



GeneTracker - Frequently Asked Questions

What is geneTracker and what does it do?

GeneTracker is the UK's leading genomic testing service provided by NMR.

The UK's only non-tag, non-hair hassle free system takes a simple tissue punch from an animal's ear – leaving behind no tag whatsoever.

This tissue sample is then inserted into a sealed vial and posted back to the NMR Pannal office where it is processed and shipped to the laboratory for genotype processing.

The genotype generated as a result of DNA extraction and genotyping process is then submitted to DairyCo and Holstein UK for the creation of all production, health, fertility, PLI and type trait genomic evaluation data for an individual animal, plus the option to run a BVD test (if you are in England & Wales only and you also receive a number of genetic recessives free of charge).

The results are then made available to the customer so they are able to make a more accurate and informed decision on the future of that animal within their herd.

How do I order a test?

The tests are ordered by calling the Customer Services geneTracker number at Pannal which will be: **03300 241 334** - there is also a dedicated email address which is orders@genetracker.co.uk

Upon calling this number and one of the Customer Services team will talk them through the test options, costs and processes.

Do I have to milk record with NMR to use the service?

No. Any CIS or UDF customer can also use the service, however you DO have to milk record with one of those three organisations. If they are a non-NMR customer, they will be asked to supply their CIS/UDF log-in details which are needed to load the herd up onto the system to search for the animal details. This is vital for the accuracy of the test and ensuring accurate animal IDs. All log-in details will strictly only be used for this purpose and a data protection agreement will be available if required.

How much will it cost?

The price will depend on how many tests ordered. There are several service options based on volume and a discount will apply for greater volumes. We offer a basic 'pay as you go' service where customers just order tests as they need them and pay for them as we receive these and send the test off to the lab.

We also offer a discount for tests on orders over 100 for a 12 month period, which can be paid for on an interest free monthly basis over 12 months to help cash flow.

Please refer to the pricing document which can be found in a link from the homepage of the www.genetracker.co.uk website for more details.

What are the criteria for animals? Do they have to be pedigree?

No they do not need to be pedigree. For accurate results however we must insist that both the dam and sire should be identified within the milk recording system.

Can I test bulls as well as females?

To begin with geneTracker will only offer a female testing service. However, the intention is to extend this out to test males later on this year. The testing of males on an either 'official' (where the genomic evaluation can be published and the bull appear on lists) or 'unofficial' (where the genomic evaluation can only be used for private herd management purposes) attracts extra costs, which have been set by the UK Genomic Consortium. These costs will be provided at the point when this becomes available.

What are the testing options?

Initially GeneTracker will offer the LD or Lower Density 17K SNP chip. The reason for this is that for the purposes of herd management; it is advised that farmers use the lowest 'density' of chip – which is also financially the best value for screening. For those wishing to genotype a high value flush cow etc. it may be advised that a higher chip density be used to help increase the accuracy of the progeny evaluation. These higher density chips will become available through GeneTracker later in the year.

When we begin offering a bull testing service, rules apply in the UK meaning that these have to be evaluated on either the Medium or very HD chip options.

The prices for the 17K test are available on the website www.genetracker.co.uk

Do I get any other information beside production, health, fertility and type traits?

Indeed. The customer also receives results for a whole suite of known 'genetic recessives' included in the price. Most notably these include such recessives as BLAD, Kappa Casein 1&2, coat colour (red factor etc), polled, Fertility Haplotypes HH1, HH2, HH3.

The customer can also choose to pay for some extra tests, which attracts an additional 'Royalty Fee' because private companies own the rights to these. These include CVM, Brachyspina and Beta Casein A1 & A2. The costs for these extra tests are available within the pricing schedule.

Can I also do a BVD test?

We will be offering the opportunity to have the sample submitted for a BVD test. This service is very new and is only offered to farmers in England and Wales at this time. This is because Scotland and Northern Ireland have their own schemes in operation with a 'tag & test' principle that isn't the same as our system.

The cost for this additional option will be £5.50 +VAT

Can I receive a US GTPI evaluation?

A number of breeders will be interested in receiving not only a UK GPLI or GTM evaluation, but also a US index known as the 'GTPI'. This index has become something of an unofficial 'International Benchmark' within the genomic world. May breeders wishing to sell/buy cattle and embryos on the International market will wish to see the GTPI figures.

We are in negotiations with Holstein USA to set this option up for our customers, however this is not yet in place due to time constraints at their end. We fully intend to submit the genotype to the US for evaluation of those animals the farmer wishes to have done once we have the agreements in place. Therefore the customer can proceed and genotype the animal (receiving UK indexes) and once the agreement is in place, the genotype will just be submitted to the US – no need to re-test the animal .

There will be an additional cost for this, which will be publicised when this option becomes available.

Can I do a parentage validation?

At this time we are working on a solution to be able to provide a clear parentage or sire validation service as part of the evaluation. This is not yet ready so this option will appear as an upgrade this year.

However as part of the genomic evaluation system, the evaluation units will try to identify if a sire is incorrect. If the sire is incorrect though, this will slow down the time it takes to receive the result back as corrections have to be made to the ancestry and the evaluation then re-run the following month.

What will I receive in the post after I order?

The customer will receive in the post an individual TSU (Tissue Sampling Unit) for each animal that will be specifically bar-coded and attributed to that animal. These will be provided in individual bags that are labeled and also contain individual paperwork for each animal. This is designed specifically to minimize ID mis-matches and issues.

The customer needs to ensure they ONLY use the TSU unit, paperwork and bag specifically linked to that animal and it is advised that they test the animals one at a time to ensure that they keep the TSU unit together with the paperwork and sample the correct animal each time so they don't waste samples and incur unnecessary costs for re-sampling.

In terms of the ear-notch system – can I use my existing ear-tag applicator?

No, you will not be able to use an existing applicator unless it is an Allflex design, which is specifically suitable for this product. GeneTracker will supply a FREE applicators with all new orders, however all second applicators will attract a charge.

How long does the result take to come back?

Genomic evaluations are run every month with the results being published on the first Tuesday morning of each month. Dependent, upon which stage of the process the customer manages to get their sample back to the office, will depend on whether or not the sample makes it into the next available evaluation.

If all is well – i.e. the tissue sample is of a high enough quality to process at the lab, they manage to extract enough DNA to test accurately and there are no parentage conflicts found during the evaluation process, the fastest you could receive a result back is within a month of testing.

If the submission deadline to the lab is missed, then samples have to wait for the next testing cycle and thus may take 6 weeks to 2 months to come back.

There may also be delays as explained above, if the animal has an incorrect Sire/Dam identified which will need to be corrected and re-submitted the following month for re-evaluation.

A full list of submission dates and deadlines will all be available through the Customer Services team and the www.genetracker.co.uk website.

How does the customer view their results?

A new website front-end for geneTracker has been developed which is found at www.genetracker.co.uk

The customer will go to this website and put in their log-in details. For NMR customers, this will be their Herd Companion log-in details. For non-NMR customers, they will use specific log-in details that will be given as they first sign up for the service.

The results are then available for viewing through iReports. These are in the format of both fully interactive, re-rankable lists as well as a more detailed individual animal report. Examples of these can be found on the geneTracker website.

Can any breed use the service or is it just Holsteins?

Initially geneTracker will be available to the Holstein breed only. As the service becomes bedded in and we have access to genomic evaluations for other breeds, these will be introduced.

Where can I find more information?

All the information the customer should need can be found at www.genetracker.co.uk this includes the dates for submission, result release dates, pricing, explanations of the genetic recessives, example reports etc. However if the customer can't find what they are looking for and still has questions – they should call the geneTracker Customer Services number: **03300 241 334** alternatively there is also a dedicated email address which is orders@genetracker.co.uk