

member as a Master Breeder. Over 120,000 Holstein clas-

s cows that thrive in modern production systems. Most

sires.

Sue Cope, Chief Execu-

tioning standard and offers the herd a level of superior ranking."

# Genomic tests to aid fight with TB in cattle

By Anita Howells

THE NMR has won a tender to carry out 10,000 genomic tests on Holsteins in TB affected areas of the UK from this month.

The project for the Agriculture and Horticulture Development Board (AHDB) will see genomic results and ancestral data on each animal used to expand the national database of genetic evaluations.

It will look in more detail at the TB Advantage trait that has been developed by AHDB Dairy, and in the development of a new state-of-the-art genomic prediction tool.

TB Advantage helps dairy farmers identify bulls with higher resistance to TB following research undertaken

by Scotland's Rural College EGENES in 2016.

NMR is selecting 60 to 70 herds to test in TB-affected areas. "Tissue samples will be taken from all the milking animals in the herd, milkers and dry cows, and these will be genomically tested through our GeneTracker service," said NMR's project co-ordinator, Justin Frankfort.

NMR will be providing the results and data to AHDB. The significant increase in genomic data will be fundamental in the development of the new tools that, in turn, will enable producers to identify animals that have a higher natural resistance to TB and make informed decisions about which cattle they choose to breed.

Many producers are already using the TB Advan-

tage index provided for AI sires. This new data will help to increase its reliability. It will also provide genomic data on females so, in time, producers will be able to select cows and heifers with a TB Advantage.

"Producers participating in the project will also have access to the AHDB Dairy provided genomic results on the NMR Herd Companion website. So not only will it help in the longer-term development of the new breeding tools, it will also provide these producers with a herd genomic base from which they can make improved breeding decisions."

The herd genomic base is an ideal starting point for using GeneTracker as a management tool to predict, with much greater reliability than has been possible

before, the likely value to the herd of young heifer calves.

"Knowing the genomic value of each cow and heifer also enables more accurate breeding, with a clear picture of those from which to breed the next generation of milking cows, and those to breed to beef. It is also of value to herds with elite heifers who may opt to use embryo transfer."

As part of the project, NMR will also be identifying and genomically testing around 500 dairy bulls. This additional genomic data will also be added to the national database and it will improve the reliability of the TB Advantage data, already available for many UK dairy sires.

The project is in partnership with the Centre for Innovation Excellence in Livestock (CIEL) and focusses

specifically on dairy cattle. Innovate UK has granted AHDB and CIEL £360,000 of funding, which will enable them to buy the genotyping services required to genotype these cattle.

"This funding will allow a far greater number of cattle to be included in the database, ensuring greater accuracy when the improved genomic prediction tool is put into practice. It has game-changing potential for the dairy industry," said Marco Winters, head of animal genetics for AHDB Dairy.

NMR starts testing this month. Genomic results via GeneTracker are available within six weeks and by mid August the company estimates that over 10,000 extra sets of genomic data will be available.

Mic  
Natio  
Seme  
deligh  
HYB.  
"The  
ture  
indus  
recogn  
cation  
will a  
to pus  
and h  
over t  
Holst  
boasts  
up to 2  
24 reg  
Englan  
and N

It pr  
fantas  
exper  
practi  
tial sk  
ing an  
HYB p  
ers fo  
husban  
ship fu



Andre  
receiv  
Presid  
David T