



Interim Executive
Secretary
Roger Neitzel

THOUGHTS

From The Secretary

The word is “GENOMICS”. Or perhaps more specifically “Genomic Evaluations”. It was 1969 and I was sitting in a room in the old Dairy Science building on the UW-Madison campus with perhaps six University dairy and genetics professors, answering questions and defending my thesis. When we were nearing the end of the session, one professor asked “If money and technology were no object, what would be the one goal you would like to accomplish?” It sort of caught me off guard, but my reply was, “To determine the specific effect of each gene on every chromosome and make perfect selections based on those results.” While I didn’t know it at the time, the word I was referring to was GENOMICS or Genomic Evaluations. My 1963 Webster dictionary describes Genome as one haploid set of chromosomes with the genes they contain. The adjective form is Genomic.

Now some 40 years later, on August 18, 2009, the first Brown Swiss Genomic Evaluations have become a reality and are published in this very issue of the Bulletin. It is exciting to be able to play a small part in providing Brown Swiss breeders with this additional selection tool, which will enable them to compete favorably in the market place. And NO, genomic evaluations are not perfect yet, but they are better than parent averages or limited daughter data, and they will only improve as more data is collected. This is where you, the breeders and allied industry, played a big part in making this possible with your contributions to the Genomic Research Fund. Thanks to all of you for your support. Now I would like to think that I gave my answer above on August 18, 1969, but I have no idea of the date

of that examination. While I have had no part in the research and development of this new tool, it has been exciting this past year to see the rapid development of this technology and be a part in providing the results to you.

So now that we have Genomic Evaluations, how do we use them, what do they mean, what affect will they have, and how can you test your animals? First let’s look at the reports, including the Available Sires published in this issue. The basic report remains unchanged, with the exception of the two columns which previously indicated if a sire’s evaluation contained Interbull or Mace (M) information. This column now also indicates if the bull has been Genomically tested (G) and whether the genomic data has been combined with either US or Mace results. While all the sire reports follow this same format regarding Genomics, your Genetics Committee and Board have revised other sire reports to accommodate the value of genomic results. The Complete Sire List now includes young genomically tested sires with no daughter data along with daughter- proven bulls. Thus, you will see many young sires with zero daughters in zero herds. Many of these young bulls are at the top of the list. That’s genetic progress. This list is available on the Association’s online database system. A new list, The Top 100 PPR Bulls, has the requirements that the production reliability must be at 60% or higher, the bull have a NAAB code, and the bull have at least 10 classified daughters. This list will be published in the Performance Summary and is available on the online database system. All reports are also available on the association website, www.brownswissusa.com.

While the incorporation of genomic evaluations has given a good boost to the reliability over parent averages as well as sires with limited daughter data, this is still a tool in progress. We are in the process of evaluating just what those results mean and what affect they will have in future selection processes. Dave Kendall, Director of Genetic Research, will be expounding on these areas in the October Bulletin. Be sure to watch for the article as he has found some exciting facts.

During the early stages of development, the primary focus was on the sire side. While a few females have been tested, about 43 I believe at this time, breeders interested in testing females may contact the association office to request a test kit. The preferred source of material is hair, although blood can be used. The sample is processed at GeneSeek and those results forwarded to USDA to create a genomic evaluation. These evaluations are processed six times a year. However, official results are posted only three times a year at the normal genetic evaluation runs in January, April, and August. Unofficial results are sent to the owner, but are not available for publication until the official results are released. Testing fees are currently \$250 for females and \$750 for males. A reduced rate of \$225 is available to those donating at least \$500 to the Genomic Research Fund. Please contact the office to request a testing kit.

Looking ahead – Watch for more details on genomics from Dave next month. The National Show season has begun. We look forward to seeing many of you on the Tanbark Trail. Good luck to all. Until then --- Roger