## The Making of a Champion: Breeding Horses for the Sire Stakes

Behind every successful harness racing horse sits a strong driver. But sitting off-track behind that driver, (or walking or pacing) is a strong breeder.

Breeders are the backbone – and the croup and the crest – of the industry. The countless hours they invest match-making, breeding, and raising animals really starts to work its magic when the horse debuts in the state's sire stakes, the on-ramp race circuit of future champions.



Photo by Cara Dolan of Michael Graffam at Norton Farm

This year, 150 two- and three-year-olds are registered with the Maine Sire Stakes program, and 75 yearlings have been nominated for the 2020 season. As of early-August, barely half-way through the season, sire stakes horse earnings have exceeded half a million dollars. All-in-all, breeding and raising sire stakes horses is a \$3.8 million business in Maine.

Maine's Sire Stakes program was formed in 1972 and is one of nine programs in the U.S. The goal of the nearly 50-year-old program is "to encourage the breeding and raising of Maine horses to preserve agriculture in the Pine Tree State." It represents \$1.8 million in annual investments statewide when you tally up breeding stock, equipment, buildings, and other industry necessities.

Every horse competing in Maine's Sire Stakes program was sired by a registered stallion that remained in Maine during the entire breeding season. Foals of registered Maine stallions become eligible to participate in the Sire Stakes program provided; 1) they have been named and registered through the US Trotting Association, 2) they were nominated in Maine as yearlings, 3) continuation fees were paid when they were two and three-year olds, and 4) sustaining fees were paid in any year that they race.



Photo by Cara Dolan of Michael Graffam at Norton Farm

One of the 18 potential sires listed in the 2019 Maine Sire Stakes' stallion directory is Boy Band, sire to the famed Obigado, who resides at 3 Crow Farm in Gorham. Three Crow Farm owner and breeder Mike Andrew says it "was no accident" that the Boy Band – Malimony breeding resulted in a horse of Obigado's caliber, even though took a few tries. A lot of research and effort went into the mix.



Photo by Cara Dolan of horses at Norton Farm

Andrew admits that even with exhaustive research, it's impossible to replicate breeding outcomes. Breeding champions is still a game of probabilities. "I don't have any Maine breds that I think are going to achieve what Obigado's achieved, because that's just extraordinary, to make over a million dollars and be horse of the year," he said. <sup>1</sup>

In fact, across the U.S., about 8,000 standardbred foals are born every year. <sup>2</sup> But fewer than 50% of foals will make it to a two-year-old sire stakes series and only two out of 10 will become top performing horses.<sup>3</sup>

Ultimately, what makes the numbers more favorable and what happens on the race track starts very early on at the farm, when the breeder sits in front of the computer and painstakingly researches potential sire and dam combinations. Breeding is both a science and an art. Perfecting the recipe for a champion trotter or pacer involves not only research, but experience, instinct, and a bit of luck.

At Norton Farm in Falmouth, owner/breeder Michael Graffam has been breeding horses since he was 13, when he started working with his grandfather on the horse farm. Graffam, who is now in his 50s, begins the breeding process by studying pedigrees back five generations before choosing a breeding pair.

"We look closely at the production of the horses – success of their horses on the track – and do as much research as



Photo by Cara Dolan of sign at Norton Farm

<sup>&</sup>lt;sup>1</sup> "Breeding Basics: Selecting a Stallion," Harness Racing Newsroom, USTA, 2018.

<sup>&</sup>lt;sup>2</sup> Zoccali, D. "The Standardbred Horse Shortage is a Reality," Daily Racing Form, April 11, 2016.

<sup>&</sup>lt;sup>3</sup> Graffam, interview, August 2019.

we can," said Graffam. "We also avoid any close breeding, so we look back several generations to be sure the match is a good one." He notes that many breeders nowadays use the USTA's online Pathways services, including the "Crosses of Gold" program, to research horse lines.

"We just punch in a horse's name and right then and there we have all their history," he said. "When my grandfather used to set up breeding, he used what we called the black book. He'd get that out and go over it to figure out which horses to breed together."

When selecting a breeding pair, Graffam and daughter Bethany, who helps with the breeding program, look at physical characteristics, especially size. All other factors being equal, they try to mate small mares or stallions with larger mates. However, they are quick to point out that size is not necessarily the critical factor when it comes to future racing success. Bethany adds that they also try to include a cross three lines back to provide what some horsemen call "hybrid vigor" in their horses.



Photo by Cara Dolan of Michael Graffam at Norton Farm

Maine breeder Mike Andrew said his first priority is to find the best mares he can afford or raise them himself. "I particularly like to concentrate the genes of great mares," he said, adding that he chooses a stallion whose conformation and temperament complement the mare. Good confirmation, including breeding complementary physical characteristics, pedigree, and marketability are all key when it comes to picking out which horses to match up.<sup>4</sup>

Thanks to careful selection and advances in breeding techniques over the last several decades, the average Standardbred is a better athlete today than it was 15 years ago, and horses continue to outpace and out-trot their predecessors year after year. Improved genetics have made the Standardbred more naturally gaited, faster, smarter, and easier to break and to train.

The champion stallion Meadow Skipper is a good example of genetic evolution in action. He sired more than 1,700 horses and had substantial impact on the breed's conformation over the last 50 years. Meadow Skipper's progeny, and those of his championship peers, are more streamlined and taller, and have higher withers, finer bones, and longer legs. Harnessed together, these traits pack more speed into each horse.<sup>5</sup>

But just like in almost every other area of our lives, technology continues to advance the horse breeding process. Stefan Balazsi of Order by Stable, who was the U.S. Harness Writer's Association 2018 Breeder

<sup>&</sup>lt;sup>4</sup> "Breeding Basics: Selecting a Stallion," Harness Racing Newsroom, USTA, 2018.

<sup>&</sup>lt;sup>5</sup> Malinowski, K. and Avenatti, R., "Training Standardbred Trotters and Pacers," The Athletic Horse (Second Edition), 2014.

of the Year, and other top U.S. breeders are increasingly relying on sophisticated programs to fine-tune the breeding research process. Balazsi used advanced pedigree matching software and statistical analysis from a Canadian-based pedigree matching program to help him produce the 2018 Hambletonian winner Atlanta and the New York Sire Stakes and Breeder's Crown winner Gimpanzee. <sup>6</sup>



Photo by Cara Dolan of horses at Norton Farm

Once a breeding pair is selected, the next step at Norton Farm is to have the veterinarian ultrasound the mare to determine when she is ready. Graffam says using technology to pinpoint the time during the mare's 21-day cycle when an egg is ready for fertilization is one of the biggest changes he's experienced when it comes to breeding. It saves time, money, and missed opportunities.

"We learn a lot through the ultrasound," he said. "Now we can see exactly when the mare is ready and can usually do just one breeding. Before ultrasound, we used other ways and bred every day."

Once bred, the horse's gestation period is 11 months, and the mare typically foals out between January and April. At the Graffam farm, the foal will stay with its mother and other foals for the first six months with minimal human handling. Bethany talks fondly of how they don't handle new-born foals.

"We hardly touch them at all," she enthuses. "We don't make a big deal out of touching and handling them every day. We just let them be horses, with other foals and with their moms."

According to Bethany, it's important for the foals to be raised with other foals. Raising them in isolation can be the worst thing for them. "They need to be with other horses so they can learn about feeding, who gets fed first, and, later, how to play together," she said.

When they become yearlings, they come into the training barn and the Graffams begin the work of preparing them for the two-year-old sire stakes season. Graffam, his son Nick, and daughter Bethany are all involved in breaking and training the youngsters.

Beginning in November, seven months before their inaugural race season, the young horses become acclimated to the tack they will wear on the track, including lines and attachments for jog carts. It can be a long process from the time a horse enters the training barn until it is ready to pull a driver in a sulky or race bike. Graffam likes to accomplish as much as possible during Maine's short seasons, noting that Maine-bred horses tend to start a few weeks behind their Southern-bred and trained peers.

<sup>&</sup>lt;sup>6</sup> Keith, M. "Hall's Pedigree Matching Service Balazsi's Secret Weapon," Harness Racing Update, February 25, 2019.



This year, Norton Farm has six broodmares in foal and ten yearlings. They average seven broodmares in foal each year. Like most breeders, the Graffams own some of their own stakes-eligible horses and train and stable horses for other owners.

When asked if he can predict the future success of a young horse, Graffam notes that it's never a clear call. Even veteran trainers have difficulty spotting a future champion until training them down as yearlings. At that point, the beginning of training, the horse is about one and a half years old.

To nurture a racing mentality, trainers like Graffam often play a game called "leap-from" with the young horses. As the name implies, they rotate the order of the horses over and over during sessions, from first to last. Over time, the horses grow their competitive spirit and their desire to attain and maintain a lead.

"Some horses are just naturals," says Graffam, "You can tell they want to be a race horse. They don't have a bad attitude. They love to pass other horses."

One of Graffam's greatest joys is when the team realizes they have a special horse on their hands. "It's fun when we know a horse looks like, oh, you know, this guy is going to be alright!" he said.



Photo by Cara Dolan of horse at Norton Farm

"We watch the babies when they play in the field, chasing each other around and around. You start to see who has that natural drive, who likes to race, who wants to be first," he shared. "Then later, when we get them gated up, pacing or trotting, we see that competitiveness really come out."

Graffam noted that the racing spirit is unique to every horse and not something you can really track in a pedigree black book or an online database. You just have to witness it.

"I've always said, that comes from within," Graffam said. And when it does, that's when the magic of breeding champions really comes to life.

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