

DNA TESTING - SNP UP-GRADE

DNA TESTING SNP UPGRADE

In order to have been eligible for the SNPs DNA upgrade at the DCAI subsidised price members must have submitted a list of the animals they wanted tested by 23rd of December 2017

If you did not nominate your animals by the December deadline you can still up-grade at the GAA discount SNP Up-grade price. GAA has now extended their deadline for the receipt of nominations to the end of March 2018

This is still a significant discount but conditions do still apply.

- Nominated animals must have previously been DNA tested through DCAI. Animals tested privately are not eligible for the discount.
- Testing is dependent on Geneseek still having tail hair samples on file and that enough DNA can be extracted from those remaining samples.
- The offer is not open to any new animals that have not been MiP DNA profiled before.
- Animals previously tested by blood-typing only are not eligible.
- Only current full financial and Junior DCAI Members will be eligible to take part in this offer.
- Only one test, Seeksire or GGPLD 50K, can be ordered for each animal.
- SEEKSIRE: \$19.80 (gst inclusive) per animal tested
- GGPLD(50K): \$36.30 per test.
- These GAA discounted prices apply for animal nominations received by the DCAI made **between the 23rd December 2017 and 20th March 2018.**
- Additional stand-alone tests including Horn/poll, PHA, BD1, BD2 and colour cannot be ordered in conjunction with this up-grade offer and must be ordered separately. (See DCAI 2018 price list.) New Dexter Specific test request EForms are being developed by GAA and will be available on line in the coming weeks.

SELECTING ANIMALS TO BE NOMINATED FOR RE-TESTING.

- **Only include animals that you intend to breed from to enable DNA parent verification of any calves being born in the future.**
- Testing of your active bulls and stored semen would be advisable.
- Owners of **multiply owned animals** should discuss who is responsible to SNP test those animals. Only the nominated person should include the animal on their list.
- **Retrospective testing on antecedent animals or inactive stock is not required and will have no value.**

NOTE: SNP testing of animals is not mandatory at this time. If you choose to wait until a later date when you want to DNA calves you can do that. Please keep in mind the cost of upgrading in the future will be significantly higher.

DCAI has nominated all the **Accredited and Approved AI Sires** listed on the DCAI bull catalogue for the SNP up-grade.

NOMINATING ANIMALS TO BE DNA UPGRADED TO SNP

- In order for animals to qualify for SNP up-grade at the GAA discounted price between 24th December 2017 and 20th March 2018 members must submit the list of animals on the form provided.
- **Nominations must be submitted to the DCAI Registrar (Janelle Johnson)**
- Nominations must be submitted on the form provided. The form is available on the DCAI website as a downloadable document in PDF and Excel formats. The form is located under DCAI Documents and Forms or by using the link on the Home Page
- Forms can be emailed, posted or faxed to the DCAI Registrar at LBC (**Note: DO NOT send test requests for this upgrade to Geneseek.**)

LEVELS OF TESTING

Sarah Buttsworth of GAA has advised that the SNP test most relevant to most DCAI Dexter Breeders is the Seeksire.

This provides the necessary information to enable parent verification of any calves being born in the future.

The next would be the GGPLD (50K). This includes all of the information of the Seeksire and significant amount of genetic information including horn/poll and some colour markers making testing for these traits much cheaper in the long term.

NOTE: The price quoted for GGPLD (50K) does not include test results for these additional traits - it simply records the markers to make testing for additional traits possible and cost effective.

Add-on and stand-alone test options for additional traits are available on the DCAI price list for 2018. (see page 11)

PROCESSING and BILLING

When the Registrar has received your list of nominations the information will be collated into a list with all other nominations.

The completed list will be sent to Geneseek.

Geneseek will assess the list and schedule a time-frame for testing all the Dexter nominations.

The normal turnaround time will not apply as Geneseek are going through this process with all breeds in order to transition to the new SNP testing protocols.

The Registrar will forward confirmation that the SNP up-grade tests you ordered having been completed. An invoice will be sent to you for all animals nominated by you for testing.

PLEASE NOTE: Confirmation of tests will not include a new certificate of parentage and matrix of markers. It will only be confirmation that the SNP test has been completed.

Stand-alone tests, add-on tests and bundling are not available in conjunction with the transitional discount testing options.

Stand-alone tests for PHA and Chondrodysplasia (BD1 & BD2) are available as are tests for some coat colours and Horn/Poll. Some of these are included in cost effective bundles and add-on test options that have been listed in the new DCAI 2018 Price Schedule.

DNA TESTING - SNP IN THE FUTURE

UPGRADE SUMMARY:

You do not have to do anything now if you do not want to.

You can upgrade your animals to SNPs at anytime in the future using the SeekSire or SNP ARRAY 50K options on the DCAI price list.

SNP UPGRADE DEADLINE

The original GAA deadline for breed societies to provide lists of animals nominated for SNP upgrade testing at their discounted price was 30th December 2017.

DCAI decided to provide the additional incentive of an additional subsidy to encourage members to submit their nominations early. The deadline for the DCAI subsidy was **23rd December 2017**.

GAA has subsequently extended their time-line for all breed societies to submit lists of nominated animals. This has provided an extended opportunity to DCAI members to access cost effective up-grade testing.

Members are encouraged to take advantage of the extended time-line to ensure all their current breeding animals have been DNA upgraded to the SNPs DNA/PV system.

Animal nominations will need to be submitted by 20th March 2018. An Updated form including the GAA discount rates is available in this publication and on the DCAI website from December 24th.

The SNP DNA up-grade test options are as follows:

SEEKSIRE: The cost per animal nominated for this upgrade discount offer is \$19.80 (gst inclusive) per animal tested. Suitable for DNA/PV to future calves and some additional stand alone testing.

GGPLD 50K: The cost per animal nominated is **\$36.30** GST inclusive per test.

GGPLD 50K includes all the information of SeekSire and many additional markers. This is suitable to animals that you may want to test for additional traits using the add-on options in the future.

PLEASE: submit your upgrade test order as early as possible to enable the Registrar to process and collate the information.

The DCAI 2018 Genomic Testing Price Schedule has been included on page 11. Tests for specific traits may be reliant on the animal having a SNP DNA profile. Please check before ordering.

HOW WILL DNA TESTING WORK FROM NOW-ON

Is the change to SNP DNA testing only for Dexter Cattle or does it apply to all breeds?

It affects all breeds including Dexter and all breed societies are going, or have gone, through the upgrade process.

Is SNPs available for Dexter cattle through DCAI now?

SNP testing will be available as shown in the price schedule. A Dexter specific order Eform is being developed by GAA and will be available on the DCAI website as soon as it is completed. Members will be notified as soon as the Eform is available on-line.

Members wanting to upgrade animals that have already been DNA tested can do so using the upgrade discount offer. Forms are on the DCAI website.

Do I have to have any of my animals upgraded to the SNP DNA profile?

No, it is not mandatory to upgrade any animals if you do not want to.

You can upgrade the DNA of animals at any time if and when you have a calf of that animal to be DNA / PV tested.

Will MiP DNA testing stop altogether?

MiP testing is only being offered by DCAI until June 30th 2018.

The availability of MiP testing being offered by GAA will depend on the demand and the viability of maintaining the service in the future. MiP testing will become more expensive as most breeds change to the SNPs testing and the demand for MiP reduces.

Can I still use the test kits I have?

Yes. The tail-hair test kits previously supplied by DCAI can still be used and will be accepted until the end of 2018. After that time only the GAA authorized sample kits will be accepted. Any samples submitted in other ways will attract an additional processing fee.

Will I have to pay for test kits in the future?

Yes. Test kits will attract a small fee once old stock has run out. The price of test kits is included on the DCAI price schedule.

Are there any changes to the DNA test order form for MiP DNA testing?

Yes. There is a new spread-sheet order Eform. The spread-sheet (EForm) has been changed to accommodate the new testing. The contract between DCAI & GAA has been finalised and an online order Eform specifically for Dexter Cattle will be available on-line.

Are the tests I need still shown the same way on the new form?

No. The new order form may look different and the codes used for tests may be different because the tests available have change. This will be self explanatory on the form.

Can I still order DNA tests through DCAI?

Yes. Ordering DNA tests is the same. A Test Request Eform similar to the one you have been using will be available on the DCAI website. The form will have all the new tests on it. Prices for tests can be found in the DCAI Genomic Test Price Schedule on Page-11 of this publication.

Do I need to submit my DNA test order by Email?

Yes. All new test orders going to GAA have to be sent by email on the GAA Eform and a printed copy included with the tails hair sample when they are posted to GeneseeK.

Orders for animals to be upgraded to SNP tested during the upgrade period go directly to the Registrar and can be emailed, posted or faxed.

If I have MiP DNA tests done on calves from now on will I have to retest later?

Probably. If an animal is MiP tested (the current DNA testing) any calves from that animal may not be able to be parent verified and the parent animal may need to be retested using SNPs in the future.

It will be more cost effective to nominate your breeding animals for SNP testing at the discounted rate before the March 20th deadline and then DNA your calves using SNPs.

If you do not have your existing animals upgraded during the GAA discount period, it still may be cheaper to have the parents SeekSire tested in the future and then DNA your calves using either SeekSire or GGP50K depending on your future testing needs.

Is DNA/PV going to cost more with SNP?

NO. The DCAI list price for the DNA /PV using SeekSire is the same as for MiP. The DNA /PV test will show on the DCAI price schedules and the GAA on-line test request Eform as - SeekSire Parentage (500+ SNP)

MiP DNA profiling is only being offered by DCAI until June 30th 2018.

For future SeekSire Parentage Verification, all nominated sires and dams must have a compatible SNP profile.

DCAI Genomic Testing - Price Schedule 2017/18

DCAI has finalised contract negotiations with GAA for the provision of Genomic testing services.

The change to SNPs genetic testing has brought with it a greater number of options for DCAI Members. The DCAI Council has effectively negotiated the best price possible for DNA testing and an extended range of add-on and bundled test options. In most instances DCAI is able to offer genomic testing to Members at a comparable or cheaper price than what was possible before.

The additional tests now available on the price schedule may cause a degree of confusion while people adjust to the new test names and options. We have endeavoured to present the new testing schedule as clearly as possible without creating a 20-page volume of extraneous explanations.

Seeksire stand-alone test is sufficient to establish DNA/PV to meet the requirements of registering female Dexter cattle if the parents have been SNP tested.

Bulls will need a PHA Free status established either by inheritance or by testing. PHA testing is available as a stand alone for animals with either an MIP or SNP DNA profile. This is also the case for

Chondrodysplasia. Please note that BD2 testing is only available as a stand-alone test.

Stand-alone tests are being offered at a cheaper rate than in previous years making the process of registering animals cheaper than it has been in the past. All tests for genetic mutations purchased through DCAI will be reportable including BD1, BD2 and PHA.

Discounted add-on and bundled test options will assist members who wish to test for a number of genomic conditions / traits at one time.

Microsatellite (MiP) testing is being phased out and DCAI has made a significant investment in ensuring Members can upgrade their existing active animals to accommodate the SNP testing of calves in the future.

Microsatellite testing will still be available through DCAI until June 30 2018. We advise members not to use MiP for DNA testing of animals from this point on to avoid the cost and inconvenience of needing to upgrade to SNP in the future.

The price schedule shown below will be revised in June 2018.

STAND-ALONE TESTS

Stand alone tests can be ordered individually at any time. *Seeksire parentage (DNA/PV) testing is dependent of both parents having a SNP DNA Profile. All other stand-alone tests apply to animals DNA tested using SNP or MiP

SeekSire Parentage (500+ SNP)	\$33.00	(not previously available)
<i>For SeekSire Parentage Verification, all nominated sires and dams must have a compatible SNP profile. Horn and poll testing requires at least SNP 50K</i>		
Microsatellite Parentage	\$33.00	(Previously \$30.00) (Available through DCAI to 30 June 2018)
Chondrodysplasia Test 1 (BD1)	\$33.00	(previously \$35.00)
Chondrodysplasia Test 2 (BD2)	\$33.00	(previously \$35.00)
Pulmonary Hypoplasia with Anasarca (PHA)	\$33.00	(previously \$35.00)
Coat Colour (red/black)	\$33.00	(not previously available)
Horn/Poll (H/P)# (based on SNP markers - at least GGP50K)	\$33.00	(not previously available)

SNPs ARRAY ELIGIBLE ADD-ON TESTS

GGP-LD SNP ARRAY (50K)

The use of SNP 50K allows for cost effective "add-on" tests to be done at the same time as DNA P/V or at any time after. This is a useful test for those members who do not need the whole gamut of tests but may want just one or two. One or more **SNP GGP eligible add-on** tests can be ordered at the same time as GGP-LD SNP 50K ARRAY or at any time after.

GGP-LD SNP array (50K) (Including PV):	\$50.50	(not previously available)
+ Chondrodysplasia Test 1 (BD1 only)	\$20.00	
+ Pulmonary Hypoplasia with Anasarca (PHA)	\$20.00	
+ Horn/Poll (H/P)# Horn-Poll prediction based on SNP markers	\$20.00	(not previously available)
+ Dun Colour Test	\$20.00	

DEXTER STANDARD BUNDLE

This bundle is the best option for anyone needing to do all three tests at the same time as doing their DNA / PV. It offers an additional \$14.50 saving as apposed to selecting the tests separately from the above schedule of add-on tests.

Dexter Standard Bundle - SNP: \$96.00 (not previously available)

Includes: **GGP-LD SNP array (50K)**
 + Parentage Verification (SNP only)
 + Horn/Poll (H/P)#
 + Chondrodysplasia Test 1 (BD1)
 + Pulmonary Hypoplasia with Anasarca (PHA)

ADDITIONAL SERVICE CHARGES

Re-nomination of sires or dams	\$6.00	Hair Cards (after existing stocks run out)	\$2.00
External Profiles added (PF)	\$10.00	Non-approved sample packaging	\$2.20
Urgent Fee	\$12.00	All other sample types additional cost.	\$12.00