

The highs and lows of pheasants

Malcolm Plant weighs up the options of the appropriate loads to use when you go long distance

I'm not doing any loading in the game field this season. Whether the client is 'double gunning' or I'm just 'stuffing' for a single client, in coronavirus terms I'm less than a metre away. In normal times, that closeness is what is so rewarding about loading; you get to know your Gun, you are in their bubble and, hopefully, they are in the zone performance-wise.

Wherever the client travels to shoot, the loader will usually accompany them. So over the years I have seen some lovely high pheasant estates and also a lot of good and not-so-good shooting performances.

High pheasant

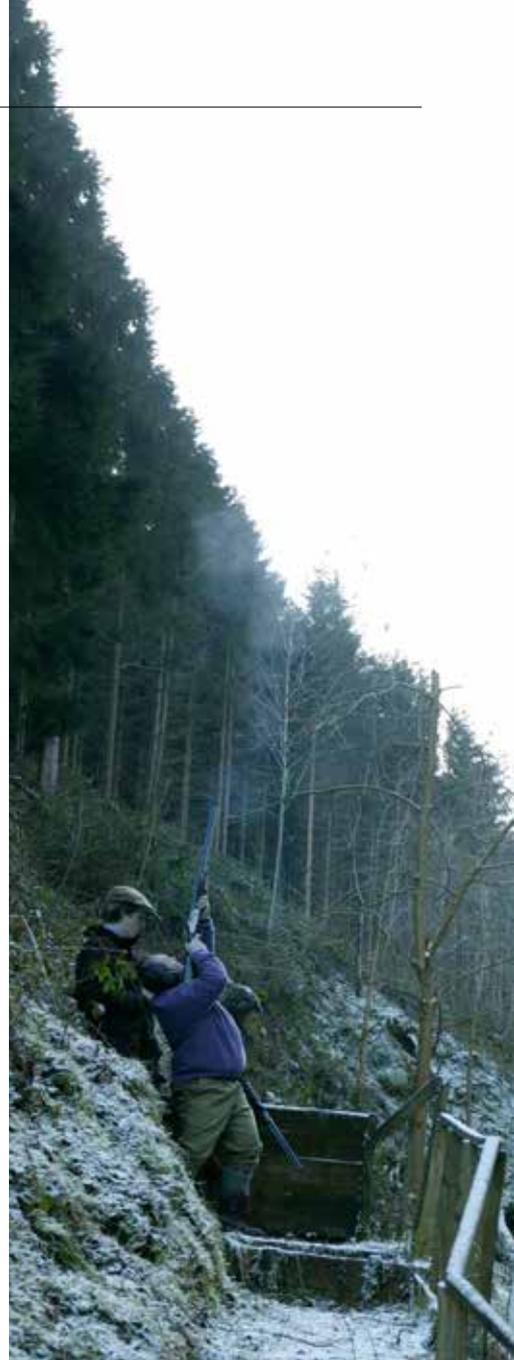
So what is a high pheasant? For normal mortals shooting cartridges with say 30gm of No 6 or 5 lead shot from their standard shotgun, a distance of 40 to 45yd is generally

considered to be a decently high pheasant.

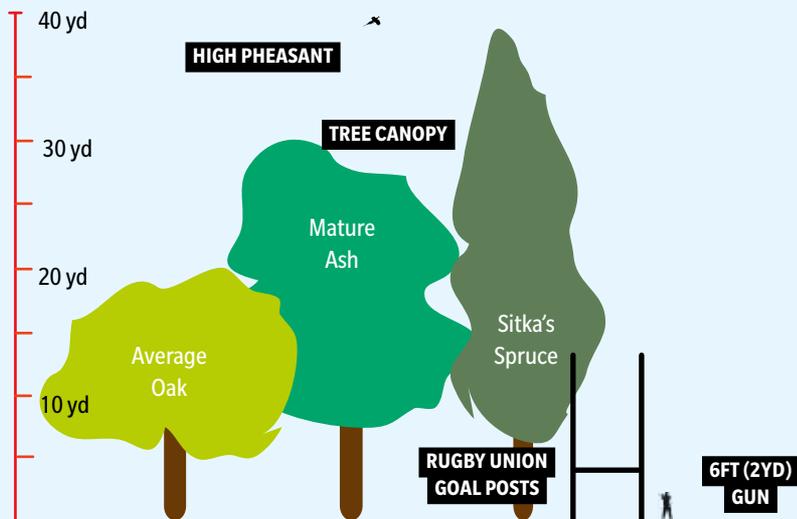
The major principles when taking on a live target are that the shooter is sufficiently competent to ensure that humane despatch is achieved and that the equipment used is capable performing the required kill.

However, on North Yorkshire and West Country high-pheasant shoots, I have seen good Guns consistently taking pheasants at 60yd with clean kills. These are well-practised, competent performers; they are definitely using the appropriate equipment.

The other side of this coin is illustrated by a situation I encountered at a well-know North Yorkshire estate a couple of years ago when loading for one of my regular Guns. A guest on the next peg of the shooting line was a reasonable shot, but it was clear that he was not reliably killing the pheasants he was hitting.



ASSESSING THE HEIGHT OF A BIRD



At the end of the drive, as the Guns wandered back towards a sausage roll or two, I asked the guest what cartridges he was using. The reply came 28gm No 6 shot. Quietly, I mentioned he was light on the ammo hitting power and, as such, was pulling birds down, but not instantly. His load would have been fine for Hampshire partridges, but it wasn't for seriously high pheasants. I reassured him the head gamekeeper always put pickers-up and dogs on the opposite hillside of the valley, as well as the usual line 100yd behind us.

"They will see the ones you hit and collect them."

Pattern and pellet energy

If you are going to tackle challenging targets, it's advisable to do some pattern plate trials with your gun and one or two



Pheasant silhouette – an adult cock pheasant silhouette at 40, 50 and 60yd

carries due to its velocity (in ft/sec) and its weight (in lb). Cartridge manufacturers and ballistic experts more often than not quote such measurements in metric units nowadays, using m/sec and kg where the range of 1.35-2.00 energy units per pellet gives a clean kill.

Reports published by BASC in the UK and CONSEP (Co-operative North American Shotgun Education Program) in the US have shown that to ensure this minimum number of pellets hits a pheasant, there needs to be at least 100 pellets in a 30in-diameter shot cloud arriving at the target.

Long-distance punching

Using the velocity information provided by cartridge manufacturers, it is possible to calculate the energy of the pellets as they fly out towards the target. For example, looking at a specialist high pheasant cartridge, 30gm of No 6 shot, which sets off at 1,450 ft/sec (or 442m/sec) has slowed to 218m/sec at 40yd; one pellet has 2.76 metric energy and four of them would kill a pheasant. At 50yd, the

pellet energy is 2.53, which is still enough, but at 60yd it is 1.68 and borderline.

With No 5 shot, the same cartridge has more leeway in terms of residual energy, with 2.45 at 60yd. But there are less pellets in the cartridge with the larger No 5 shot, so the further out we try to reach, the more diffuse our pattern becomes, and the 100 pellets in the 30in circle becomes less reliable. So the manufacturers offer a range from 30gm total shot load, all the way up to a teeth-rattling 36gm load.

Also in the family of these cartridges are the larger still No 4 shot in 32, 34 and 36gm loads. The 36gm loads, in 5 and 4 shot are made with a slightly lower muzzle velocity at 1400ft/sec (or 426m/sec), presumably to ease the recoil of this heavy load.

Pattern

All of this is compromise in the search for the successful humane despatch. The 30gm No 6 cartridge has 258 shot pellets and the 32gm has 275 pellets and the chance of a 100-pellet shot cloud will exist to quite a long way out towards a target. But the smaller shot, such as the No 6, loses its velocity, and therefore energy, more quickly with distance.

The 32gm No 5 cartridge has just 211 pellets; increasing the load to 36gm only improves the shot count to 238 pellets; and the 36gm of Number 4 shot has fewer pellets still, a total of 191. This smaller total of 191 pellets can drop quickly to less than 100 beyond 40-50yd as the shot pattern expands. That's the compromise, a reasonable retained energy in the larger shot, but a weakening pattern.

On my own pattern plate, the 191 pellets of 36gm of No 4 shot had dropped to 178 pellets in a 30in circle at 40yd, which is a good pattern retention through a $\frac{3}{4}$ choke barrel. At 60yd the pellet strike was down to 45-50 pellets, much less than the required 100 minimum, with large voids in the pattern.

Some high-pheasant experts have their own custom loads manufactured by the cartridge suppliers, with loads going up to 40gm or more. But care is needed in the selection of guns to handle such loads, and also in matching the cartridge dimensions to the gun.

Cartridge length

The lengths of cartridges are illustrated in the photograph (p48). All are 12-bore with the modern star-crimp closure to hold the shot pellets except for the small .410



cartridge brands that you may favour. There are variations between cartridges and how they perform in different guns. For high pheasants, you will need all the help from your equipment you can get. There can even be quite a variation in the patterns thrown by different cartridges from the same box from a single manufacturer's batch.

Studies over the past 20 years or so have identified that for the larger game birds, like pheasant and duck, a minimum of four lead pellets needs to hit the target to produce a humane kill. The key requirement is that up to two vital organs are struck by the pellets.

Gough Thomas, the author and shooting researcher, has suggested that each pellet needs to have energy in the region of 1.0-1.5ft/lb or more to do the job properly. This is the measure of the 'punch' or energy, calculated in imperial units that each pellet

cartridge, which has a traditional card-disc closure with a rolled case turnover. The star-crimp closure occupies about 1cm or more additional length when the cartridge is fired, whereas the rolled turnover only takes a couple of millimetres.

The length of the cartridges is always printed on the box and the cartridge to ensure the user is aware the cartridge length and gun chamber are compatible.

The length printed on the cartridge is the fired length, which must fit in the chamber length. If the fired cartridge is longer than the chamber, the constriction caused by the cartridge case will lead to excess pressure, higher recoil and possibly damage to the gun. Beware of heavy shot loads in long cartridge cases.

How to shoot them

I have mentioned before that it is difficult to shoot consistently the high, true driven

“Different cartridges from the same box can throw varied patterns”

pheasant coming straight towards you and over your head.

When you have locked onto the target and the gun is coming to your cheek, you may start to pull ahead to put on the required lead or forward allowance, and this is when things go wrong.

On lower birds that



From left to right: 50mm (2in) 48mm unfired; 2. 65mm (2½in) 55mm unfired; 3. 67mm (2.64in) 57 mm unfired, • 4. 70mm (2¾in) 58mm unfired; 5. 70mm fired cartridge; 6. 76mm (3in) 64mm unfired • 7. 76mm fired cartridge • And finally 8. 76mm (3in) custom-made, heavy-load cartridge, which has been fired through a 70mm gun chamber. Note the destroyed crimp closure and the shredded end of the remaining case. This was picked up on a high-pheasant shoot in Yorkshire.

don't need much lead, the Gun who has no master-eye difficulties can 'look' under the gun with the opposite eye to judge the target and gun orientation.

On high pheasants, you normally have plenty of time to get your feet in the right position. I recommend you watch some of the high-pheasant experts online and see how they do it.

As for cartridge load, using some of the modern high-pheasant loads, at distance I would go for the better patterns of No 5 shot. Couple this with the largest shot weight you can tolerate comfortably in terms of recoil. Unless you want to use 40gm No 4 shot to improve your pattern, in which case it is advisable to book a dental appointment before you load up.

Last but not least, I recommend you don't take on high pheasants until you are a competent shot. You will spend a lot of money, depress yourself and only wound the pheasants. ■

However, when significant lead is required, the gun's fore-end and the operator's forearm obscure the target. So now the pheasant has totally disappeared under the gun.

If you want to maintain visual contact with the target to judge flightline, drift and speed, try turning each shot into a high crosser. Do this as you set up for the shot.



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The Institute of Clay Shooting Instructors was formed in the 1980s to provide qualified coaches with opportunities for further professional development, by the provision of seminars, workshops, practical activities and educational visits. ICSI coaches can be found at www.ICSI.org.uk

