to kill a billy with a broken leg.

4 This young boar came right up to Ted, wondering what he was.

5 A sportsman's paradise: goats and pigs — even a crow in the foreground.

coming so close. Even the top-knot pigeons and plains turkeys came in really close. Some emus came in and wandered within a few feet of me, giving me that quick look, then turning as if to walk away and suddenly turning for another look at me. They couldn't work out what I was, so went on about their business as if I wasn't there.

I was hoping for a dingo to wander in for a drink, as it would have been on my menu to shoot, for sure. The lad was getting \$500 for each adult dingo, so I'm sure he would have liked me to have knocked one of these pests for him. None came in to drink; all that came in were heaps and heaps of

goats, probably in the hundreds, and at least 50 pigs in small mobs, mostly sows and slips and only the occasional small boar.

Another small boar walked right up to me, staring hard, moving a bit and then staring again, eventually moving on.

It was strange in that most of the goats went in and out through the same small gate, while the pigs seemed to want to go in through the small gate and out through the double gates on the far side of the dam.

It's not often that you get to watch this many goats and pigs in the same small area, so naturally I made the most of it.

Trying to work out what time the

pigs came in for water was a waste of time, as they started coming in really early in the morning, when I first got there, to right through the day, at any time at all. During the nine hours I spent sitting there taking photos, animals arrived at almost all times

I took hundreds of photos and a few short video clips. Only about 10 pages of my book got read, so I must have been having fun.

The farmer actually liked to have the goats here and didn't really want them shot for no good reason, but he had given permission for my sons to arrow a couple if they could with their Hoyt and Matthews compound bows. At a spot not too far from this dam, Brenton had managed to shoot a nice 40¾-inch billy with one arrow and then later that same day he had stalked in and arrowed a beautiful trophy goat of 46¾-inch spread. The goats' horn sizes were very deceiving, as they often didn't curl much but were very heavy and long. This, along with the massive size of the goats' bodies, made their horns look smaller than they actually were. You could tell they were very



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long though when one horn was near the length of the animal when standing with head turned side-on.

As the day wore on I started to become a bit blasé and was snorting at the goats, getting them to pose for a photo, and some actually came right in to see what this strange thing was.

Late in the day, a goat appeared to my right, coming in from the thick turkey bush and he was limping very badly. One of his legs was virtually broken off, the way it flapped about when he tried to put weight on it, probably from a wild dog attack. I saw many goats that were injured in one way or another from dog attacks. Maybe he'd been chased and caught his leg between some of the fallen trees, braking it?

We had seen many goat carcasses that had been the result of dog attacks, but I suppose that's better than it being the farmer's sheep.

Anyway, this poor devil was having real trouble walking. Feeling sorry for him, I decided to put him down to end his suffering. From just 30 yards, he collapsed when hit by the .300 Weatherby. I do hate to see an animal suffer.

At the shot, a couple of pigs took off from just to my left, so seeing as I had already made enough noise to



8

ON THIS PAGE

6 Walking back from the dam.

7 Two billies fighting.

8 A nice pretty coat on this shaggy billy.

scare anything away, I blasted them too to keep the farmer happy. They weren't large pigs but a pig's a pig, especially when the farmer wants them gone.

The billy had a fair set of horns on him but not nearly as large as some I'd seen earlier. I hung its head in a tree. It's probably still there today.

It took only around half an hour before more goats arrived. The shot didn't seem to have worried them at all, or the pigs, as they kept rolling in. I stayed a few more hours, relaxing, taking photos, eating, drinking and trying to read my book.

A nanny walked past me with

the weirdest hair-do I have ever seen on a goat. It looked for all the world like she was wearing a wig. I laugh every time the photo comes up on my computer screen.

"Have you read much of that book?" someone suddenly said. My sons had sneaked up on me. They'd taken my photo while I was taking a goat's photo. It was time to get moving.

A week flew past pretty quickly and the drive home would have been pretty uneventful had we not hit an emu at 100km/h, putting my wheel alignment out and tearing a rubber boot on the steering arm. Since that trip, the farmer rounded up as many goats as he could and sold them. The next time we went there, we were lucky to see even one goat. A shame, but I suppose they paid for a new LandCruiser and a bit of farming gear.

Scott headed up to Cape York, where he will be guiding safaris for three and a half months, before coming back and getting stuck into the wild dogs and dingoes once more. What a life, but I suppose someone has to do it. When he heads back out, I'm sure that I and my bow will be heading out there to visit him. I might just get to spend another day at the dam. 📍



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CHITAL HUNTING





Ascent on the chital

Scott Spanton's chital hunt goes perfectly from the outset, and he even finds his new favourite ammunition!

Chital are incredibly beautiful. For years I've wanted to pursue a nice rack for the wall and a cape for the floor. So I booked a one-on-one guided hunt with NC Trophy Hunting in Far North Queensland, over four days with one trophy stag included in the price.

BEING a chital novice, I asked lots of questions of my guide, Nick, during the six-hour road trip from Cairns airport. After listening, I had my heart set on a 28-inch trophy or better, with pretty much straight-up antlers — what he called ‘typical’ shape. Nick preferred the non-typical shape with a bigger bow, bending out and more rounded at the side. Each to their own.

Nick has held the #1 stag in Australia on numerous occasions and his clients have shot some monsters, too.

We arrived around noon and were unpacking the Patrol when Nick saw a distant bunch of hinds, so we went for a look. It was just a girls’ club with a couple of small bachelors. An hour later, in a slightly elevated voice, Nick said, “Wow, that looks to be a reasonable stag joining them.”

We crept to about 250m and that stag looked good — very typical and straight-up. Nick thought it was a solid 28 inches.

Then I saw him — another stag that I was immediately impressed with. He was a much more rounded, non-typical shape with lots more girth and a bit of palmation for the upper tines.

“I’ve changed my mind, Nick,” I said. “That’s the shape I want!”

I had that saying ringing in my ears: Never pass up on the first day what you would happily take on the last day.

We snuck behind some trees down to the bank of a river and were 140m from the deer. The wind was in our favour and they had no idea we were even there. I grabbed the Spartan Precision bipod and took a prone position on the bank. With a 200m zero, anything within 250m is basically just a hold-and-shoot situation for the .300 WSM.

Once I located my stag he looked even more impressive under higher magnification. This was it then. Better not mess this up.

He was side on but with a tree blocking his vitals. I could see his head, neck and about the first 10cm of his chest. The stag-fever side of my mind was racing: Do I risk a shot at that smaller vital area? My



rational brain retorted: Calm down stupid, he doesn’t know you’re here and will move along as he grazes.

I had a very steady position and kept my scope on him as he ate. Geez, he was impressive! He moved out. Game time. He went two metres then stopped and resumed grazing. The crosshair was steady on the centre of his shoulder and I squeezed. The shot was good.

He reared up on his hind legs and then just dropped. Not another movement.

“Nice shot!” came Nick’s confirmation.

Close up, the rack was super impressive and the spotted hide was just so beautiful.

I couldn’t get the smile off my face. This was exactly what I was after. We measured him at 30 and 29 inches long with a great 27.5-inch span — all up, around 187 points on the Douglas Score, to be confirmed. At 180 points, it would make the top 50 stags in Australia.

I am a new convert to heavy-for-calibre, high-BC (ballistic coefficient), controlled-expansion projectiles for larger game and longer range hunting. For my .300 WSM, I settled on the Federal Terminal Ascent with 200gn projectiles coming out at 2670fps. It is a bonded-core bullet with solid copper shank, polymer tip and a very high BC of .608.



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ON THIS SPREAD

1 Stalking the open country of Far North Queensland, where a flat-shooting cartridge is a distinct advantage.

2 Scott's two trophies: a bowed stag of potentially 180+ Douglas points and the spear-like antlers of a four-pointed cull stag.

3 The culled stag they called Wonky, for obvious reasons!

4 Chital have a particularly tall 'dorsal', the height from spine to backline, and a shot through here may knock out your target but not kill it.

“

Nick could spot a chital from incredible distances. Where I saw nothing, he saw bedded stags.”

Despite a small entry and exit wound, the Terminal Ascent projectile worked great. It entered the centre of one shoulder and exited through the centre of the other after probably creating massive hydrostatic shock waves through his vitals and all-round carnage on the way through as the bullet started expanding. That stag was dead instantly. Impressive.

What a start to the trip! What's next?

Nick manages and improves the deer populations on the properties he has a concession on by culling inferior stags when they present themselves, to stop those genes being passed on; or by culling

hinds when the numbers become too great.

For a small extra fee, I could shoot some cull stags. Great! That's good for me and good for improving the future quality of the stags. Like doing Darwin's work but on the fast-tracked course! I wanted a cull stag that had a more typical shape, more vertical.

We saw lots of deer that afternoon and watched and learned as we went. Nick could spot a chital from incredible distances. Where I saw nothing, he saw bedded stags. I had lots to learn!

When we were glassing from a high ridge we spied a pair of distant stags moving away

reasonably quickly. One was unique – and not in a good way! He had two of the wonkiest antlers I have ever seen, growing out at weird angles with stubs where there should be tines – something only his mother could love. It was as if he been drinking from the nuclear pond in the Simpsons.

Wonky was in full velvet. Gee, he would be a good story and, as Nick said, he needed to be out of the gene pool! We headed down but Wonky and his mate were motoring like they wanted to get to the next suburb. Bugger.

Later, glassing a different group, Nick excitedly said, “There! He's gotta go!”

5



“

I would definitely pay another trophy fee for a bigger one — I was addicted!”

It was a tall four-pointer, missing his inner tines, which turned him into a lethal weapon when he was challenging other superior stags. When normal six-point stags lock horns, the upper/inner tines lock together and it becomes a battle of strength, with some cuts from the lower tines and uppers. A four-point stag's antlers are like long spears that don't lock in with their adversary. Many superior stags die a painful death from stab wounds that become infected.

Nick wanted him off the station. To me he looked good: nice and vertical with good length, even with four points.

By the time we got set up in a suitable spot the stag was making an exit and had hit 280m. I dialled up to 300m and settled in behind the rifle. Nick was telling me from behind, “Better hurry up, he's close to 350m now.”

Calm down and get this done, I said to myself. I found the stag in the scope at four-power and dialled up to around 18x before I placed the crosshairs on the back of his neck and squeezed the trigger. He dropped immediately — turned out to be a Texas heart shot that shattered his pelvis and kept driving. He propped up on his two front legs and turned towards us. I didn't need any more encouragement so sent one slamming into the front of his chest, which shut his lights off.

Turns out he was 340m and that cartridge had done a perfect job again.

That night we had plenty of

stories to recap and celebrated with a big Barossa shiraz and cigars that I had brought along. Couldn't have asked for a better first day!

We agreed to search next day for a pig or an even bigger trophy than my one. I would definitely pay another trophy fee for a bigger one — I was addicted!

As it was, that never happened, but by the final afternoon I had my trophy stag, some good cull stags and a couple of boars under my belt, so we went looking for Wonky. I didn't have high hopes but when we were glassing the region we'd last seen him, Nick said excitedly, “There's Wonky! Running our way!”

It was as if Wonky had been stirred up by something. Dingoes maybe? His buddy was nowhere to

ON THIS PAGE

5 A couple of Terminal Ascent projectiles Scott retrieved from deer. The one on the left travelled from tail to neck, from a bit more than 50m; on the right, penetrating 60cm from shoulder to shoulder.

6 Even in this country, chital can disappear if your eyes are not practised and your binoculars not good.

be seen — just Wonky flying solo. He kept coming and then went out of sight, though I still hadn't seen him. I grabbed the rifle and Nick grabbed the tripod and binos and we started walking in the direction of where he last saw him. Now this was exciting!

We came around a clearing and Nick whispered excitedly, “Take it here, take it here, he's going to spook!”

I had no idea what he meant but then I got it — Wonky was up ahead and I needed to take the shot off the tripod, and quickly! I haven't used tripods much but managed to get it sorted out. The shot rang true and Wonky dropped; didn't move a muscle. The cartridge and projectile performances were faultless again.

We got our man! Who would have thought? Nick is a legend at finding these critters.

This had been a fantastic trip. Nick is a chital whisperer and all-round good guy. He couldn't do enough to look after me and came prepared for everything. Seeing the performance of the Terminal Ascent cartridges in a variety of real-world situations has totally sold me on them.

I had commissioned a custom-build 7mm Rem Mag that I intended to take to South Africa for plains game but after witnessing the devastating effect of the .300 WSM with the Terminal Ascent ammo, I am definitely changing the plan to take the .300! 🎯



6

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SPECIES GUIDE: RABBITS

For a casual rabbit hunt Leon likes nothing more than wandering around hunting with his bolt action CZ in .22 rimfire.

The relentless rabbit

Leon Wright reports on the unstoppable rabbit, a pest with a place in our hearts and our sights.

Ever since 24 wild English rabbits were let loose in Victoria in 1859 and became a country-wide plague, we've had a love/hate relationship with bunnies. Loved by hunters, despised by pastoralists and environmentalists, one thing is for sure: the rabbit is here to stay.

THE rabbit (*Oryctolagus cuniculus*) is a tough little critter that fights well above its weight. Don't be fooled by its diminutive size of between 36 and 48cm and weight of around a couple of kilos. It has fought off everything we have thrown at it.

Millions of rounds of shotgun and .22 rimfire ammunition, not forgetting other calibres, have been expended in the vain attempt to lower their numbers. We have held rabbit drives, trapped them, gassed them, poisoned them, used ferrets, ripped their warrens apart and unleashed deadly viruses such as myxomatosis and calicivirus and the rabbit is still hanging in there.

In utter desperation, to protect its agricultural land, the Western Australian Government built the rabbit fence in 1901. This fence extended from Port Hedland in the north to Esperance in the south

and took six years to erect.

Desperate times call for desperate measures. The introduction of the myxomatosis virus brought an almost complete halt to the rabbit in Australia. It was lauded as the saviour of agricultural landowners, and it indeed looked that way as it exterminated around 98 per cent of the rabbit population.

Myxo was so devastating that many hunters gave the game away as they reckoned there were not enough rabbits around to warrant the time and energy needed to hunt them. No matter how you look at it, myxomatosis is a horrendous virus but, as I said, desperate times call for desperate measures.

However, the rabbit soon built up a degree of immunity to the virus, hence the introduction of the sinister 1080 poison, which is splashed around like lolly water.



LEFT: Leon hunts rabbits in many ways but favours hunting them with a shotgun over his curls.

ABOVE: A good dog is a real asset for flushing as well as retrieving rabbits.

SPECIES GUIDE: RABBITS

It was followed by the calicivirus and its variants.

HABITAT AND BREEDING

As can be seen by the map, all states have some concentration of rabbits within their borders, with the heaviest densities in the eastern states.

Australia's climate is perfect for rabbits, hence their prolific breeding, which usually starts in the late winter. Kittens appear in early spring, with their numbers peaking in early summer.

While I have hunted them over all sorts of terrains, I have always found the heaviest concentrations where there are sand hills covered in pine trees. Rabbits seem to love these conditions.

Interestingly, while the rabbit was, and is, an environmental disaster there was quite an industry surrounding it for a long time. The rabbit is delicious to eat, its fur was keenly sought after, and its uses were many. There is no doubt that the rabbit kept food on the table for many families during the years of the depression and many people made a living out of shooting rabbits; some continue to do so right up to the present day.

Rabbit fur was popular for coats, gloves, canvases for painting, book binding and even gelatine; its uses seem endless. Indeed, our iconic Akubra hat and other felt hats were made from rabbit fur. A good book that is well worth a read is *The Rabbit King*, about the legendary

Jack McGraith and the empire he built on the humble rabbit.

HUNTING METHODS

Most of us older hunters cut our hunting teeth on the bunny. They offered great hunting and, at times, their numbers were staggering. Our methods of hunting were numerous. Whether you hunted them with the popular rimfire or took them with a shotgun after they were flushed from their squats by ever-keen dogs, the result was usually the same, a bunny in the bag.

Over time, long-range sniping with flat-shooting centrefires gained many devotees, as did taking them with a smoothbore as ferrets flushed them from their warrens. While many of us went on to hunt bigger game, very few of us turned our backs on the humble rabbit and most of us still relish an outing after them.

Like most rabbit hunters, I have my favourite methods, but they are governed by the time of year. During winter, when the numbers are low, we use ferrets to flush them from their burrows and take them with shotguns. If it is a sunny winter's day, rabbits can usually be found sitting in the burrow entrances, soaking up the sun. For these I use either my Savage .17 HMR or my Tikka .22-250 as the ranges are usually 100 metres or more.

If it is a numbers game and results are the criteria, I use my heavy-barrelled CZ .22 rimfire. Most shots are taken under some



form of light and are usually 50 metres or under, making the rimfire the cheapest and most effective choice.

But my absolute favourite method would have to be hunting rabbits over my dogs. Taking a rabbit with a smooth-handling shotgun after it has been flushed from cover by your eager dog sure takes some beating.

PLAGUE PROPORTIONS

Some years back a good friend and I had a taste of what it was like in the pre-myxomatosis days. While talking to the property owner he told us that the rabbits were the worst he had seen in years. They seemed to come in a wave virtually overnight, and the numbers had to be seen to be believed.





“

After shooting about 500 rabbits, he handed the rifle back to me, saying he needed a break.”

After shooting large numbers on a regular basis, I happened to mention to it to an old friend who was on the committee of a hunting club. He had trouble believing us, so we invited him away for a weekend. Upon arriving at the property, he was taken aback when I told him that he could do the shooting while I sat in the back of the 4x4, loading magazines for him. After shooting about 500 rabbits, he handed the rifle back to me, saying he needed a break.

During the warmer months we headed up to several properties in this area and were shooting between 500 and 1000 rabbits a night. I was using a heavy-barrelled CZ .22 rimfire firing 36-grain bullets and my mate was using his Anschutz .17 HMR. I was paying \$30 for 500 rounds and he was paying around \$250 for 500 rounds. You may find it hard to believe but my mate burnt out the barrel of his Anschutz, and it

wasn't through neglect, just an awful lot of rabbit shooting.

Unfortunately, the DPI got onto the property owners, I suspect after an article on our rabbit shooting appeared in *The Land* newspaper. We can still have a good weekend hunting on the properties, but not to the extent of before.

Fresh wild rabbit always used to appear in the windows of country butcher shops, but it is now illegal. Some time back my wife came home with the story of a woman who had paid \$28 for a cage-bred rabbit from our local butcher shop. She was genuinely taken aback when my wife told her that we had a freezer full of rabbits and we fed them to our dogs.

To some the humble rabbit is a pest, vermin, call it what you will, but to me it is a great little game animal, well worth the effort expended hunting it. 🎯



ON THIS SPREAD

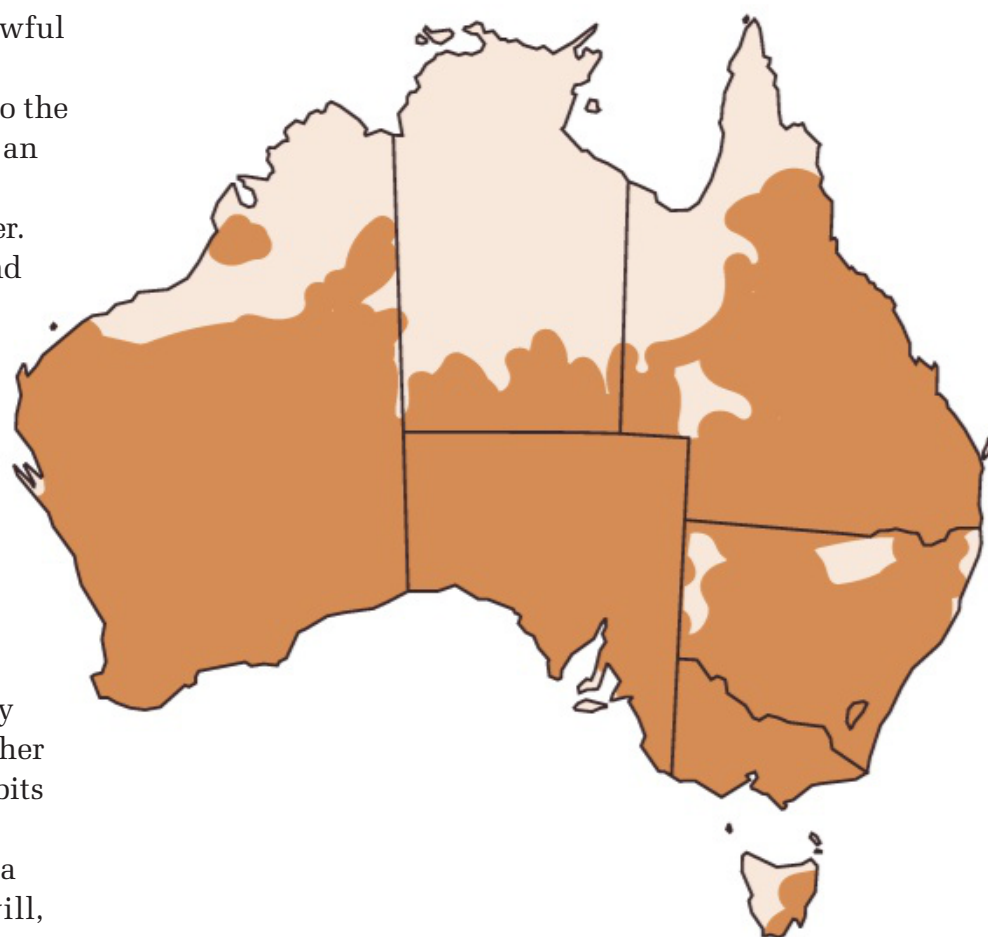
1 When rabbit numbers build up, it's not uncommon to find coloured ones.

2 The warmer months are definitely the best time to hunt rabbits. Blake retrieves a pair of rabbits that fell to a rimfire rifle.

3 A selection of firearms that Leon uses for rabbit hunting – a mixture of shotguns and rimfires.

4 Rabbits will just dig under fences, which makes retrieval difficult!

5 Off to a good start: hanging rabbits allows them to cool down quickly.





ARB interior protection

Whether you're on a job site, working on a farm or simply out hunting, ARB's premium interior covers, mats and shades will provide protection against water, mud and debris, not to mention harmful rays from the sun.

The new range includes a great looking, comfortable set of seat covers available in both neoprene and canvas. They are vehicle-specific and so fit snugly to your seats, protecting them from spills and debris. Designed to last, these covers are machine washable and UV protected.

Also available in this new range of protective gear for your 4WD are floor mats designed to catch

and hold mud and debris. They cover all areas of your footwells and even use the vehicle's retention clips where applicable. Made of a thermoplastic elastomer material, they are odourless and offer seamless edges to provide protection and grip across all high-impact, carpeted surfaces.

Last but not least, ARB offers a wide range of vehicle-specific sun shades. These don't require any suction caps or clips, and are a neat fit for the windscreen's shape.

See the range at your local ARB outlet or visit www.arb.com.au for more information.

High Caliber gun oils

High Caliber Cleaning Supplies is a family-run small business based in Victoria offering a premium range of bore and all-purpose cleaners and oils for use on firearms and tools. In addition, they offer a knife and blade oil as well as a series of brass patch holders and firearm bore cleaning guides — with more cleaning gear on the way.

It's both Australian-owned and made.

High Caliber's Premium Bore and All Purpose Cleaner is designed to clean and degrease firearms and is more than capable of removing carbon deposits plus other stubborn stains like blood and copper fouling. Supplied in a 500mL bottle, the contents are actually a concentrate and require diluting with water before use. Safe for metal, rubber and plastic, this high-power cleaner retails for under \$25 a bottle and will last a long time. In fact, I'm told you can make up to 2.5 litres of cleaner with this one 500mL bottle.

Next is the Premium Firearm and Tool Oil available in a 50mL bottle. This product uses the highest quality ingredients

including a magnetic and antistatic additive that creates a polymeric film to protect firearms and metal parts from rust, moisture and wear. HC Firearm and Tool Oil is also ideal for use on knives and other tools. A few drops are all you need as this formula goes a long way once applied and is also ideal for coating the inside of the barrel for complete protection.

High Caliber also offers a similar oil for fishing reels and a food-grade oil for knives and blades. Other products in the range include cleaning mats, ammo box cleaning kits, cleaning cloths, stickers, T-shirts and more.

To find out more visit highcaliber.com.au.



Tikka T3x Wild Boar

The Tikka T3x range of rifles is extremely popular in Australia, not to mention world-wide, and boasts a host of excellent features along with superb accuracy. Recently, Tikka released a new lightweight stalking model exclusively for Australia, the Tikka T3x Wild Boar. Designed in Australia for our environment, it has two 10-round, dual-stack magazines, a sleek profile, a fluted barrel, a fluted bolt and a 14x1 muzzle thread for accessories.

The new T3x Wild Boar comes fitted with a striking orange grip

and forend, and a black grip and forend are also included in the box for those who prefer an all-black look for the synthetic stock.

Available in .223 and .308, it also comes complete with picatinny rail for mounting scope rings and the same excellent accuracy you'd expect from the Tikka family of firearms. Keep an eye out for a full review of this firearm.

To find out more ask at your local gun shop or visit www.berettaaustralia.com.au.



Hardy Project X rifles: stock or chassis

Hardy Rifles was founded in New Zealand by Dan Hardy, an armourer and weapons engineer for the military. Leaving the army in 2007, he decided to concentrate on Hardy Rifles and today his company produces world-class rifles, suppressors and muzzle breaks. Hardy's specialities include carbon-fibre barrels and the latest in hybrid rifle technology.

The high-end Project X rifle is available in Australia, with your choice of stock or chassis. You can opt for Hardy's own carbon-fibre stock in varmint/target rifle style, or one of the three chassis: MDT's lightweight HNT26, KRG's XRAY or KRG's Whiskey-3. The range provides plenty of variations to suit different shooting applications. With so many options, you can configure your rifle to a weight of anywhere between 2.7kg and 11.3kg!

The Hardy Project X rifle is about the ultimate in precision-built, low-volume modern rifles.

To find out more about it, visit hardyprojectx.com. It is available to order through most local gun shops via distributor OSA Australia (www.osaaustralia.com.au).



GlowShot Targets

To hone your shooting skills, GlowShot produces a large range of hanging targets, gongs, flipping targets and splatter-type targets. I recently tested their splatter targets while sighting in a firearm and found they made it very easy to see exactly where I was hitting, even at 100 metres using my 7mm Remington Magnum.

Available on heavy card that can be stapled to a backing board, or self-adhesive stickers that simply stick on, these targets come in a variety of sizes. There's even a special zeroing target for thermal imaging scopes. Splatter targets are by far the best, as they feature a halo around the bullet hole in a different colour, making it



easy to see. What's more, each scoring ring shows a different colour splatter, so you'll know when you've hit the bulls eye.

GlowShot targets are available to suit any calibre of firearm in a variety of sizes, from four inches to 16", and in packs of up to 50 targets.

To find out more or for details of your nearest stockist visit www.eagleyehg.com.au.

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Do All Outdoors clay thrower and gongs



Do All Outdoors produces a huge range of target-shooting accessories designed to hone your shooting skills while also offering hours of fun in the field. Do All has targets designed for air guns, like its Air Pellet Trap; for shotgun shooting, like the Flyway 60 clay pigeon thrower; and a host of other portable target devices.

The Flyway 60 is capable of throwing clays out to 50 metres and more, with a

5-35 degree adjustable angle for different throwing planes. The kit includes a 4.5-metre pedal-release chord and a wireless remote with a claimed range of 91 metres.

Another product in the Do All target range is the Range Ready High Cal Gong that's rated for cartridges from 9mm up to .30-06. It is easy to set up and take down, so it's ideal for use at fairly close range or for testing your long-range capabilities to out yonder. As these gongs are made of hardened 3/8" powder-coated steel, you'll get an audible and visual report when the target is struck.

For more information on the full range of Do All targets and accessories, ask at your local gun shop or visit www.osaaustralia.com.au.

SportDOG SportTrainer remote trainer

Referred to as the SD-825E Remote Trainer, this unit is ideal for hunters, farmers or simply for dog owners who wish to properly train their dog that has behavioural problems. This transmitter sends a radio signal through a handheld unit to the dog's receiver collar, allowing your dog to associate this signal with a command or behaviour. The unit features seven levels of low-static stimulation and seven levels of medium-static stimulation, all set by using the dial on the top of the remote trainer.

The collar also offers a vibration-only function and tone-only function, as well as momentary and continuous stimulations. It has a 700-metre range and is expandable to up to three dogs using additional receiver collars.

The SportDOG SportTrainer will fit dogs above 5kg and runs on rechargeable lithium-ion batteries. I'm told a two-hour charge will last 50-70 hours.

The SD-825E remote trainer comes with a three-year warranty and is ideal for correcting disobedient behaviour in dogs.

For more details or to purchase online, visit www.barkcontrol.com.au or phone 1300 668 931.



Ridgeline Ascent rapid-lace boots



Ridgeline offers a selection of footwear to suit the terrain and climate you are hunting. For example, its Aoraki and Apache boots are ideal for rugged terrain and mountain hunting and are a full-grain Nubuck leather boot. The Mallee and Arapahoe feature a combination of leather and canvas nylon and are more suited to flat to hilly terrain and warmer climates. The latest offering is the new Ascent rapid-lace boot with a new feature that none of the others have.

The rapid-lace feature is the ATOP fastening system that offers quick lacing via a very fine but strong stainless-steel lace and centre dial that's quick and easy to tension or relax without them getting snagged or stuck. This system also allows the steel lace to tighten with equal tension across the foot for a more comfortable fit. The new Ascent boots are

constructed of a moulded fabric upper and ideal for flat to hilly terrain with flex in the sole, so they're ideal for long-distance walks and tramping through the bush. After a long day in the bush, if you find it hard to release the laces of your boots as I sometimes do due to caked on mud, water and dust, you'll appreciate the new ATOP rapid fastening system.

Lightweight and waterproof, these boots are very comfortable to wear. While these steel laces should last the life of the boot, they are also replaceable and available through Ridgeline. Available in sizes US 7 to 13, they retail for under \$350 and are now available through your local Ridgeline stockist.

To find out more visit www.ridgelineclothing.com.au and check out the review we ran in the last issue.

Ridgeline Yard Shirts

In addition to hunting apparel, Ridgeline offers a range of gear for everyday use including polo shirts, tops and T-shirts. One product I like is the Yard Shirt, made of 100% organic cotton that's pre-washed for shrinkage. Featuring long sleeves, a double front, button-up pockets and half button-up front, they are great for everyday use. I wear mine around the farm and find it quite comfortable to wear.

Available in Eucalypt or Beech colour, they offer a classic fit and are smart enough for casual wear as well. At the time of writing Ridgeline informed me they were about to release the Yard Shirt in Buffalo camo as well, making it ideal for warm to cool weather hunting.

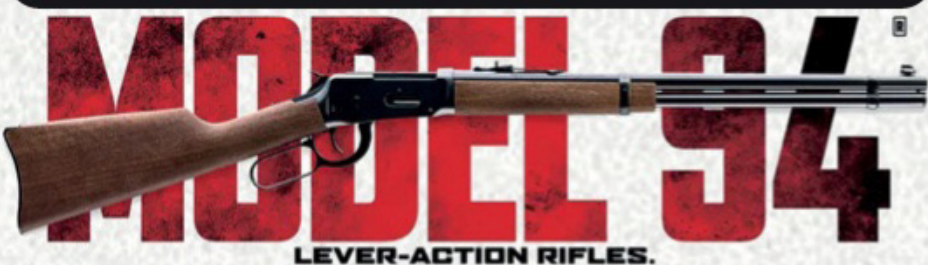
Available in sizes S to 4XL, they retail for around under \$80.

See them at your nearest Ridgeline stockist or visit www.ridgelineclothing.com.au.





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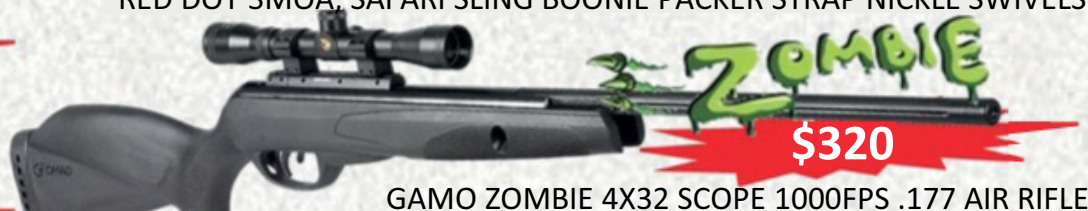


RCBS CHARGEMASTER LINK POWDER DISPENSER.....\$620
RCBS CHARGEMASTER LITE 240V.....\$595
HORNADY AUTO CHARGE POWDER DISPENSER...\$495
LYMAN GEN 6 POWDER DISPENSER.....\$570
RCBS PARTNER PRESS RELOADING KIT 2.....\$520
RCBS ROCK CHUCKER RELOADING KIT.....\$720
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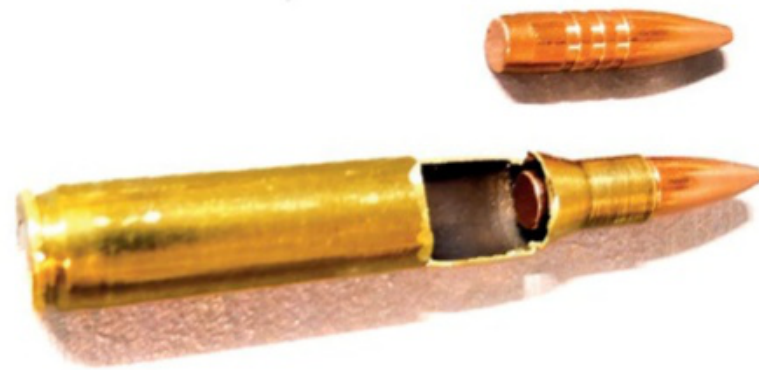
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The advantages of mono-metal bullets



Mono-metal projectile designs have become popular for all the right reasons.

EVERY so often, a new bullet comes along which offers improved performance and increased killing power. It alters normal parameters and changes the way we think about hunting projectiles. It doesn't happen too often but, when it does, it ushers in a new level of technology that can be refined and improved upon.

Conventional non-bonded swaged-lead-core bullets are typically more accurate than any bonded bullet, but bonded bullets require a softer lead core, so they don't always provide effective and consistent terminal performance at one or both ends of the velocity spectrum.

Today we have some excellent controlled-expansion designs, such as Nosler's AccuBond and Ballistic Tip, Hornady's Interbond and

Interlocks, Federal's Terminal Ascent and the Swift Scirocco and A-Frame, for example. Bullet development never stands still and improved designs keep turning up.

Today, mono-metal designs are becoming more popular for a number of very good reasons.

Barnes started the trend to all-copper projectiles more than three decades ago and for years I've been using their Triple Shock X-Bullet in my .257 Roberts for deer hunting. Long before the Triple Shock X, MRX and Tipped TSX appeared, however, I had been using the original copper X-Bullet in my .338 Winchester Magnum and enjoyed great success with it in Alaska as well as on other big game hunts.

Many shooters experienced problems with copper fouling using early Barnes bullets. This problem was solved when Barnes started cutting a series of relief grooves in the bullet's shank which virtually eliminated copper fouling and allowed greater velocities at lower pressures. The result was the Triple Shock X-Bullet, which was followed by the

MRX (Maximum Range X-Bullet) and the Tipped TSX.

The 100gn .257 Barnes Triple Shock X-Bullet was my first choice in my Ruger .257 Roberts and also in my current Kimber .25-06.

Mono-metal bullets tend to kill quicker when driven at high velocities, and meat hunters like them because they tend to ruin less venison than lead-core bullets.

Barnes all-copper bullets stretched the parameters of performance and moved technology in a new direction. Reports by hunters praising the killing effect of the Triple Shock X-Bullet influenced other bullet makers to bring out their own all-copper bullets.

Some bullet makers labelled them 'monolithic' while others used the term 'mono-metal' — the first term means "made of only one stone" and the latter "made of only one metal". Both terms, however, are used interchangeably, along with 'all-copper'. So, take your pick.

Hornady introduced the mono-metal copper-alloy GMX bullet, saying it was closer to

gilding metal, which they claimed had been proven to shoot cleaner, foul less and deliver consistent and even pressure curves. Featuring a long, sleek profile with two cannelures, and resembling the Barnes MRX, the GMX reduced overall bearing surface and friction in-bore, while achieving some of the highest ballistic coefficients from a mono-metal bullet.

The GMX has a hard Heat Shield tip that is driven into a hollow cavity in the nose of the GMX on impact to initiate expansion and form a mushroom. The tough gilding-metal material retains 95 percent or more of its original weight and expands up to 1.5 times its original diameter.

Polymer tips on bullets are popular these days, but unlike other popular trends they are as much of an asset on a mono-metal bullet as on a controlled-expansion design. A sharp leading-edge profile not only raises the ballistic coefficient for a flatter trajectory, but delivers more downrange energy. A well designed polymer tip can also help initiate expansion.

About 18 years ago, Barnes was faced with the problem that its long copper bullets prevented the addition of a polymer tip because the extra length would have made the bullet far too long. Barnes cooperated with Federal to

LEFT: The Barnes 115gn TSX not only outperforms the 120gn Core-Lokt aerodynamically but gives deeper penetration.

ABOVE: Weight-for-weight, Barnes mono-metal bullets are longer and require deeper seating. This one sits level with the base of the neck.



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Left to right: Original Barnes 139gn 7mm bullet had no cannelures, unlike the Triple Shock and Atomic 29; the E-Tip is longer and has a polymer tip.

develop a new powdered metal technology which created a tungsten-based Silvēx core for the MRX bullet. When the core was inserted into the base of a shortened Triple Shock bullet it not only boosted the weight-to-length ratio, but moved the mass of the bullet to the rear to aid penetration of the expanded bullet.

The end result was a bullet that is the same length as the Triple Shock, but heavier than an all-copper design while allowing room for a polymer tip. The MRX increased BC by 10 percent and lowered the impact velocity window for assured expansion by an average 200fps.

Penetration is exceptional with the MRX design because the four petals formed by the polymer tip (which acts as a wedge), have less surface area than a conventional lead-core bullet expanded to the same diameter. Outside of impact velocity, expanded diameter is the most important variable for determining penetration depth.

The larger a bullet mushrooms, the more resistance it encounters during penetration. Because bullets reach their terminal shape in the early stages of penetration, their expanded frontal area greatly influences penetration depth. The MRX bullet penetrates better and, in

addition, the sharp edges of the petals cut as they rotate during penetration, forming a larger wound channel.

During the process of working up a load for the Hornady 139gn GMX in my wildcat 7mm Harvey Magnum, I discovered that it was different to the Remington Core-Lokt and Speer Hot Cor bullets I'd been using. Mono-metal bullets differ more in pressure and accuracy than conventional cup-and-core bullets and give the best accuracy when seated from .030" to .090" off the leade. In this case the sweet spot proved to be .060".

This year Hornady replaced the GMX with a refined, updated copper-alloy expanding CX bullet. While it has the same basic design and terminal performance, both the material and shape have been modified and its scientifically positioned grooves are claimed to boost aerodynamic performance. To date, I've not been able to obtain any CX bullets for testing.

Nosler's mono-metal bullet is made of copper alloy and is named the Expansion Tip or E-Tip. It has a hollow tip, called an Energy Expansion Cavity, which ensures controlled expansion at a wide range of velocities and conditions, making the E-Tip an extremely versatile choice.

The E-Tip has a polymer tip combined with a boat-tail

configuration for extreme long-range performance and easier bullet seating.

There's a new boy on the block, a monolithic bullet called Atomic 29 being made by Cameron Strachan in Narracoorte, South Australia. It's available in .277, .284, .308, 8mm and .338. There's also a unique 135gn bullet for the .30-30 with a two-stage hollow point with a depth of 3-5mm.

Atomic 29 bullets are made entirely of copper, and feature a deep hollow nose to initiate expansion, but it's not skived like the Barnes X-Bullet to peel back and form four razor-sharp copper petals. No matter, on impact hydraulic pressure typically expands an Atomic 29 to double its diameter; meanwhile, the projectile retains 100 percent of its original weight.

Three grooves around the bearing surface minimise friction and pressure and reduce copper fouling. Atomic 29 projectiles are renowned for their fine accuracy. They certainly are among the toughest mono-metal bullets on the market.

Atomic 29 bullets appear to be as well-made as Barnes and other American mono-metal bullets. They've become known for the kind of dependable expansion and penetration needed for big-game hunting. Ted Mitchell has used them on everything from fallow deer to

buffalo and he swears by them.

My sample box of 135gn .284 bullets varied in weight a mere .3 of a grain and the diameter was .2850 to .2845". Length was 1.230". Exterior surfaces are smooth and polished, cannelures clean-cut and sharp. The bullet has a flat base and long, slim ogive.

But good looks alone don't win any trophies, so I loaded them into cases for my 7mm Harvey Magnum over 63gn of AR2213sc. This load drives the 140gn E-Tip out of the muzzle at 3074fps at what seems like mild pressure. Velocity with the 135gn Atomic 29 was 3115fps.

At the range, I fired five three-shot groups at 100 yards to check for accuracy and was not surprised at the evenness of the groups — .75, .80, .86, .78 and .88 for an average .762. This from a custom sporter built on a Brno VZ 24 Mauser action.

Accuracy confirmed, it only remained to check Atomic 29's performance on big game. With other makes of mono-metal projectiles I've hunted only seldom have I been able to recover a fired bullet. They all achieved complete penetration, making exit to sail off into the wide blue yonder.

The first head of game to fall to the Atomic 29 135gn HP in my 7mm was a rusa stag standing broadside at about 150 yards. As expected, the bullet went right through his chest and was not recovered.



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The exit hole was large enough to leave a copious blood trail that would have been easy to follow, had the buck not dropped on the spot.

The second animal was a large boar at close to 200 yards. He was standing at a slight angle and the bullet landed behind his shoulder and exited his far flank.

Because the specific gravity for copper, which is expressed as a ratio, not units, is 8.93 compared to 11.34 for lead, a copper bullet of a certain weight will be significantly longer than a lead-core bullet of the same weight. Seating depth has an effect upon powder space and the load, which calls for caution when working up a load.

Penetration is important to a bullet's ability to take game. If it fails to penetrate deeply enough to damage vital tissues, not much else will matter. The concept of a solid copper or monolithic bullet was to design a projectile that would deliver the terminal performance of a conventional cup-and-core bonded design while offering low controlled expansion and deeper penetration.

It was intended to hold together to smash bone, drive through heavy muscles, and cut a sizable wound channel en-route. My judgement is that a good big-game bullet shouldn't stop there! It should carry on and make exit, leaving a blood trail to follow should the need arise.

With a good many controlled-expansion bullets, depth of penetration will vary greatly. This becomes obvious when you contrast a broadside shot on a fallow deer with a rear-end raking shot that enters under the animal's tail but fails to range far enough forward to get into the lung cavity.

Three factors determine how deeply a conventional bullet will penetrate: impact velocity, bullet weight and bullet diameter. With expanding



A bullet's construction is the most important thing for its terminal performance.”

bullets these factors are truly variables because they undergo change continuously during penetration. As soon as a cup-and-core bullet impacts an animal it begins to slow down, change shape and lose weight as it passes through tissues that vary in resistance. In the case of a conventional soft-point, it may even shed the core.

A bullet's construction is the most important thing for its terminal performance. For all big-game bullets there is a minimum impact velocity; below this the bullet will expand very little or not at all. This usually happens at long distances after the bullet has slowed down. It will penetrate more deeply because expansion is minimal, its frontal diameter remains small and weight retention is high. Differences in jacket thickness and material hardness make bonded core bullets of the same calibre and weight perform very differently.

Impact velocity is a key factor in penetration and the larger a projectile's expanded diameter the more resistance it encounters during penetration. The larger the 'mushroom', the more braking

effect, so penetration suffers.

One school of thought thinks a mono-metal bullet bores a pencil hole straight through the game's chest, creating little damage before it exits, expending all of its energy in thin air just like a full metal jacket. Another school thinks that the ideal bullet expands rapidly after impact, destroys a lot of tissue and then lodges under the hide on the far side of the animal.

A third school, one I'll not argue against, is more practical. Its adherents show a preference for controlled expanding bullets like the Federal Terminal Ascent, Swift A-Frame and Nosler AccuBond. These are ruggedly constructed to take down everything from the largest sambar, moose and eland.

Recent modifications to controlled expansion bullets are largely concerned with adding polymer tips to add aerodynamic advantage by increasing their ballistic coefficients. A bullet with a higher BC will retain its velocity and energy over a longer distance. This results in a flatter-shooting bullet which will drop less at a given range

than a bullet with a lower BC.

Within normal hunting range, 300 metres or less, ballistic coefficient doesn't offer a real advantage in bullet performance. The ballistic advantages of a higher BC simply cannot be realised until the range exceeds 500 metres or more. Of all the factors that make a good hunting bullet, a high BC isn't one of them.

Sectional density (SD) is more important to hunters because it gives an indication of how well a bullet will penetrate. The higher a bullet's SD, the better its ability to overcome resistance when penetrating solid medium if velocity and construction are equal. This is part of the reason why heavier bullets are recommended for heavier game; the higher the SD the greater the penetration potential. At least, this is the long-held theory.

In actual practice the bullet's construction is the most important factor in penetration because if the bullet fails to drive deep enough to damage vital tissues, not much else will matter.

Mono-metal bullets penetrate spectacularly, deeper than any other type of hunting bullet. After boring through a lot of meat, heavy muscle and bone, they are likely to exit and leave good blood trails.

All-copper bullets are so darn good that many hunters prefer them over even the best controlled-expansion designs. They can be relied upon for angling and lengthwise shots. Don't worry if you can't source Barnes, because Atomic 29 are just as accurate and effective on big game.

Having said that, the biggest sambar stag I ever shot was on the run and dropped in his tracks. The bullet was nothing special — a Speer 160gn Hot Cor — so perhaps we should pay more attention to placing any kind of bullet where it will do the most good. 

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“

We need to aim at re-defining the status quo, focusing on influencing those around us.”

anything but uncritical and smug with their own self-importance.

We need to aim at re-defining the status quo, focusing on influencing those around us rather than enjoying the uncritical personal satisfaction of one's own social media popularity.

When sharing how we as hunters are influencers in what we do, our guest speaker was excellent. I really agree with everything he said: as hunters, we are ambassadors for our sport; it is our responsibility to assert positive influence on those who are not hunters in our everyday life.

Trust me, it's easier than you think. It takes as little effort as preparing a plate of free-range venison or other game meat that was taken humanely for the table and sharing it with someone who has never tried it before. By doing this, the conversation of letting nothing go to waste will be free flowing.

This small gesture could spark a chain reaction between your friend who tried the game-meat meal and their friends who may have no contact with the hunting lifestyle other than the lies that are spread in the media.

One of the great lessons I have learnt is that one small gesture goes a long way.

The influncial hunter

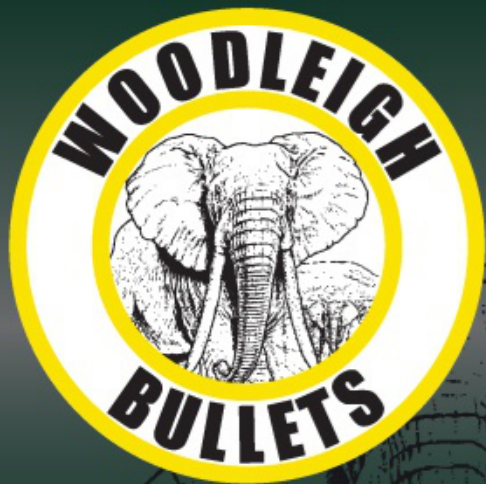
Whether you realise it or not, you're an influencer. And that's good for our sport.

INFLUENCER this, influencer that. With social media platforms controlling our everyday lives, so-called influencers are everywhere.

I have briefly touched on this topic before, but a specific comment — or rather, question — made at a recent hunting club meeting got me thinking about it again. As soon as our guest speaker mentioned the

word influencer, someone in the crowd greeted him with, “How many followers do you have?”

One of the biggest issues we face in our industry is that of apathy, complacency and ego (ACE). Another is those who are only interested in boosting their own personal agendas or micro-empires. People with the lack of interest to be

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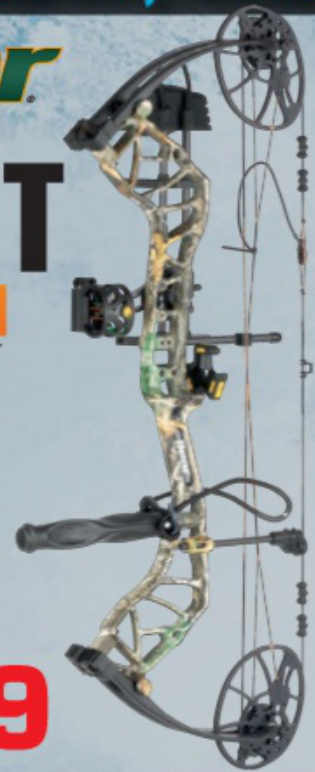


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Richard Preece took this gnarly boar on the Darling River at Wilcannia with a Rossi .30-30 lever-action using Federal Power Shok 150gn soft points.



John Elliot sent in this snap of himself with a few winter boars from Goondiwindi in Queensland. Nothing beats a quad and a lot of open ground to hunt 'em down on!

"This is my wife Fiona's first pig, spotlighted at Hughenden on a recent hunting trip," says Carl Daniel. "She took it down with one shot from her new Tikka T3x Lite in .223." That's what you call a good start to a pig-hunting career!



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"I picked this fella up last week with the .270 Weatherby Vanguard on my way to a fencing job," says **John Starr**. "He wasn't a great big fella but he was sporting some nice dental work. I'm sure things will be a bit quieter this week since I've come off second best to that bloody bug going around starting with C. And I haven't even been on a cruise ship." At least it's not swine fever, John!



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