

Knowing the numbers – knowledge is power

Teagasc Equine Specialist **Wendy Conlon** urges sport horse breeders to get to grips with their costs of production

HOW many of you, as breeders, take the time to record or calculate expenditures on an enterprise basis, never mind on an individual mare/foal/three-year-old basis? When asked to identify average costs representative even just of production of the foal, it actually isn't so easy.

Costs of production are highly variable between enterprises, animals, breeding seasons and breeding methods used. Variant stud fees; the need to acquire professional assistance in sales preparation or not; perhaps even land, building or machinery rental fees or loans on same may impact some enterprises and not others.

Mare depreciation, registration fees, sale entry fees, commission and veterinary costs are also widely variable. Whether natural covering, artificial insemination (and choice of semen – fresh, chilled or frozen); or embryo transfer is used, or one of the newer suite of technologies such as intracytoplasmic sperm injection (ICSI), ovum pick-up (OPU), or freezing of embryos, can have significant bearing on the variations in costs. On an enterprise basis, other costs such as running cost of vehicles; equipment; repairs and infrastructure investment; phone, heat, electricity and potentially even wages may need to be considered.

Knowledge is power

The saying 'ignorance is bliss' originating in Thomas Gray's poem 'Ode on a Distant Prospect of Eton College' (1742) comes to

mind. 'Where ignorance is bliss, 'tis folly to be wise'. Face it, you were better off not knowing that, weren't you? But, generally speaking 'ignorance' is a not a good state of mind and 'Knowledge is Power'.

Knowledge is provided by information; information leads to education, education breeds wisdom, and wisdom is liberation.

If we apply this to the topic of what are the costs (and returns or otherwise) of breeding horses, even though there might be initial pain in the knowledge for many, knowledge can offer the education and wisdom to perhaps alter decision-making.

The result may be to amend the breeding goal and change approach in terms of method of breeding/choice of stallion for an individual mare, or as may be warranted the option to cull/replace a mare in the enterprise.

If you don't know your costs to begin with you are operating in an abyss, though at some level of consciousness there is likely to be an acknowledgement that profit is not being realised. In the words of Albert Einstein, 'insanity is doing the same thing over and over and expecting different results' and 'the measure of intelligence is the ability to change'.

Keep account

I encourage breeders to keep account of individual costs of production with a view to reviewing profitability at time of sale and potentially influencing decision-making regarding individual mares.

The majority of breeders are in the business of selling either foals or three-year-olds. This article focuses on the foal. Based on



The majority of Irish sport horse breeders are in the business of selling either foals or three-year-olds. (Pictured is an Elvis Ter Putte colt bred by Brendan McArdle and Sarah Crosbie)

Table 1: Husbandry of the Mare (Sport Horse)

Item of Expenditure	Cost (rounded)	Explanatory note
Forage - Hay	€50	2 round bales of hay @ €25 /bale (Haylage may be €30 /bale)
(Will vary depending on bought in / home grown; forage quality; availability of grazing, body condition, mature body weight)		
Bedding - Straw	€90	6 round bales @ €15/ bale
Assuming wintered in for 5 months with daily turnout.		
Concentrate Feed – balancer / balancer and oats/ stud cube	€105 (oats & oat balancer) - €140 (stud cube)	Average 500-600kg mare; Due May (good doers)
Assumptions made using mainstream brand of feed, in consultation with nutritionist on minimum feeding values; and accounting for creep feeding of foal.		
Parasite Control	€55	Faecal Egg Count test x 2 @ €15 each
Tapeworm & Encysted Redworm (€25 - different options to achieve this)		
Additional dosing dependant on F.E.C. result and/or stocking rate / management system		
Always ensure product licensed for use in pregnant/lactating mares		
Dentist	€55	Annual Standard Check Up
Farrier (trimming)	€125	Five trims @ €25/trim
Vaccination	€35	Flu and Tetanus
TOTAL	€515 - €550	

minimal recommended husbandry interventions (feed, bedding, veterinary etc) and assuming reasonable mare fertility, Teagasc estimates the average basal cost of producing a foal for auction to be in the region of €1,500 to €2,250. But, there are many variables and the end cost can be considerably higher.

The estimate encompasses the basic costs associated with managing the mare during her pregnancy and managing the foal but does not take into account the items mentioned above such as stallion stud fees, mare depreciation, and barren years. There will be variations within enterprises in the suggested costs below.

Non-reproductive clinical issues can also arise with either or both mare and foal.

Mares are individuals. The mare with optimal fertility will cost considerably less to breed than the mare with sub-optimal fertility requiring additional supportive treatment and potentially bred over multiple cycles. With frozen semen, the requirement to inseminate within six hours of ovulation increases the requirement for scanning pre-insemination and with the added complexity of variances in semen quality or compatibility with individual mares, and the much lower pregnancy rate, the costs tend to not remain at the lower end of the pa-

rameters possible. Only the very best genetic merit mares with optimum fertility (younger mares ideally) should be considered for frozen semen breeding to warrant the expenditures involved.

Stud fees

Stud fees are another highly variable input cost. Prices range from as little as €200 to as much as €3,000 with many sitting in the range €500 - €1,500. Terms and conditions of semen purchased are very important to consider. Buying semen per dose is high risk. The preference is to purchase pregnancy deals permitting unlimited attempts for one named mare in one breeding season.



Left: Costs of production of quality foals, like this Kannan colt pictured above, bred by Kilmashogue Stud, varies greatly between enterprises, animals, breeding seasons and methods used

Right: Richard Sheane (Cooley Farm), Teagasc Equine Specialist Wendy Conlon, Kate Rocher Smith (Dassett Eventing) and Marcus Swail (Equivent Ireland) at the Teagasc National Equine Conference in Limerick last year
PJ Corbett



Table 2: Reproduction of the Mare (Sport Horse)

Item of Expenditure	Cost (rounded)	Explanatory note
Basic Repro Veterinary Fees	€100 - €700	Expected pregnancy rates after first natural cover are 80% costing approximately €100 in veterinary fees; expected pregnancy rates with chilled semen are 65% costing a minimum of approximately €200 in veterinary fees; and with frozen semen are 40% costing approximately €700 in veterinary fees to establish a pregnancy (€350 per cycle). €36 x 2 scans
Pregnancy scanning	€72	
Total Repro Costs (basic)	€172 - €772	
Repro Interventions individually priced (approximate) (Including 13.5% Vat) rounded figures		
Scan Ovaries	€28	Not all of these costs will be undertaken with each mare; and for some individual mares certain costs will be undertaken multiple times during the breeding season
Scan Pregnancy	€36	
Prostaglandin	€8	
Flush Uterus	€23	
Uterine Treatment	€27	
Oxytocin	€7	
Semen Insemination – frozen & chilled semen	€34	
Visit Fee	€57	

Table 3: Foal To Weaning (6 months of age)

Item of Expenditure	Cost	Explanatory note
Feed	-----	Costed with the mare
Parasite Control	€14	2 doses (partial tube) @ €7 per dose
Always ensure product licensed for use in foals		
Foal Blood Type, Marking and Micro-chip	€68	(including 13.5% VAT)
Foal Registration	€30 - €117 Using figure of €70	(including 23% VAT) Considerably variant fees. Some Examples: Leisure Horse Ireland: Non Pedigree Passport €30; Pedigree Identification Passport €55 HSI Member Registration before Oct 31st €62; after Oct 31st €80; HSI Non Member Registration before Oct 21st €80; after Oct 31st €117; CPBS Member Registration including Hoof Wall Separation Disease test €75; CPBS Non Member Registration not including HWS test €65
Farrier	€60	3 trims @ €20/ trim (some farriers may charge less or nothing additional for a foal if only a quick rub is involved).
Sale Entry Fee	€50-€200	Regular versus Select Sale
Vaccination	€35	Flu and Tetanus from six months (could be before or after sale depending on d.o.b.)
Total Foal to Weaning	€297 - €447	

Table 4: Combined Costs of Mare and Foal

Combined Costs of Mare and Foal	
Cost of mare husbandry	€515 to €550 (variance on feed input)
Cost of mare reproduction (Basic Costs)	€172 – €772 (variance fresh / frozen semen) Chilled in between. Fertility dependant.
Cost of foal husbandry to six months	€297 - €447 (Mid figure used for registration; variance on sale entry fees)
Miscellaneous Mare and Foal (tack, grazing, transport, livery, social media advertising, other)	€500 (conservative figure; will vary; transport can have a significant input)
Estimated cost of production foal	€1,484 - €2,269*

*As already emphasised stud fees are not included in the above figures.

With the growing use of A.I., mares are tending to be managed at home or at a veterinary practice, in many cases without incurring livery charges. However the cost of livery is another possible addition for some which can vary from as little as €6 per day to €15 a day, variant between maiden/barren mares and those with foals at foot. In some cases, mares are being shipped abroad to be bred, though these will tend to be the ones that warrant that investment on genetic merit.

Additional to the cost of semen will be semen shipping costs and health papers. Regarding frozen semen, some farms will charge a fee to hire and return the shipping container while others require the customer to provide the container and pay a fee for liquid nitrogen, or purchase a non-returnable container with liquid nitrogen.

Embryo transfer

Embryo transfer veterinary costs for a pregnancy are estimated at €1,400 for a flush, transfer and pregnancy. However, there are additional costs of husbandry and synchronisation of recipient mares (multiple mares required) so the base cost of €1,400 is only the starting point. Synchronisation may cost as much as €200.

The embryo transfer recovery rate may be 100% for pregnant mares at seven-eight days, however pregnancy rates at this stage is dependant on semen choice – natural cover (80% recovery); chilled semen (65%), frozen (40%). Flushing a mare that is not pregnant does not yield an embryo but will still cost €300 per cycle.

Often the mares that are chosen for embryo transfer tend to be already with more than the desired number of years on the clock from a reproductive soundness/fertility perspective which challenges the control of costs.

In some cases, breeders are paying a rental fee for recipient mares which may include the preparation of the recipient, follicle controls, embryo transfer, follow-up care, pregnancy scan-

ning and husbandry up to 60 days gestation.

In other cases, the fee covers up to 28-day heartbeat scan. In some instances there is a deposit fee built in to the cost which is returned when the mare comes home after foaling. Whether the hire cost is dependant on pregnancy or not is another variable in the packages offered. A rough guide to the cost of recipient hire is €2,500.

While there is increasing compliance with registration rules, a growing number of animals are being registered with non-pedigree identity documents only, for the purpose of complying with the law.

However, these identity documents do not require DNA verification and should these animals subsequently breed, their progeny in turn may not be eligible for studbook passports.

While ID documents are sufficient to meet the legal requirements, once an animal is registered with unrecorded pedigree its value is diminished. Information is also lost to the studbook for subsequent generations bred from these animals as the links cannot be maintained with DNA verification of each generation.

Conclusion

Costs of production are exceptionally variable both between enterprises, and individual mares. If you aren't recording costs, you can't be accurate in speculating on profitability at the time of sale. Without clear accounting decision making is not grounded in fact. It is critical the individual mare warrants the expenditures generated, particularly when engaging with more complex repro techniques. There continue to be mares bred using frozen semen which would be better served using fresh/chilled semen and also perhaps adapting the breeding goal. A more commercial approach to decision making is prudent. Basic husbandry inputs should, under no circumstances, be curtailed to accommodate other expenditures.