A breeding goal should focus on quality over quantity using only proven talented mares and stallions with good genetics for soundness, temperament and performance traits so the resulting foals meet an industry demand. Wiebe-Yde states that their breeding goal is to “breed international level show jumpers having each generation genetically stronger than the previous. Our objective is to breed horses with balance, scope, excellent movement and a good temperament.”

The more challenging the set of breeding goals, the more genetic improvement one can achieve. Like many top breeders, VDL is really selective about its mare lines and prioritise those horses that have either been successful in the sport themselves or have a closely related individual performing well at an international level. “All horses are selected based on pedigree and natural ability. The dam line is very important. Not every horse will make it to the top of the sport but there is still a lucrative market for sound, balanced, good-looking rideable horses at 1.20m to 1.50m level. Most of our mares have never competed in the sport and go directly into our breeding program,” says Wiebe-Yde.

Table 1 illustrates the percentage influence of individuals in a pedigree, by generation position. Breeders should note that previous generations can still have a major effect on the next generation (Colt/Filly). Therefore, the importance of having mares and stallions in multiple generations with the genetics to compete at the top level is what VDL strives to achieve in order to produce international performers.

Selecting stallions
In September, the team at VDL assess all two-year-old stallions’ loose jumping as the KWPN studbook stallion selections start in December. “Loose jumping to select young horses, works very well as you can identify future potential immediately. If you don’t see it from the beginning you’ll never get it,” remarks Wiebe-Yde. When assessing young horses, the VDL team have strict criteria. “First you need to look at the overall model. Key characteristics are balance, scope, temperament and a good canter.” Conformation is also very important when the VDL team are assessing stallions. “Conformation is associated with health. Weak or crooked legs are a sign that the horse is not going to stay healthy, particularly when such horses begin hard work. Any stallion who doesn’t meet the required standard is gelded and sent to pasture until they are three or four years old. It is paramount to the stud that stallions are successful in the sport. Sporting success is not only of commercial importance but also important for breeders to sell their progeny,” says Wiebe-Yde.

In September, as stallions are assessed, X-rays are taken of all stallions to evaluate potential abnormalities including Osteochondrosis (OCD). While OCD is strongly influenced by environmental factors (e.g. management and nutrition) a large part (i.e. 25%) of the trait is heritable. This means, through selective breeding, the incidence of this trait can be greatly reduced. The KWPN Studbook publishes an OCD index which measures the heritability of OCD. The index expresses a stallion’s tendency to pass on OCD to his progeny. The KWPN Studbook X-rays a random sample of a stallion’s progeny at 9-18 months to indicate genetic transmission of OCD. The genetic progress of OCD in the population is continuously updated through X-raying young progeny. The KWPN Studbook normally refuses to licence stallions with a severe OC-remarks; however, in some cases where the stallion demonstrates exceptional talent, they can be approved. Having this information available to breeders is highly valuable.

Breeders have the option to then stay clear of stallions that have a high tendency to pass on OCD to their progeny which can result in an immense loss in value of the animal. Horses can have the best genetics for athletic ability, but if they are not sound and therefore unable to compete in competition, this is counterproductive.

Selecting a suitable stallion for your mare/mares
Wiebe-Yde says: “Breeders should avoid any emotional attachment to their mares and be very selective of them. They should be realistic when constructing individual breeding goals.” Breeders are often counselled by the stud for advice on breeding programs. “Breeders should focus on pedigree, performance, type, conformation, temperament, blood, rideability and assess the stallion’s progeny,” says Wiebe-Yde.

“When asked about using young sires, Wiebe-Yde says: “We use a lot of young stallions and these stallions should, in theory, be genetically better but may not always be the case.” Nonetheless, he says, “it is essential for the advancement of breeding to get young stallions breeding. If breeders don’t use young stallions, then by the time we know they were really good genetically it can be too late as they are already dead or sold.”

Advice to breeders
- “My advice is to define your breeding goal. Buy the very best mare you can afford. It could take you 50 years to go from a bad mare to good mare. You must start with a good foundation; buy a good mare from a breeding line you know produces good horses. Most of the top hoses come from a strong performance line,” he adds.

When assessing mares and formulating desired breeding goal, breeders should ask themselves the following:
- Has the mare a performance record and to what level?
- Is the dam line capable of producing the type of horse outlined in your breeding goal?
- Has the dam line produced a horse at that level before?
- How closely related is the mare to that performance line?
- How many of the mare’s siblings have already competed at the level your goal is aimed for?

These are fundamental questions breeders need to consider if an individual mare is not producing the desired breeding goal. Stack the odds in your favour as much as possible. “Some people say the small breeder has no chance. I think they have a very good chance to become successful breeders if they have a good plan and approach breeding using the correct formula,” says Wiebe-Yde.

The Sport Horse Industry in The Netherlands is thriving at the moment. In 2019, the KWPN studbook was ranked #1 in the world for producing show jumpers. To improve this ranking, a more scientific approach towards breeding must be adopted. Significant genetic advances can be achieved in the coming years in Ireland if the correct approach is implemented. It is now more important than ever to critically access your breeding strategies.

Dr Alan Hurley: Equine specialist, Teagasc Rural Economy Development Programme