EXPERTS VIEW

Better Returns Programme

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Use of AI in the suckler herd

Artifical insemination (AI) is an infrequently used management tool in the suckler herd and yet is one which can confer significant advantages over or alongside running bulls and managing reproduction using natural service.

Bulls are large and potentially dangerous animals which are expensive to buy and keep. New bulls present a biosecurity risk to the herd, genetics are fixed and illness or injury can result in disastrous herd performance.

Using AI allows access to superior genetics at a fraction of the cost involved in buying a bull and without the ongoing cost of maintaining the animal. The danger that can be associated with working with mature bulls is avoided. The biosecurity risk of introducing new bulls into the herd is avoided. There is no risk of the bull injuring himself or becoming sick and semen quality is assured. There is also the option of using EBV data to select specific bulls to be used on specific cows or heifers depending on requirement; easy calving bulls might be the priority for use on heifers whilst different bulls might be chosen to sire calves destined for fattening and those destined to be herd replacements.

The use of AI in the suckler herd does, however, present logistical difficulties. An ability to identify and then handle 'bulling' cows is necessary to allow serving to be carried out at the optimum time and with a minimum of stress. Although there is no way of avoiding handling the cows if the use of AI is to be successful, there are options whereby hormone treatments can be used to ensure the cows are in oestrus at a predictable time at which they can then be served, minimising the need for oestrus detection. This is called oestrus synchronisation and fixed time AI and it can be used to not only ensure large numbers of cows are served with carefully selected bulls at a predictable time, but also to induce oestrus in cows and heifers which may not be cycling normally and to tighten the calving pattern.

Oestrus synchronisation programmes generally rely on the manipulation of the cow's natural cycle by using prostaglandin to induce luteolysis or on the induction of oestrus by providing and then removing exogenous progesterone. In the former, two doses of prostaglandin are usually given eleven days apart with AI being carried out shortly after the second dose. In the latter, a progesterone releasing device is inserted in the vagina for between eight and twelve days with AI being carried out shortly after the device is removed. In both programmes additional treatments can be added, depending on the animals involved, to refine the programme and the exact timing of the treatments and AI will depend on the specifics of the programme so should be discussed with your vet.

It must be appreciated that conception rates following oestrus synchronisation and fixed time AI can be highly variable, although between 50 and 60% would usually be expected. Success can be maximised by ensuring the cows being synchronised are in the correct body condition ('fit not fat'), on a rising plane of nutrition, that they are handled in a calm, sensitive manner, that their health status is known and appropriately managed (any necessary vaccinations, in particular, should be given in advance of synchronisation and service) and that the synchronisation programme should be adhered to as closely as possible.

For those cows that do conceive to fixed time AI following either observed oestrus or synchronisation the advantage will be in the improved genetic characteristics of the offspring which will be delivered at a predictable and desirable time. For those that do not conceive repeat synchronisation might be an option but often these animals are then run with a sweeper bull.