BREEDPLAN In Action: Chapelton Farm





The Biggar family
Location: Castle Douglas, Scotland
Breed: Aberdeen Angus & Beef Shorthorn
Herd Size: 170 stud breeders

For Duncan Biggar, BREEDPLAN is an essential tool in breeding the kind of profitable cow the Biggar family's production system, and those of their clients, demand: fertile, efficient, easy to manage and capable of thriving outdoors year-round.

Breeding Cattle That Work
At Chapelton Farm near Castle Douglas in southwest Scotland, the Biggar family runs around 80 Beef Shorthorn stud females, 70 Aberdeen Angus stud females and 220 commercial crossbred cows. Strong heifer replacement numbers mean more than 400 females are now joined annually. The Beef Shorthorn stud dates back to 1942, while the commercial herd contains generations of homebred females, with some cow families traceable back to eight generations. That depth of pedigree and performance information provides a powerful foundation for genetic improvement.

Despite running two stud breeds, management is deliberately simple. The Aberdeen Angus and Beef Shorthorn herds are run together for most of the year, grazing the same country under identical conditions and separated only for joining. Young bulls are wintered together, and selection pressure is applied equally across both breeds. "If they can't perform in that environment, it shows pretty quickly," Duncan says.

This consistent management ensures both breeds are selected under the same commercial conditions and helps identify cattle that are genuinely functional and efficient. The environment itself is relatively forgiving by Scottish standards - wet, but rarely extreme - allowing for strong grass growth. Even so, the Biggar family's system is deliberately low-input. The commercial cows are largely run outdoors, wintering on forage crops and bale grazing before calving in spring and moving onto pasture. Given the relatively high rainfall, some cattle are housed during winter to protect the land, but the aim is always to keep the housing period as short as possible. Ultimately, Duncan believes cattle should be capable of thriving in outdoor systems, whether or not they are housed for part of the year.

"We have to breed a cow that can live outside 365 days a year," he says. "If someone wants to house her, fine, but she has to cope without it."

That philosophy shapes every breeding decision. The Biggar family are not chasing maximum production at any cost. Instead, Duncan is focused on breeding what he describes as the "most efficient cow" - one that balances production with minimal labour, feed and management inputs. Fertility is non-negotiable, longevity is essential, and temperament and structural soundness must support efficient day-to-day management.

Using BREEDPLAN to Balance Performance and Efficiency
BREEDPLAN EBVs play a central role in helping the Biggar family make more informed breeding decisions and drive long-term genetic progress towards those goals.

Duncan uses BREEDPLAN EBVs to guide selection for key traits including birth weight, calving ease, growth, mature cow weight and milk. By combining objective genetic information with visual assessment, he can make breeding decisions with greater confidence. For him, one of BREEDPLAN's greatest strengths is the ability to balance traits and avoid unintended consequences.

By considering Growth EBVs alongside Mature Cow Weight EBVs, the Biggar family is able to identify genetics that improve performance while maintaining efficiency within the breeding herd. "We're trying not to breed enormous cows," Duncan explains. "We want decent growth, but we don't want the maintenance requirement that comes with cows getting too big."

Birth weight is another trait he monitors closely. While Calving Ease EBVs are important, Duncan also places considerable emphasis on Birth Weight EBVs as a practical tool for managing calving risk, particularly in replacement females.

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“If the herd is genetically predisposed to give 50 kilo calves, we’re going to have more problems than a herd with an average that's closer to 38 kilos.”

Using Birth Weight and Calving Ease EBVs together helps the Biggar family make more informed joining decisions, particularly when selecting sires for heifers. The aim is to minimise calving difficulty without sacrificing the growth and performance needed in the next generation.

“A great suckler cow,” Duncan says, “is one that looks after herself, breeds back every year, raises a good calf and does it all with as little feed and additional input as possible.”

Data Drives Genetic Progress

The disciplined use of BREEDPLAN extends into annual mating decisions. Each year, Duncan compiles a list of available AI and natural service sires and evaluates them against the breeding females in the Biggar family herd. By considering EBVs alongside inbreeding coefficients, he can identify mating combinations that maximise genetic progress while maintaining genetic diversity and herd functionality.

Duncan believes BREEDPLAN is only as powerful as the data behind it, which is why performance recording remains a cornerstone of the breeding program. “Weights are the easiest thing in the world to record,” he says.

The Biggar family routinely records birth, calf growth and mature cow weights for BREEDPLAN, with electronic identification making data collection straightforward and repeatable. Mature cow weights are particularly important in a system focused on efficiency, providing valuable information for the Mature Cow Weight EBV and helping monitor the balance between growth and maintenance costs.

In addition, all females are pregnancy scanned, while all pedigree cattle are routinely measured for rib fat and eye muscle area (EMA) through ultrasound scanning. Temperament is also assessed and incorporated into selection and culling decisions. These records are collected consistently year after year, creating a dataset that complements visual assessment and provides objective information to support breeding decisions.

Opportunities for Future Recording

Looking ahead, Duncan believes there is significant value in expanding the range of traits routinely recorded within UK herds. Traits such as days to calving, body condition score and temperament are important drivers of efficiency and profitability in the Biggar family system, and increased recording would provide the data needed for BREEDPLAN to generate EBVs for these traits, giving breeders additional tools to make genetic progress in areas that directly influence profitability and efficiency.

Duncan also sees merit in greater emphasis on structural traits such as feet and legs, given their influence on longevity and lifetime productivity. For the Biggar family, these traits are critical to breeding the efficient, low-maintenance cow their system demands.

Staying the Course

For the Biggars, the ultimate measure of success is how genetics perform in the paddock. That philosophy also shapes the way they work with commercial bull buyers. Rather than overwhelming clients with data, they focus on understanding their breeding objectives and using BREEDPLAN information to identify the genetics best suited to their operation. “At the end of the day, they just want to know which bull is right for them.”

The message Duncan returns to repeatedly is that genetic improvement is a long-term process. Recording data and using EBVs will not transform a herd overnight, but consistent selection guided by objective information delivers cumulative gains over time. “For us, it’s about knowing where your cows are and identifying a direction of travel,” he says. “We can’t make progress if we can’t identify something to improve and stick to a philosophy that will fix it. The priority is consistency of direction rather than chasing extremes. Over time, that’s what drives meaningful genetic improvement for us.”

At Chapelton Farm, that philosophy is clear: breed cows that work. Through a strong commitment to performance recording and the consistent use of BREEDPLAN, the Biggar family continues to make informed breeding decisions that are building a herd designed for efficiency, resilience and long-term profitability. Their experience demonstrates how objective genetic information, combined with a clear breeding objective and disciplined selection, can deliver lasting genetic progress.

