# Medication for

## Which is better for grouse - direct dosing or medicated grit? Hobson's Choice, writes *Mark Osborne*, who highlights the risks of artificial management.


Grit is essential to grouse for heather digestion.

PHOTOGRAPH: KEITH OSBORNE

Perhaps the most contentious issue, after hen harriers, currently facing grouse moor managers is whether or not to dose. Life used to be a good deal simpler before science provided an opportunity to try and supplant the oft quoted (but seldom achieved) seven-year grouse cycle. Then there was no alternative but to grin and bear the crash which almost always followed the good years. Running a grouse moor is now a very expensive operation. As a result (perhaps aided by impatience on the part of some new moor owners, and the recent phenomenon of believing that man should be able to control everything), we have been seeking ways to circumvent the 'boom and bust' cycle which has generally manifested itself on most well managed moors for much of this century. Ironically those moors which have seldom produced big numbers of grouse or are over-shot perhaps because of financial pressure, may find it easier to be more consistent producers, albeit at a low level.

Essentially a grouse's worst enemy (apart from the RSPB!) is another grouse. As grouse numbers build up so do the strongyle worm. There are exceptions, but generally strongyle worm numbers increase with the grouse. In large numbers the worms weaken the host grouse (and as a result reduce egg production and fertility) and in very large numbers kill the grouse they live within. Nature's way of curing the problem is to massively reduce grouse numbers which without the host species kills off most of the worms to enable the cycle to start again.

There are two ways of trying to medically control the strongyle worm: the first is to use medicated grit, the second to direct dose.

Medicated grit is conventional quartz grit coated with Panacur, an anthelmintic drug. Grit is ingested frequently by grouse as an aid to heather digestion and if the grouse takes in medicated grit it regularly has the benefit of small intakes of Panacur which should not only clear the worm from the bird's intestines but also reduce the egg production ability of surviving worms and inhibit the development of infective larvae.

Medicated grit has been available for many years since being developed by Strathclyde Chemicals. It is, at about five times the price of ordinary grit, expensive, and until recently few of us had any real knowledge of whether it was a worthwhile cost. The Game Conservancy began detailed trials at Holwick and Wemmergill in 1996. Results indicate that medicated grit neither increases the number of eggs produced, nor the percentage of eggs hatched by treated hens.

However, what the Game Conservancy's tests have shown is that a chick's chance of survival is significantly improved by virtue of being born to a hen ingesting medicated grit. On the study sites in 1997 an extra 1.5 chicks per hen were produced with an average increase of over 3 chicks per hen in 1998.

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Almost certainly this differential will not occur every year. When worm burdens are low there would seem to be little point in using medicated grit because the hens should, all other things being equal, be in good condition. Similarly the evidence is still not entirely conclusive and the tests are being continued reversing the study sites. For now medicated grit seems a sensible precaution for moor managers to use in certain years. The only downside being the cost unless you are fundamentally opposed to any tampering with nature, particularly when used in conjunction with our finest truly wild game bird.

The case for, or indeed against, direct dosing is not so simple. Direct dosing is the catching-up at night of grouse and then drenching them with about 2ml of an oral anthelmintic. This flushes out the strongyle worms. Whilst the principle is similar to worming sheep, the practice is very different. Catching grouse at night is time consuming, if only because to be effective a good proportion of the grouse on the moor needs to be treated. It is also highly labour intensive with teams of three being ideal and two people a minimum. It can cause stress in the birds and usually does in the keepers! At the same time, with the use of four wheel drive off-road vehicles at night, it can be dangerous.

There have undoubtedly been several success stories proving that direct dosing can work. Equally there are examples where results have been disappointing.

There are several theories as to why the results are so good on some moors and yet so poor on others. Perhaps the most persuasive is to look at the moors themselves. Moors differ as to elevation, aspect, vegetation cover, depth of peat and rainfall. Generally harder (moors with less peat depth), drier moors seem to be able to carry more grouse for longer periods before the build up of the strongyle worm leads to a crash. Very often these moors are flatter (such as in Durham) enabling better access for guns resulting in more flexibility when driving the grouse which in

# an ill future

**High quality keeper can improve gro numbers without recou to direct dosing medicated g**

PHOTOGRAPH: DAVID MASON

**Medicated grit helps fend off strongyle worm but perhaps moor owners should simply learn to live with cyclical declines.**

of the surplus grouse can be culled. This will help to reduce the host numbers thereby reducing the worm build up.

Ironically it is also the harder, flatter moors which are far easier to direct dose. It is much safer and easier to drive at night on such moors than on ones with deep corries or acres upon acres of broken hags. That some moors, which at first sight appear unsuitable, still direct dose is a tribute to the keeper's perseverance.

Is it all necessary? The simple answer has to be no. In the heyday of grouse production in the 1930s, no dosing was undertaken nor medicated grit used.

Some of the bags then were literally huge. At Broomhead, a moor of 3,800 acres, there have been 11 separate days when over 1,000 brace were shot. It seems likely that the Rimington Wilson family's attention to detail which resulted in almost perfect moor management conditions, allowed unbelievable stocks of grouse to be carried. It is interesting to note that in order to achieve a 66% success rate in dosing and assuming there was a pair of grouse to every 2.5 acres, over 2,000 grouse would need to be caught and dosed on Broomhead Moor. Not being a flat hard moor, the man-hours involved would be considerable.

This is to my mind the major weakness in the case for direct dosing. Yes, it undoubtedly does work on some moors and provides more shooting as a result. However, it is not a short cut to more regular or more plentiful grouse production. If no extra labour is employed to enable the keepering staff to go out dosing night after night (assuming weather conditions permit), then almost certainly some of the basic tenets of good moor management will be denied. There are only 24 hours in the day (and night), and a really effective moorland keeper already works very long hours. To put an additional burden on him is not only unfair but also unrealistic.

I think that this season will make it even harder to make a realistic judgement as to whether dosing works. Some of the high elevation western moors which lie wet and have had reasonable numbers of grouse in recent years are quietly confident of, if not a good yea not a disastrous one either. This despite not dosing ar there having been a high worm burden last season. Similarly I know of moors in West Yorkshire which ar on drier, harder ground with a modest grouse stock which despite having dosed seem to have fared badly This was before the wet weekend at the end of May which caused a reduction in brood size.

At present there really does seem little rhyme or reason as to why dosing works and why it doesn't. Tw factors are clear; it is not a substitute for high standard of keepering, and it is possible to produce good numbers of grouse reasonably regularly without dosin Despite the evidence which points to it working well on some moors, the proscription is not universal.

Most moor owners and managers will have to continue to live with the good, bad and indifferent years. Just maybe that is how it should be and to try and engineer the alternative by medication is to reduce our finest game bird to yet another artificially managed commodity. ❍

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