

**Minutes
Dairy Committee
National Animal Germplasm Program
Baltimore, Maryland
July 24, 2000**

The Dairy Committee of the National Animal Germplasm Program met in Baltimore, MD in conjunction with the American Society of Animal Science and the American Dairy Science Association. Members in attendance were: Les Hansen (chair), Harvey Blackburn (executive secretary), Cari Wolfe, Dennis Funk, Curt Van Tassell, Dick Frahm, and Melissa Ashwell. S.K. Ho from Canada also participated in the meeting.

Participants discussed diversity issues confronting the dairy industry. A key item was the small effective population size for all the major dairy breeds. Les Hansen reported a calculated effective population size of approximately 30 head for the Holstein breed, with the other breeds being slightly above or below the number of Holsteins. Denny Funk relayed that even though his company is utilizing New Zealand Holstein sires the pedigrees of these bulls trace back to US genetics. This underscores how globally pervasive US Holstein genetics have become. With such concentration on US genetics the committee expressed concern about the declining numbers of European East Friesians.

By-in-large long-term genetic research dairy cattle lines have been eliminated from the U.S. research system. As a result the committee believes the remaining populations are nationally important resources and therefore supports efforts to maintain live animal populations and where the lines have been cryopreserved to assure that these resources are secure for future use. Quantification of the status of research lines should be addressed. The committee identified three populations to inquire about, these are: University of Minnesota, Virginia Tech, and the University of Tennessee, Les Hansen and Cari Wollfe stated they would make the needed contacts and report back to the committee the status of these populations.

The issue of a national survey was discussed. Other species will have to survey breed associations and/or primary industry sources to determine breed population sizes. The committee concluded that much if not all of the population data needed are already resident in the DHIA and/or the NAAB databases. Therefore DHIA and NAAB should be the primary sources for information concerning dairy breed population size and breed average information.

Germplasm Acquisition:

The committee was still in agreement that germplasm acquisition should be primarily accomplished through the major AI studs as presented in the implementation plan. In the plan every tenth Holstein bull and every bull from the other 5 major breeds entering a progeny test would have 20 units of semen sent to Ft. Collins. If agreeable with AI studs it would be desirable to collect 40 straws per bull to speed up the collection process. The committee was in agreement concerning a breed collection being composed of an Original Collection, Evaluation Collection and a Base Collection, as defined in the implementation plan.

A draft policy on storage of private sector germplasm was presented to and accepted by the committee. Opinion was expressed that a 10 year time frame should be more than adequate considering the speed at which genetic change is being made in the industry.

Information System Development and Software:

A brief overview of the database being developed was presented. Several committee members articulated the need to be sure the NAGP database is compatible with the DHIA database and where possible utilize the developments already accomplished by DHIA.

Curt Van Tassell stated that accessing individual animal phenotypic information is probably problematic but full access to EBV is possible.

The committee also expressed that the database be able to present and access QTL information.

The committee was informed of the beef committee's efforts in developing software to cluster animals by genetic relationship. The committee was interested in this effort and saw the potential for its application with dairy breeds.

Committee Membership:

The committee agreed to expand the committee membership to the following composition:

- 2 – USDA/ARS (Ashwell and Van Tassell)
- 2 – Land grant university (Hansen and Schutz)
- 1 – NAAB (to be named)
- 2 – Industry at large (Funk and Sattler)
- 1 -- Breed Association (Wolfe)
- 1 – USDA/ARS Executive Secretary (Blackburn)
- 1 – USDA/CSREES ex officio (Frahm)

Actions for the Next Meeting:

The next committee meeting was set to coincide with the National Sire Analysts Meeting in Beltsville, MD. The meeting will be either on October 22 or 23.

In preparation for this meeting the committee decided to develop an MOU between ARS and the major studs to enable the collection of bull semen. Preferable a draft of this document will be circulated to the bull studs prior to the October meeting and the committee will then make an oral presentation to the bull studs at the meeting. Melissa Ashwell and Harvey Blackburn will work on this.

It was suggested that an article describing the NAGP program be prepared for popular press (e.g., Hoards Dairyman and other trade publications). Curt said he would take the lead on this and would enlist the assistance of other committee members.